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ANNUAL

of the **Department of Social
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Humanities**
at University of Rijeka
– Faculty of Medicine

*Zbornik radova sa
znanstvenog skupa
Jezik medicine-od
geneze do kulture i
etike komunikacije*

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Katedre za društvene i
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Rijeka/Croatia

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Program konferencije / Conference Programme

Jezik medicine – od geneze do kulture i etike komunikacije */ The Language Of Medicine – From Its Genesis To The Culture And Ethics Of Communication*

Četvrtak, 10. 5. 2012. / Thursday, May 10, 2012

Medicinski fakultet u Rijeci / *Faculty of Medicine, Rijeka*
Rijeka, Braće Branchetta 20

9.00 – 10.00 **Prijava sudionika / *Registration:***
(Aula Fakulteta / *Entrance Hall*)

10.00 – 10.30 **Svečano otvaranje skupa / *Conference opening:***
(Predavaona 1 – Prizemlje / *Room 1 – Ground floor*)

Plenarna izlaganja / *Keynote lectures*
(Predavaona 1 – Prizemlje / *Room 1 – Ground floor*)

10.30 – 11.15 **Françoise Salager-Meyer, María Ángeles Alcaraz Ariza,
Marianela Luzardo Briceño** (*University of Alicante, Spain*)
**Medical Case Reports from a Diachronic Perspective (1840-
2010):**
Titles and Authorship
Predsjedava / *Chairing: Anamarija Gjuran-Coha*

11.15 – 12.00 **Diana Stolac** (*Sveučilište u Rijeci, Hrvatska / University of Rijeka,
Croatia*)
**Standardološke napomene uz naslove magistarskih i doktorskih
radnji iz područja medicine**
Predsjedava / *Chairing: Arijana Krišković*

12.00 – 12.30 **Stanka za kavu / *Coffee break***
(Aula Fakulteta / *Entrance Hall*)

IZLAGANJA PO SEKCIJAMA / PRESENTATIONS IN SESSIONS

Vrijeme / Time	Sekcija / Session		
	A	B	C
12.30 – 14.00	Vijećnica / Council hall Medicinska terminologija / Medical Terminology	Predavaona 8 / Room 8 Bioetika / Bioethics	Predavaona 9 / Room 9 Nastava medicinskog engleskog / Teaching Medical English
Predsjedava / Chairing	Anamarija Gjuran-Coha	Amir Muzur	Arijana Kršković
12.30 – 12.45	Džuganova Božena (Comenius University, Slovakia) English Medical Terminology – Different Ways of Medical Term Formation	Goran Mijaljica (Psihijatrijska bolnica Ugljan, Croatia) Jezik i stigma psihičke bolesti	Lorna Dubac Nemet (Sveučilište J. J. Strossmayera Osijek, Hrvatska) Različiti fokus u nastavi medicinskog engleskog jezika za studente sestrinstva medicine i biomedicinskih laboratorijskih tehnologija
12.45 – 13.00	Danijela Dorović, Milica Mirić (University of Belgrade, Serbia) On Some Morphosyntactic and Semantic Features of Serbian, French and Italian Phryonyms Referring to the Plants' Medicinal Properties	Orhan Jasić, Zuhdija Hasanović (Fakultet islamskih nauka u Sarajevu, Bosna i Hercegovina) Slijepi u islamu	Valentina Angelova Raynova, Svetla Dimitrova Trendafilova (Varna Medical University, Bulgaria) Natural Recycling of Grammar While Teaching Medical English
13.00 – 13.15	Katja Dobrić (University of Rijeka, Croatia) Medical Concepts in English and German	Amir Muzur, Iva Rinčić (Sveučilište u Rijeci, Hrvatska) Prefiks „bio“ i (ne)opravdanje bioetike	Danka Sinadinović (University of Belgrade, Serbia) The Importance of Strategies in Learning and Acquiring Medical English Vocabulary
13.15 – 13.30	Ivo Fabijanić, Frane Malenica (Sveučilište u Zadru, Croatia) Kratice u engleskome medicinskome nazivlju i njihova prilagodba hrvatskomu jeziku	Marija Definis-Gojanović, Mario Malički, Goran Mijaljica (Sveučilište u Splitu, Hrvatska) Prihvaćanje obdukcije – problem komunikacije	Maria Bujalková (Comenius University, Slovakia) Do the Methods of Historical Lexicology (Etymology) Remain Reasonable in Contemporary Medical Terminology Teaching?
13.30 – 13.45	Marin Vodanović, Ana Ostroški Anić (Sveučilište u Zagrebu, Hrvatska) Hrvatsko biomedicinsko nazivlje – izazov za jezikoslovce	Sandra Bošković, Damir Herega (University of Rijeka, Croatia) Terminology of Invalidity	Martin Javor (University of Prešov, Slovakia) Nursing in Territory of Slovakia-Institutional Changes
13.45 – 14.00	Diskusija / Discussion	Diskusija / Discussion	Diskusija / Discussion

14.00 – 15.00

Ručak / Lunch

(catering u auli Fakulteta / catered in entrance hall)

IZLAGANJA PO SEKCIJAMA / PRESENTATIONS IN SESSIONS

Vrijeme / Time	Sekcija / Session		
	A	B	C
15.00 – 16.30	Vijećnica / Council hall Bioetika / Bioethics	Predavaona 8 / Room 8 Nastava medicinskog engleskog / Teaching Medical Englishes	Predavaona 9 / Room 9 Komunikacija u medicini i zdravstvenoj skrbi / Communication in Medicine and Health Care
Predsjedava / Chairing	Amir Muzur	Iva Rinčić	Mirko Štifić
15.00 – 15.15	Dejan Donev (Centre for Integrative Bioethics, Macedonia) Ethical Aspects of the Contemporary Model of the Relation between Doctors and Patients	Aleksandra Žmegač Horvat (University of Zagreb, Croatia) Multitasking in Teaching Medical English	Jelena Hodak, Vesna Šendula-Jengić, Gordian Bošković (Bijiharijska bolnica Rab, Hrvatska) Značaj afektivne prozodije u kliničkom okruženju
15.15 – 15.30	Nada Gostić, Amir Muzur (Sveučilište u Rijeci, Hrvatska) Aktualizacija i prikaz prvog teksta o medicinskoj etici na engleskom jeziku	Evelina Miščin, Višnja Pavičić Takač (University J. J. Strossmayer, Osijek, Croatia) Istraživanje kolokacijske kompetencije neizvornih korisnika engleskoga jezika medicine	Mirko Štifić (Sveučilište u Rijeci, Hrvatska) Loša komunikacija i druge liječničke pogreške
15.30 – 15.45	Jeremić Vida (University of Belgrade, Serbia) Information in Informed Consent	Grishina Elena Evgenевна (Medical College 4 Moscow, Russia) Teaching the Language of Medicine	Morana Brkljačić Žagrović (Poliklinika „Sveti Rok M.D.“, Hrvatska) Komunikacija u zdravstvenoj skrbi
15.45 – 16.00	Sonja Anтониć, Željko Kaluderović (University of Novi Sad, Serbia) “Starring Medicine” Ethical Implications Regarding Presentations of Medical Content in Mass Media	Mariusz Górnica (University of Warsaw, Poland) Teaching Medical Translation to non-Medical Students – a Case Study with Some Theoretical Insights	Iva Sorta-Bilajac (Sveučilište u Rijeci, Hrvatska) Primjena teorije komunikacije Paula Watzlawicka na praksu komuniciranja u medicini i zdravstvu
16.00 – 16.15	Morten Pilegaard (Aarhus University, Denmark) The Patient Information Sheet: Towards Enhanced Readability	Éva Demeter (University of Szeged, Hungary) Medical Communication Training. A newly Established Postgraduate Programme	Martina Šendula-Pavličić (Sveučilište u Rijeci, Hrvatska) Smijeh i zdravlje
16.15 – 16.30	Diskusija / Discussion	Diskusija / Discussion	Diskusija / Discussion

16.30 – 16.45 Stanka za kavu / Coffee break

IZLAGANJA PO SEKCIJAMA / PRESENTATIONS IN SESSIONS

Vrijeme / Time	Sekcija / Session		
	A	B	C
16.45 – 18.15	Vijećnica / Council hall Nastava medicinskog engleskog / Teaching Medical English	Predavaona 8 / Room 8 Medicinski diskurs / Medical Discourse	Predavaona 9 / Room 9 Medicinska terminologija / Medical Terminology
Predsjedava / Chairing	Anamarija Gjuran-Coha	Arijana Kršković	Martina Šendula-Pavelić
16.45 – 17.00	Anthony Baldry (University of Messina, Italy) Medical English, Mediacy and Multimodality	Andrzej Łyda (University of Silesia, Poland) Lexical Strategies of Popularising Medicine	Helena Gizeleza (University of Latvia, Latvia) Medical Terminology in Latvian
17.00 – 17.15	Anna Loiacono (University of Foggia, Italy) Sociomedical Interaction in English: towards Virtual Hospital	Arijana Kršković (University of Rijeka, Croatia) PART FOR PART Metonymy in Medical Research Articles in English and Croatian	Grego Kim, Alessandra Vicentini, Daniele Russo (University of Milan, Italy) The Pro.bio.dic (Prototype of a Bioethics Dictionary) Project: Building a Corpus of Popular and Specialized Bioethics Texts
17.15 – 17.30	Albena Dobрева, Lachezar Popov (Varna Medical University, Bulgaria) Medical Register Acquisition By Means Of The Communicative Act of Speaking	Irena Brdar, Bojana Čoso (University of Rijeka, Croatia) English in Croatian Scientific Medical Discourse: A Corpus-Based Study	Kancheva Pavlina Grigorova (University of Sofia, Bulgaria) The Bulgarian Anatomical Terminology of Today
17.30 – 17.45	Bistra Tzaneva Galunska (Varna Medical University, Bulgaria) The LLP Erasmus for Medical Students – a Tool for Language Skills and Communication Improvement	Pavel Chavdarov Tsvetkov, Nadezhda Amudzhieva (Varna Medical University, Bulgaria) Doublespeak: Using Language to Conceal the Message in Political and Military Context	Maria Kostova, Minko Minkov, Ganka Bekyarova (Varna Medical University, Bulgaria) A Dictionary of the General Scientific Lexis as a Handbook for Foreign Medical Students
17.45 – 18.00	Csilla Keresztes (University of Szeged, Hungary) Teaching Genre Based Medical Translation	Isabel K. León Pérez (University of La Laguna, Spain) Advertising in English Biomedical Journals: A Rhetorical Qualitative and Quantitative Study	Jasna Novak Milić, Ivana Novak (University of Zagreb, Croatia) Linguistic Dilemmas in Cell Science and Medicine
18.00 – 18.15	Diskusija / Discussion	Diskusija / Discussion	Diskusija / Discussion

18.30 **Predstavljjanje publikacija / Presentation of publications**
(Predavaona 1 - Prizemlje / Room 1- Ground floor) Moderator: Amir Muzur

- In memoriam Ivan Šegota

- **Prezentacija publikacija / Presentation of publications:**

- Mirko Štifanić: *Pritužbe pacijenata: Kako do pravde?* (Rijeka: Hrvatski pokret za prava pacijenata, 2011)
- Mirko Štifanić: *Što sestre rade na fakultetu?* Kakve sestre i sestrinstvo trebamo? (Rijeka: Hrvatski pokret za prava pacijenata, 2012)
- Iva Rinčić: *Europska bioetika: ideje i institucije* (Zagreb: Pergamena, 2011)
- Amir Muzur and Hans-Martin Sass, eds.: *Fritz Jahr and Global Bioethics* (Münster: Lit, 2012)
- *Jahr vol. 2, no. 4* (ed. Iva Rinčić)
- *Jahr vol. 3, no. 5* (ed. Nada Gosić)
- *Proceedings from First International interdisciplinary conference „Bioethics – the Sign of a New Era: Bioethics, Media, Law and Medicine”* Ohrid, Republic of Macedonia, October, 21–23, 2011

Petak , 11. 5. 2012. / Friday, May 11, 2012

Medicinski fakultet u Rijeci / Faculty of Medicine, Rijeka
Rijeka, Braće Branchetta 20

Plenarna izlaganja / Keynote lectures

(Predavaona 1 - Prizemlje / Room 1- Ground floor)

- 9.00 – 9.45 **Violeta Goranova Tacheva** (*Varna Medical University, Bulgaria*)
Communication - the Master Key to the Patient's Heart
Predsjedava / Chairing: Arijana Krišković
- 9.45 – 10.30 **Sofija Mičić** (*University of Belgrade, Serbia*)
Languages of Medicine - Present and Future
Predsjedava / Chairing: Anamarija Gjuran-Coha
- 10.30 – 11.00 **Stanka za kavu / Coffee break**

JAHHR

IZVORNI
ZNANSTVENI
ČLANCI

ORIGINAL
SCIENTIFIC
ARTICLES

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of the Department of Social
Sciences and Medical Humanities
University of Rijeka – Faculty of Medicine

GODIŠNJAK
Katedre za društvene
i humanističke znanosti u medicini
Medicinskog fakulteta Sveučilišta u Rijeci

Hristo Boev*, Lachezar Popov**

Dickens's consumptive urbanity: science and sentiment in nineteenth-century healthcare

ABSTRACT

The representations in the oeuvre of Charles Dickens of pulmonary tuberculosis (TB) characterize him as a realist and, at the same time, as a sentimentalist who saw TB as the result of hard-heartedness and the disintegration of communal ties based on affection and mutual support. Using the critical approach of the medical humanities, this article relates Dickens's understanding about disease and therapy to problems in contemporary healthcare like the unexpected rise of TB in the 1980s, the challenge posed by drug-resistant bacteria, and the discontents with the assembly-line modes of professionalized medical services.

It argues that modern health policy and practice can profit from the records found in great works of literature of how communities in previous eras fought disease.

In "Consuming the Family Economy: Tuberculosis and Capitalism in Charles Dickens's *Dombey And Son*," Katherine Byrne concludes that "the representations of disease form a central concern of any social commentary novel written or set in the eighteen-forties, sickness of one kind or another being the perpetual accompaniment of the living conditions of the poorer classes in this era" (1). Considering that literature – and art general – constitutes a historical record of the conditions in which it was created (a precept of Marxist criticism that steers the following discussion),¹ Byrne's assertion does not come as a surprise. It is now a fact of general

¹ For a brief discussion of Marxist art criticism, refer, for example, to John Berger popular 1972 collection of essays *Ways of Seeing*.

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knowledge that in nineteenth-century Europe industrialization, urbanization and the population boom combined to bring about overcrowding, insanitation, poor diet and contaminated water, thus creating the perfect breeding ground for contagious diseases. In England, the heart of the Industrial Revolution, novelistic production abounded with accounts of the havoc caused principally to the lower classes in the cities by the "new" illnesses: typhus, typhoid, cholera, smallpox and tuberculosis. This paper examines the representations in the oeuvre of Charles Dickens, England's paramount novelist, of the greatest of these killers – pulmonary tuberculosis (TB), known in the period as *consumption*.

Dickens's depictions of the spread of pulmonary tuberculosis and its clinical picture may strike the contemporary reader with their medical precision. This precision is aptly explained with the fact that Dickens's creative period witnessed the inception of positive science – from sociology to medicine. Rather, the preliminary question that may arise out of the present literary interpretation in the vein of the so-called *literature and medicine movement* – a critical movement interested in the interdisciplinary connections between literary understanding and medical knowledge and practice – is why a novelist's vision of a life-threatening bacterial lung infection resonates with the scientific accounts of TB as well as with the official population records and statistics of his day about the ways the disease affected the city dwellers. This concord is not chancy. It is the product of the shift of human consciousness in the nineteenth century that altered the way in which the surrounding world was perceived and artistically recreated in the Western civilization. This shift was determined by the rise of the scientific method which was confidently displacing pre-modern modes of thinking. The theretofore unknown power of positive science to reveal the secrets of the universe fascinated all folks of life, including imaginative writers who recognized in science the tool that would enable them to attain literature's century-old aim to disclose the nature of things and then recreate it in artistic images. Hence, the emergence of literary realism with its faith that through the lens of science the writer will discern a veritable picture of reality. In *The Experimental Novel*, Emile Zola postulates that realist (naturalist) writers use their fictional universe as a laboratory for experiments in positive science, where the impact on the characters of social conditions and, on the other hand, of certain biological givens can be traced. However, the following exploration of Dickens's understanding of the causes, manifestations, and treatment of pulmonary tuberculosis gives special regard to a *differentia specifica* of his realism. Far from naturalistic crudeness, Dickens's writing mitigates the dismal aspects of human condition by a salubrious stream of sentimentalism. The paper opines that the representations of the plight brought by consumption on the dwellers of the nineteenth-century city found in a number of

Dickens's works define the great British author as a realist, who is capable of looking at the universe through a naturalistic lens, and, simultaneously, as a sentimentalist who believed that consumption ultimately stems from human insensitivity and neglect for their living environment and fellow beings, and who promoted love and solidarity rather than science as its cure.

Dickens's sentimentalism derives from the eighteenth-century moral philosophy of the Enlightenment, the age that laid the intellectual foundations of modern culture. In subsequent periods however, Louis Dupré writes, the nature of eighteenth-century thought has been severely oversimplified in dismissing it as rationalism. The rationalist tendency did indeed exist, but so did others pointing in the opposite direction. One might just as well describe the Enlightenment as an era of sentimentality. (xii-xv) As a moral and social philosophy, sentimentalism proclaimed that the ties of emotion are the principle force that sustains harmonious human communities. While sentimentalism was essentially an outgrowth of the cult of sensibility, by the end of the century the veneration of pure reason as the highest human faculty, accompanied by a corresponding suspicion toward feeling on the part of the influential German classical philosophers put sentimentalism on the defense. From philosophy it retreated into literary discourse, dominating the imaginative writing of Romanticism and exerting its sway on every subsequent literary period.

To a great degree, it is the sentimentalist mode that distinguishes the representations of pulmonary tuberculosis in Dickens from those found in contemporaneous non-fiction. Dickens's active years, the second tier of the nineteenth century, saw the inception of public health with its subfields – epidemiology, biostatistics, and environmental health. In order to ward dangerous contagions off the cities and promote healthy behaviors, the pioneers of public health were preoccupied with surveillance of the epidemics' spread and organization of the findings into statistical data as the basis for population health analysis. This epidemiologic knowledge and its applications did not remain confined to scientific treatises and official population records, but were disseminated as issues of general concern by the press. Newspapers adopted the statistical ways of presenting the incidence of tuberculosis and other communicable diseases, establishing correlations between urban conditions and morbidity/mortality, and charting trends in the development of the epidemics.² Thus, *The*

² According to Porta (22), epidemiology is generally defined as "the study of the distribution and patterns of health events, health characteristics and their causes or influences in certain populations." It is considered "the cornerstone method of public health research, and helps inform policy decisions and evidence-based medicine by identifying risk factors for disease and targets for preventive medicine." Epidemiologists are involved in the design of studies, collection and statistical analysis of data, and interpretation and dissemination of results (including peer review and occasional systematic review).

Northern Star and National Trades' Journal of Leeds, England from Saturday, March 31, 1849 reads:

Mortality in the Metropolis. – The weekly return continues to exhibit a satisfactory state of public health. The deaths, which were about 1,200 towards the end of last month, have fallen in the last week to 1,048 or 121 less than the average. The mortality from epidemics, with the exception of hooping cough, is little more than the average, and has fallen twenty-five per cent within the period of the month. The mortality caused by smallpox and measles is still unusually low; and that from scarlatina is now little more than the average. Diarrhea has declined; and the deaths from cholera are only 10, 9 of which as is shown below, occurred in one workhouse and two hospitals; three in one family. Scarlatina and typhus were each fatal to 40 persons. Which is rather less than the average for the latter disease. Inflammation of the lungs and air passages, and pulmonary consumption, do not prevail fatally at the present time: the aggregate deaths in the week from these diseases were only 260, whereas the average is 329.³

Not unlike journalists and health officials, nineteenth-century British prose writers, aiming at a truthful representation of urban life, registered in their works the devastation epidemics brought on the city dwellers. Dickens wrote within the same paradigm of nascent science that informed medical treatises, administrative documents, and newspapers. As the following extract from *Dombey and Son* shows, he also laid the blame for the "new diseases" on the poor sanitary conditions of the London slums as well as on the general poverty of the city residents:

Was Mr. Dombey's master vice, that rules him so inexorably, an unnatural characteristic? ... Alas! are there so few things in the world around us, most unnatural, and yet most natural in being so? ... Look around upon the world of odious sights – millions of immortal creatures have no other world on earth ... Breathe the polluted air, foul with every impurity that is poisonous to health and life; and have every sense, conferred upon our race, for its delight and happiness, offended, sickened and disgusted, and made a channel by which misery and death alone shall enter ... Then should we stand appalled to know,

³ Studies on the history of public health unanimously consign the surge of its ideas and practices to the time when most of Dickens's works were serialized. Part of this surge were the Sanitary movement following Edwin Chadwick's famous 1843 report on the sanitation of the working class population in Great Britain and John Snow's inceptient epidemiological research that identified polluted public water well as the source of an 1854 cholera outbreak in London. For more information, refer, for example, to Rosen's *A History of Public Health* (1993).

that where we generate disease to strike our children down and entail itself on unborn generations, there also we breed, by the same certain process, infancy that knows no innocence, youth without modesty or shame, maturity that is mature in nothing but in suffering and guilt ...
(619)

Two features distinguish the text of *Dombey and Son*, Dickens's tale of "consumption" afflicting the small heir to a family firm, from the non-fictional sources about pulmonary tuberculosis in the period. First, as a number of authors maintain, consumption serves in the novel as a metaphor for all that is wrong and unnatural about capitalist world (Andrews 89, Trotter 163). Considering that the master vice of Mr. Dombey's generation is the insatiability for wealth, *Dombey and Son* conveys a vitriolic critique of the world of trade. It delineates capitalism as a corrupter of the mind, with moral disintegration projecting itself onto the living environment and, ultimately, onto the human body. Of course, tuberculosis was the product of laissez-faire capitalism whose success was possible because the system allotted meager resources to the exploited urban population. TB's early name, *consumption*, alluded not only to the fact that the diseased are very visibly consumed by it leading to their physical dissolution, but also to its connection with consumerism – the benchmark of thriving capitalism. Second, we maintain that Dickens's artistic representations of TB are *superior* to those found in the newspapers or city authorities' records from the era in their intellectual and emotive power. Though the statistics circulated in nineteenth-century press and documents are grisly enough in the sheer numbers of deaths, they lack the appeal of Dickens's allusive and ornate language. Their neutral tone and expository mode merely sum up the fatalities from the disease. By contrast, the writer's pathos and philosophical insight go beyond the bare facts and recreate the drama of a decaying environment and degenerating human race that arouse from modern humans' hubris – capitalistic greed; a drama that evokes pity and fear among the middle class readers and impels them to help their fellow beings afflicted by consumption.

Dickens sees pulmonary tuberculosis in sentimental color even when he replaces the sociological lens with a medical one. Otherwise, his descriptions of TB cases are distinguished by scientific precision and detail. The realism with which a number of Dickens's works present the disease's symptoms was undoubtedly possible owing to the scientific advances during his lifetime regarding its causes and diagnostics. New tools to the aid of the physician like Laennec's stethoscope allowed the systematization and understanding of tuberculosis's clinical picture. But in difference to the dry scientific descriptions, Dickens's consumptive characters serve the essentially sentimental purpose of cultivating empathy in the readers, of sensitizing them about

the psychophysical torture of the sick. Again, clinical pictures outlined by physicians lack artistic imagery – the writer’s most powerful expressive means. Only the meaning-laden literature produced by masters of the plume like Charles Dickens is capable of conveying both the symptoms – prolonged cough and bronchospasm, fever and night sweats, loss of weight and energy, poor sleep and appetite – and the emotional trauma experienced by the TB victim:

I found poor Fanny in one of those paroxysms described by my father ... and could have conceived nothing more terrific. No words can express the terrible aspect of suffering and suffocation — the appalling noise in her throat — and the agonized look. ... From that, she sunk into a kind of lethargy. Sleep seems quite gone, until the time arrives for waking no more. (Caplan 147)

Found in a letter Dickens penned to his wife Catherine on 1 September 1848, this scene of a consumptive girl’s fearful agony foreshadowing the imminent lethal end is terrifying to read precisely because of its palpable genuineness. Dickens blends the lenses of realism and sentimentalism, thus capturing simultaneously the disease’s outward signs, emotional effects, and moral implications – all being aspects of illness as a physical, psychological, and social phenomenon.

Dickens’s mode of portraying London’s minimal consumers, the very poor, for whom tuberculosis has special predilection by infusing an otherwise realistic tableau with sentiment and social commentary is similarly evinced in *Sketches by Boz*, a 1836 collection of short pieces. Episodes like "The Pawnbroker’s Shop" (XXIII) are shaped out of affective engagement, ranging from passing remarks of sympathy to vehement denunciation:

This eloquent address produces anything but the effect desired; the women rail in concert; the man hits about him in all directions, and is in the act of establishing an indisputable claim to gratuitous lodgings for the night, when the entrance of his wife, a wretched, worn-out woman, apparently in the last stage of consumption, whose face bears evident marks of recent ill-usage, and whose strength seems hardly equal to the burden—light enough, God knows!—of the thin, sickly child she carries in her arms, turns his cowardly rage in a safer direction. ‘Come home, dear,’ cries the miserable creature, in an imploring tone; ‘*Do* come home, there’s a good fellow, and go to bed.’ ‘Go home yourself,’ rejoins the furious ruffian. ‘Do come home quietly,’ repeats the wife, bursting into tears. ‘Go home yourself,’ retorts the husband

again, enforcing his argument by a blow which sends the poor creature flying out of the shop. (*Sketches by Boz* 319)

In the above citation, the authorial voice is humane, commiserating with the plight of the afflicted (*a wretched worn out woman, miserable creature, poor creature*). The ravages left by the disease and the husband are expressed by subjective comments (*furious ruffian, marks of recent ill-usage, in the last stage of consumption*) amidst an otherwise naturalistically rendered city space. Such throbbing compassion is distinctively Dickensian. It is the expression of a soul sensitized to the suffering of his fellow beings, as Dickens himself spent his early years struggling against poverty in a milieu where the specter of TB would lurk behind every corner (Ackroyd 1–174).

The passages selected in the present paper by no means exhaust the depictions of pulmonary tuberculosis in Dickens. Consumption explicitly named or hinted at by way of its symptoms looms in his novelistic universe as a daily companion to city life even in cornerstone works like *Oliver Twist* and *The Old Curiosity Shop*.⁴ The current interpretation aims to reveal the complexity of these nineteenth-century literary representations of TB as well as their relevance to the medical policy, science, and practice of our day through the approach of the medical humanities and, more specifically, the burgeoning interdisciplinary field of medicine and literature. The "medical humanities" encompass the recently discerned intersections between, on the one hand, the humanities (literature, philosophy, ethics, history and religion), social science (anthropology, cultural studies, psychology, sociology), the arts (literature, theater, film, and visual arts) and, on the other hand, the health sciences. In the case with the work of Charles Dickens, the potential yields from such cross-pollination fall into two groups. Heretofore, it was illustrated how medico-historical knowledge can serve the literary scholar as a visual diagnostics apparatus for examining the body of Dickens's works. Its complex texture combines the conceptual strength of naturalistic observation, the astuteness of social criticism, and the ardor of humanism – a blend of qualities that gives it the capacity to produce tremendous impact on the thoughts and emotions of the reader. In turn, the paper's concluding sections outline the second group of yields from the contact between Dickens and natural science – the relevance and import of a nineteenth-century author's understanding about the causes, effects, and treatment of pulmonary tuberculosis for present-day healthcare and medical practice. For one thing, a greater awareness of the literary accounts of the living conditions in the European cities from Dickens's age

⁴ Critical explorers of Dickens should be aware of a peculiarity in his representations of consumption. As M. Anne Crowther warns, "Dickens is rarely specific on the causes of non-accidental death in his fiction" (Crowther qtd. in Byrne 4). However, while the author does not explicitly name the consumptive disease afflicting some of his characters and some ambiguity may exist about the diagnosis, pulmonary tuberculosis can most often be identified by its symptoms.

– which accounts, as was noted earlier, represent historical sources and sociological insights in full right – could have alerted late twentieth-century policy makers about the potential of TB as an urban hazard. The wave of modernization and urbanization in the Third World since the 1960s, as well as the increased stratification following the swerve to laissez-faire capitalist in a number of developed countries (including the United States and Japan) caused overcrowding and unsanitary conditions in poor neighborhoods, prisons, and homeless shelters. These processes uncannily evoke Dickens's understanding of the so-called *rookeries*, overcrowded residential areas where many tenants regardless of sex or age would occupy the same room, and where salesmen or transient travelers would hustle and bustle, as hubs of the air-borne tubercular infection. Considering the strong correlation between unsanitary urban conditions and TB incidence suggested in Dickens's works, the surge in TB cases worldwide in the mid-1980s should not have come at a surprise. And while this perilous trend was curbed by year 2002, pulmonary tuberculosis remains the most common cause of death from infectious disease if the deaths of HIV/AIDS patients due to TB are included (*Global Monitoring Framework*).

As explained earlier, Dickens's nearly accurate conceptualization of the relationship between tuberculosis and sordid urban conditions owes itself to the birth of public health in nineteenth-century England. However, his general faith in natural science's capacity to ward human beings against discomforts and perils wanes when it comes to pulmonary tuberculosis. In a late piece from *Sketches by Boz* (Chapter II) he grimly ponders on medicine's impotence before this "dread disease" in which death "is ever sure and certain." Though Dickens's assertions that victims of consumption never escape from its claws in *Sketches by Boz* and other works serve the purpose of generating dramatic effects, these assertions, interestingly, yield new meanings in the world of today when medicine, unexpectedly, is being challenged by multidrug-resistant TB strains. And here comes Dickens's probably most significant insight for policy makers and healthcare workers alike: how should healthcare respond to a grave and insusceptible to treatment disease? Dickens's answer springs from the sentimentalist charge of his oeuvre and can be defined in the terms and concepts of contemporary healthcare as *social support*.

In *Sketches by Boz* tuberculosis emerges as an allegory of the indifference that reigns in the modern city, as a compelling illustration that its inhabitants have lost their sensitivity, have degenerated to a level where they can no longer experience the natural emotions of love or mercy. In the sentimental tradition such disturbing tales aim to arouse the reader's sympathy, indignation, and, consequently, a desire to help the diseased. Conversely, the alacrity to come to the rescue of one's fellow beings is put forth for emulation. Examples of the latter in Dickens do exist – even particu-

larly memorable ones such as a parish's preoccupation with their ill priest told in Chapter II of *Nicholas Nickleby* (Dickens's third novel serialized from 1838 to 1839):

The curate began to cough; four fits of coughing one morning between the Litany and the Epistle, and five in the afternoon service. Here was a discovery—the curate was consumptive. How interestingly melancholy! If the young ladies were energetic before, their sympathy and solicitude now knew no bounds. ... Anonymous presents of black-currant jam, and lozenges, elastic waistcoats, bosom friends, and warm stockings, poured in upon the curate until he was as completely fitted out with winter clothing, as if he were on the verge of an expedition to the North Pole: verbal bulletins of the state of his health were circulated throughout the parish half-a-dozen times a day; and the curate was in the very zenith of his popularity. (24-25)

In our opinion, the above scene from *Nicholas Nickleby* constitutes a conceptual hub in Dickens's oeuvre, where his views on pulmonary tuberculosis converge, complicate, and radiate to shape the nineteenth-century visionary's understanding of social support as the most effective way of fighting disease. *Social support* is generally defined as the feeling that one is cared for and has the assistance of other people, and that one is part of a supportive social network. Supportive resources are usually categorized as emotional, tangible, informational, and companionship.⁵ These types of social support can be identified in the episode from *Nicholas Nickleby* relating the care of the town community for their ill priest. The concern and affection that stand at the heart of emotional support are manifested in the township's "sympathy and solicitude" that know "no bounds." Moreover, emotional support can take the form not only of abstract care and assistance but of concrete gestures telling the individual that he/ she is valued (hence, the alternative terms *esteem support* or *appraisal support*). This considered, the facts that the curé's health endures as the main topic for public discussion ("verbal bulletins of the state of his health were circulated throughout the parish half-a-dozen times a day") and that, though diseased, his ministerial service is even more popular can also be regarded as expressions of emotional support. Most patent in the episode however is the tangible support. Tangible support has been defined as "the provision of financial assistance, material goods, or services" (Taylor 190). The congregation's application to secure the material conditions necessary for the priest's recovery swells beyond any needs he may have and serves to generate the distinctive Dickensian humor that infuses bright and funny air in es-

⁵ For more information on the sources of social support, refer to Taylor (189–214).

entially dismal situations. "Anonymous presents of black-currant jam, and lozenges, elastic waistcoats, bosom friends, and warm stockings, poured in upon the curate," the passage relates, "until he was as completely fitted out with winter clothing, as if he were on the verge of an expedition to the North Pole." The the narrator's tone is highly approving despite the ironic tinge about some of the ladies' motives for this overboard generosity. Yet, this tone also gives out that along with the massive tangible support the curate is being enfolded with companionship and advice (i.e. informational support) which, as will be discussed in greater detail, are sometimes indispensable for the patient's recovery (Uchino 41).

How shall present-day medicine assess the nineteenth-century community's response to pulmonary tuberculosis described in that momentous passage from *Nicholas Nickleby*? In effect, such an assessment demonstrates the "medicine in literature" aspect of medical humanities, that is, the literary critics' use of specialized knowledge to uncover ideas encoded in literary works. This uncovering of Dickens's ideas about disease and healthcare however has its repercussions back on the plane of medical science, since these ideas – especially the view about social support's significance for the patient's recovery – represent an old formula for helping TB victims a century before the discovery of streptomycin, the first antibiotic effective against *M. Tuberculosis*. Interestingly, this formula is currently being revalidated in medical theory and practice. The focus on the patient's quality of life, Uchino asserts in *Social Support and Physical Health: Understanding the Health Consequences of Relationships*, his overview of the problematics of social support, health, and illness, has increased greatly in the past several decades. A rising number of recent studies corroborate the significance – so much emphasized in Dickens – of social support in the treatment of serious diseases like TB. As a result, there have been over 45,000 articles, chapters, and books published on social support across a wide range of disciplines related to healthcare (including psychology, medicine, sociology, nursing, public health and social work) in the past thirty years. A consensus seems to form that social support positively affects both physical and mental health. It is associated with effective immune system functioning and greater likelihood for recovery from minor and grave conditions. Besides the more obvious effects of creating material and psychological milieu that favors recovery, modern research has also identified purely biopsychological pathways through which social support boosts health.⁶ Such findings give grounds to argue that social support appears not merely as a helping tool to therapy (treatment) – commonly defined as "the attempted remediation of a

⁶ An informative overview of the models explaining the link between social support and health outcomes (the buffering hypothesis, the main effects hypothesis, the biological pathways models) can be found in Uchino, Chapters II and III.

health problem" (Porta 212) – but can become indistinguishable from therapy itself.

All in all, when professionalized, institutionalized, and commercialized medicine, confident in its capacity to fight off TB, was put on the defense by the disease's unexpected advance in the late 20th c. – its pharmacological responses feeble against the emerging drug-resistant strains of bacilli and its costly schemes unrealizable in the poor communities of Asia and Africa – physicians and healthcare planners were forced to rethink the very foundational principles behind the treatment of tuberculosis. Among the fruits of this shift were a number of highly successful projects for circumscribing TB in Third World countries. Coordinated by the World Health Organization across six countries, "Community TB Care in Africa," perhaps the most notable of these initiatives, established community-based treatment for TB patients which featured the training and supervision of family members and neighbors in activities that can be alternatively classified in public health as therapy or social support. The project has been widely praised by researchers, state officials, and WHO experts as economical, safe, and efficacious, with treatment outcomes at least equivalent to or improved compared to those achieved in health facilities and at 40-50% lower costs than facility-based care.⁷

Great works of literature and art, renowned surgeon and author Dr. Pauline Chen writes in her *New York Times* column, offer valuable records on medical practice that can provide those involved in healthcare with "insights into the human condition, suffering, personhood, our responsibility to each other" thus helping them "to develop and nurture skills of observation, analysis, empathy, and self-reflection." The present juxtaposition between Charles Dickens's representations of pulmonary tuberculosis and problems of contemporary healthcare stands as yet another illustration for Dr. Chen's words about the benefits for medical science and ethics that arise from the encounters between medicine and literature. "Community TB Care in Africa" and other projects for community-based treatment and social support exemplify medicine's rediscovery of mechanisms for caretaking of the sick that traditional communities have developed – practices evidenced in imaginative writing from the past. Like the nineteenth-century community from *Nicholas Nickleby*, today's health policy planners and medical practitioners become increasingly aware that much more can be done to fight a disease than attacking its immediate cause (bacterial pathogens, in the case with TB). Social support is increasingly considered a mighty tool for improving the quality of patient's life and stimulating human organism's resources to cope on its own with serious conditions. On the plane of medical ethics,

⁷ For an evaluation of "Community TB Care in Africa," see Akugizibwe and Ramakant's article "Challenges for Community Role in Tuberculosis Response."

Dickens's vision of disease and healthcare revalues sentimentalism as a modality in the healthcare worker – patient relationship. As contemporary medicine moves toward the so-called biopsychosocial model (BPS), the sentimental values of empathy, self-reflection, and display of affection for the diseased on the part of both their proper social circle and medical staff begin to assume a central place in contemporary healthcare schemes.⁸ In effect, the very origins of BPS, which posits that psychological and social factors and not biological processes alone play a significant role in human health, can be traced back to the intellectual tradition of sentimentalism; it resonates with the idea (later embraced by Dickens) of sentimentalists thinkers – both novelists like Radcliffe and Edgeworth and naturalists like Adam Smith – that human emotions can be harmonized and bodily health improved in a communal milieu suffused by the gentle affectations (that is, display of feelings) among its members (Barker-Benfield 100). The study of the medical humanities can therefore be beneficial for medical professionals, helping them realize that tuning in the medic – patient relationship to certain ethical principles is not a loss of time and unnecessary effort, but is integral to a professional conduct that, according to BPS, directly works for the recovery of their patients. In turn, this line of reasoning reasserts the medical humanities' capacity to discover the applications of intellectual traditions from the past to current problems of medical policy and practice, thus valorizing this interdisciplinary field's place in today's medical education.

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⁸ The biopsychosocial model, popularly known as the "mind–body connection," contrasts with the traditional, reductionist biomedical model suggesting that disease can be explained in terms of a biological cause such as a pathogen, genetic or developmental abnormality, or injury. It was theorized by psychiatrist George L. Engel, and putatively discussed in a 1977 article in *Science*. While so far no single definitive biopsychological model has been published, the concept seems to generate a paradigm shift in medicine and healthcare. For more information on the subject, refer to Santrock, Chapters 8 and 9.

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When Latin gets sick: mocking medical language in macaronic poetry

ABSTRACT

Macaronic poetry is a curious cultural phenomenon, having originated in classical antiquity and taken its standard form in the 15th century in northern Italy. Its basic feature is mixing of linguistic varieties for a humorous effect. In this paper, connections between macaronic poetry and the language of medicine have been observed at three levels. Firstly, starting with the idea of language as a living organism, in particular Latin (Renaissance language *par excellence*), its illness, from a humanist point of view, brought about by uncontrolled contamination with vernacular, serves as a stimulus for its parodying in macaronic poetry; this is carried out by systematically joining together stable, "healthy", classical material with inconsistent, "contagious" elements of the vernacular. Secondly, a macaronic satire of quackery, Bartolotti's *Macharonea medicinalis*, one of the earliest macaronic poems, is analysed. Finally, linguistic expressions of anatomical and pathological matter in macaronic poetry are presented in some detail, as in, for example, the provision of a disproportionately high degree of scatological and obscene content in macaronic texts, as well as a copious supply of lively metaphors concerning the body, and parodical references to medical language that abound. Furthermore, anatomical representations and descriptions of pathological and pseudo-pathological conditions and medical procedures are reviewed as useful as displays of cultural matrices that are mirrored in language.

Linguistic mixing, be it intentional or inadvertent, exists wherever linguistically distinct groups come into contact.¹ As a rule, linguistic varieties do not have the same social value because the groups that use them are socially different. In literary

¹ Research that was base for this article was conducted during the winter semester of 2011/12 at Katholieke Universiteit Leuven. I would like to thank *Nurus Foundation* and *Croatian Science Foundation* for financial support, and Professors Dirk Sacré, Jan Papy and Gilbert Tournoy, who were my hosts during my rewarding stay in Leuven.

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works linguistic mixing is sometimes used to depict or to criticise social practices reflected in the use of the language. One of the literary genres that takes this device to the extreme is macaronic poetry, a curious mixture of languages, consisting, in its most prototypical form, of Latin and another language, Latin providing grammatical structure, grammatical endings and vernacular yielding partial lexical segments. In addition, its contents are mostly humorous, burlesque or satirical. Various cultural relations, almost invariably involving Latin, are mirrored in this type of poetry. The tradition originated in 15th century northern Italy and reached its peak in the 16th century; by the 19th century, when Latin was not generally used any more, macaronic literature lost its dynamism and became an occasional pastime of the learned and the focus of antiquarian interest.²

Since, at the time of the rise of macaronic poetry, Latin was the language of learning, including medicine, it is expected that an analysis of the Latin in macaronic poetry and its interaction with other linguistic varieties in the same, can reveal changes in the relative social position of various groups. Of course, other literary genres also reflect their respective social contexts, but in macaronic poetry, thanks to its specific linguistic form, these appear in particular ways. As will be suggested in the article, this link between macaronic style and medicine can be observed on three levels: that of the genre itself (the metaphor of dead and sick language), that of a single work (macaronic poem dealing with medicine) and that of individual usages (various anatomical and pathological conceptualisations).

I will limit the discussion to Italian authors (with occasional references to macaronics in other languages) because they represent the most original and fruitful part of the tradition. Work of other European nations is vast and could not be covered by a single article. It presents a continuation of Italian themes, and conclusions following an analysis of non-Italian works would probably not be very different.

1. When a language gets sick

Not only professionals, but also linguistic laymen often use expressions that metaphorically represent the fact that languages in many respects resemble living beings. The conceptual metaphor underlying this usage can be expressed thusly: LANGUAGES ARE ORGANISMS. To mention only a few: *dead language*, *mori-*

² For the basic information and further literature see Sacré (2011). Quotes from ancient authors follow the standards adopted in TLL, where editions used are listed. For the abbreviations, see the *List of abbreviations* at the end of the paper. According to the usual practice in cognitive linguistics, I will use capitals for the conceptual metaphors.

bund language, living language, ancestor language, descendant language, cognate language, parent language, language family, language evolution, linguistic stock, linguistic genealogy, linguistic borrowing and so on. The view of language as an organism is as old as the investigation of language, but it was especially popular in 19th century when Darwin's evolutionary theory and interest in the origin and development of language concurred in the genealogical (pedigree) theory proposed by German linguist August Schleicher (1821–1868). This was the beginning of naturalism in linguistics, based on the thesis that languages are organisms with life cycles, from birth to maturity to old age to death.

The facet that concerns us here is that of the corruption of a language. Terms like *good usage, linguistic error, bad style, excessive borrowing, contamination* and so on, point to the fact that some people (and sometimes this attitude is institutionalised) feel that there are ways of using a language that lead to its deterioration and eventually to its decline and disappearance. Therefore, some societies construct a standard, a variety of language that is preserved in an approximately fixed state and given an official status. If a variety of language gains some dignity by virtue of the importance or quality of works written in it, it becomes what is called a classical language.³

1.1. Latin as a sick language

A good example of the use of all the biological metaphors is the case of Latin. Its extremely long and culturally rich history, with multiple upturns and declines, with classical status and an entire range of interlinguistic contacts and less esteemed forms, gave rise to a variety of views of its development.

The period that concerns us here is the transition between the Middle Ages and the Renaissance, and the site of our focus is Italy. During the Middle Ages, Latin ceased to be spoken as a mother tongue, but it remained in use in the Church, in literature and generally among the learned. However, with no unitary social force that would standardise its usage throughout the Europe, Latin split into varieties, more or less distant from the Classical Latin. Every profession had its own slang, and divergences from the classical norm did not arise only in vocabulary, but also in phonology and grammar. Moreover, new languages had stemmed from Latin; these were now the native languages of the population, and they started to take over the usage domains from Latin, one by one. In Italy, thanks to Dante, Petrarch and other writers, a new standard language, based on the Tuscan dialect, began to arise as a literary device, suppressing other dialects and seriously challenging Latin.

³ See e.g. Ammon 2004 (for standard languages) and Mioni 2004 (for classical languages).

Finally, in literary works, scholarly usage, and even preaching, linguistically mixed texts were not uncommon.⁴ Latin was seriously sick and ready to dissolve.

However, from 14th century on, the humanist movement tried to restore the dignity of Classical Latin. First Italians, and then other Europeans, gave it a breath of fresh air that would delay its fall into disuse for another four or five centuries. Works of old masters of style and ancient grammarians were persistently discovered, new manuals of classical variety were written, and strong standards of usage were established. Humanists disdained and derided simplified Medieval Latin used by university professors, students, clergy, lawyers, doctors and clerks not only in their everyday conversation, but also in their written works.

1.2. *Macaronic poetry as a portrait of a sick language*

This is the configuration in which macaronic poetry was born at the end of the 15th century. It is one of the most peculiar products of humanism: comic poetry written in a mixed language. An example will suffice to illustrate it (non-Latin parts are boldfaced):

*An poterit **passare** maris mea **gundola scoios**,
quam **recomandatam** non vester **aiuttus** habebit?* (Bal 1.7–8)

Will my gondola be able to pass the islands of the sea,
If your help will not have recommended it?

One part of the macaronic project was the parody of the pretentious misuse – as the humanists saw it – of Latin by individuals who wanted to add to their style by partial or total employment of unauthorised varieties of Latin. These individuals were considered corruptors of good Latin, who caused harm to the language itself. In some of the earliest macaronic poems, Latin was perceived as a wounded language:

*Aspicias, lector, Prisciani vulnera mille
gramaticamque novam, quam nos docuere putane,
et versus quos nos fecimus post cena cantando.* (Tif 39–41)

You shall see, reader, thousand wounds of Priscian⁵,

⁴ See e.g. Lazzerini (1971), Paccagnella (1973).

⁵ Priscian of Cesarea (c. 500) was the most famous ancient Latin grammarian and a paradigmatic grammarian for the most part of the Middle Ages and Renaissance. In another early macaronic poem, Fossa's *Virgiliana*, one of the characters (a pretentious pedant) is called *Priscianus*. A later macaronic poet even shows his comic disdain for grammarians by using an obscene corporeal metaphor: "*Bergamasco, poeta poetarum, sive poetorum, quia 'poeta' est generis masculini, contra coionicam regulam grammatistarum; in 'A' generis feminini sunt.*" (Bol C3r) "Bergamasco, poet of poets [*poetarum* – the correct form of the 1st declension, where most of the nouns are feminine], or poets [*poetorum* – form invented by analogy to 2nd declension, where majority of nouns are masculine], because 'poet' is of masculine gender, against the bollock-rule of lousy grammar teachers; nouns in '-a' are feminine."

and new grammar we were taught by bawds,
and verses that we made singing after dinner.

Furthermore,

*Hic Priscianus adest confractus membra, cerebro, et
conqueritur.* (Fos 8–9)

Priscian is here, his limbs are broken and his brain smashed, and
he weeps.

With grotesque linguistic combinations, achieved especially by inventing hybrid words but also by distorting grammar and semantics, macaronic poets allegorically display the pathological and, for humanists, unsatisfactory condition of the Latin language. By pushing the imitation of such uses over the edge of tolerance, they stress the absurdity and the possible natural outcome of the then-common irregular and loose approach to usage. In this way, the conceptual medical metaphor is directly brought to life at the basic level of establishing a literary genre and defining its poetics. This made it possible for authors to convey indirect messages and judgments by the mere choice of the linguistic form.

2. Against quackery

However, medicine is not only present in macaronic works implicitly. As always, many people claimed to have resources for treating wounds and diseases, usually in order to make money, in spite of not having been recognised by "official" medicine. Quackery was severely criticised by the contemporary intellectuals.⁶

"[Medical practice] would seem to have been an obvious subject for a macaronic poet. The charlatans who were so prominent in medicine were typical macaroni, for they invited the contempt of the learned by their pseudo-scientific orations and their false claims to have studied under famous masters at great universities." (Schupbach 1978: 149)

Indeed, macaronic tradition shows this tendency from its very beginning. *Tosontea*, probably the earliest macaronic poem, alludes to quackery: Toseto's older brother is going to learn the craft of healing with herbs:

*Compater nanque est noster: te multa docebit
atque insegnabit herbis medigare feritas.*" (Tos 25–26)

For he is our godfather: he will teach you many things
and guide you to cure wounds with herbs.

⁶ E.g. by G. Cardano (1536).

In the same poem, doctor Mengus promises Toseto a good and fast education (Tos 74).

Sometimes general medical practice is the target of the attack, especially in later macaronics:

*Libera nos, Domine, a manu medicorum,
qui curam non habent incarcerationum.* (Bol C8v)
Deliver us, Lord, from the hands of the doctors,
who do not care for the imprisoned.

A typical figure of the pretentious doctor appears in a 17th century macaronic comedy. In Stef (52, 55–61) doctor Papardellus diagnoses Gnocchus' disease: fluid from his brain has evaporated, and that is the cause of his madness. Papardellus' reference to ancient medical authorities is mockingly reinforced by Cialdo's "*autós épha*", a statement of authority; then, in a series of long monologues, Papardellus gives a cure consisting of a special and nearly impossible-to-comply-to diet, with pills mixed from exotic ingredients. Afterwards, Cialdo, an impostor, gives an alternative diagnosis: the illness is called "*maginatio*" and is a consequence of excessive liquid in brain. He cites ancient authorities, too. His "psycho-social" therapy – be nice and consent to everything the patient says, does or wants – is used as a part of his fraud. Additionally, the hypocritical greed of physicians is alluded to in Stef (61): Papardellus at first refuses to receive money for his service, but it does not take much to persuade him.

The awareness of the close relationship between the macaronic tradition and medicine has been enhanced since the discovery of the manuscript of *Macharonea medicinalis*, a macaronic poem written by Gian Giacomo Bartolotti (1491–1530) in two stages, 1494 and 1509. Bartolotti, a medical writer himself (he wrote the treatise *Dell'antica medicina*), composed this macaronic poem about an unnamed *facchino* (porter), who becomes a medical practitioner in Venice. Med is a macaronical version of the protests against quackery that colleges of physicians used to send to judicial authorities (Schupbach 1978: 154).

Bartolotti's macaronic poem begins with a very harsh invective against quacks, attacking their practices:⁷

*Perhoché più non se extima un vero et continuamente medico, ma più
presto biasmato et private et publice, et li imperiti et ignoranti somma-
mente sono comendati. Adesso e permesso e licito medicare ogni caso diffi-*

⁷ The introduction is published in Schupbach (1978: 168–169), and I reproduce his translation from pp. 150–151.

cile et mortale a frati, a done, a rustici quali sono senza noticia vera de l'arte. (Schupbach 1978: 168)

For a true, full-time physician is no longer esteemed, but rather blamed, both privately and publicly, and the untrained and the ignorant are highly praised. Nowadays permission to treat any difficult and mortal case is granted to monks, to women, and to peasants who are without any true knowledge of the art. (Schupbach 1978: 150)

Bartolotti's main character is a quack, called *fachinus*, who dresses fashionably to make an appearance of a good doctor (Med 147–153). It is, furthermore, implied that one of the signs of the medical vocation are an excessive interest in excrements (Med 36–40) and obscene physical anomalies (the fact that a person has four testicles [Med 43–45, 181] and four buttocks [Med 46]). This comes to a grotesque end in Med 92–94, where the candidate for a doctor tries to guess from the excrement what a person was doing while eating. This scatological obsession is expressed linguistically in neologism *merdicus*, a combination of *medicus* "physician" and *merda* "excrement" (Med 91, 142).

The art of medicine is parodied in Med 285–419; first its treatment is announced:

*Ne tamen apaream totum consumere librum
in fotistoriis, etsi sint omnia vera,
attamen est tempus laudes cantare medendi
et simul hoc parvo finem metire libello.* (Med 230–233)

Lest I appear to waste entire book
in fuck-stories, be they as true as they are,
it is though time to sing the praises of the art of healing
and at the same time to put an end to this small book.

But the promise is fake, because the poet goes on writing about obscenities (under the guise of medicine). The description of medicine is divided into four parts, according to the then-usual division of the field (cf. Schupbach 1978: 152–153): the subject-matter of the medicine (by presenting the *fachinus* as a herb-seller, a profession that was often accused of quackery), anatomy (a solemn dissection of a bed-bug is conducted), medical practice (the *fachinus* is described as a doctor you would not want to have any business with), and theoretical medicine. The final division (Med 403–419) presents, in a mock-account, a very perverted and for the most part obscene theory; some of the conclusions are as follows: that the soul is situated in

the testicles; that a big navel is a sign of a big penis;⁸ that Vergil must have had big testicles; that tiny worms from the sperm bite female vulvas; the momentous medical information that heads are harder on the rear part; and so on.

The poet acknowledges that his presentation is poetic and somewhat exaggerated:

Ma se, forse, cossa alchuna fusse scritta che paresse contro il debito deta, questo bisogna imponere al poetico furore qual alchuna volta passa fina ale cosse quodamodo impossibile. (Schupbach 1978: 169)

But if, perhaps, I have written anything which, it may seem, ought not to have been said, it must be put down to poetic madness, which sometimes proceeds as far as the impossible. (Schupbach 1978: 151)

Be it as it may, he claims that it is only a reflection of the reality:

Niente di meno, niuna cossa è deta qual non habia misterio in sé, et soto velamento et colore poeticho habiamo precise et veridicamente narrato la vita, progenie, costumi, doctrina et praticcha di questo tale ignorantissimo medico, non mosso da malivolentia ne livore alchuno, ma solum per exprimere la mera et pura veritade, quale sempre dhebe essere aperta et chiara et a qualunque homo manifesta. (Schupbach 1978: 169)

Nevertheless, nothing is said which does not have some concealed truth within it, and under the veil and colour of poetry I have precisely and truthfully narrated the life, progeny, customs, doctrine, and practice of this most ignorant doctor, moved not by malevolence or jealousy, but only to express the pure undiluted truth which must always be open, and clear and manifest to every man. (Schupbach 1978: 151)

Although he writes in a comic manner, he feels a strong resentment: "*Mi movo a sdegno et lamentomi fra mi stesso*" (Schupbach 1978: 169). "I am moved to indignation, and do lament within myself" (Schupbach 1978: 151).

Comical macaronic language was sometimes used for serious goals. When it came to satirising quackery, the message of the linguistic choice could be described in following terms. Just like Latin, if mixed with a vernacular, it becomes weird and grotesque because it represents the blend of the correct, authoritative and traditionally verified, with the inaccurate, unsanctioned and inconsistent; hence, mixing of the

⁸ This is certainly related to the fact that (large) nose functions as a phallic symbol in the carnevalesque literature (Paccagnella 1979: 82).

uninitiated into recognised medical tradition results in weird phenomena, hardly bearable to the human mind. Furthermore, using the basest obscene and scatological vernacular expressions – like the ones that we will meet in next section, and which Bartolotti's poem uses regularly – within the noble form of the epic hexameter and placed side-by-side with serious words and esteemed names, intensifies contrasts and increases the eccentricity of the work itself. It is a matter of the direct interplay between the form and content that makes sense only in the context of its own time and space.

3. World through body

It is not only these general levels that connect macaronic poetry with medicine. This kind of literature is very corporeal, as it deals with basic human needs for food and sex; it represents in a lively manner diseases and wounds, and its contents, therefore, give significant moment to the description of the body and its pathological conditions. Language mixing is connected to Renaissance theological and literary orientation towards the human, carnal component of Christ, thus promoting touch – contrary to medieval speculation – as a primary instrument of perceiving the world (see Scalabrini 2003: esp. 16, 105–111, 123–131). This is in accord with the overall focus on the human, as revealed by the etymology of the word *humanism* (*humanus* < *homo* "human"). Transferring the relation to the symbolic level, pure, classical Latin can be compared to the divine, mystical, unreachable part of Christ's nature, while mixing with the vernacular, irreverent and low parallels the fact that Jesus was also a man who could be touched and was also a sexual being.

Another component, as already pointed out in relation to Med, is the grotesque orientation of such literature. A high, classical framework (Latin as a dignified language; heroic dactylic hexameter as a metrical frame; ancient, biblical and mythological motives) is brought into close contact with a world of herb-sellers, quacks, students, peasants and petty criminals, with regular explicit obscenities and excessive gastronomical episodes. Since various language idioms have always been perceived as variously dignified, healthy and acceptable, their mixing sharpens the effect of this opposition (see Bernardi Perini 2001: 328).

In the following subsections we will observe the ways macaronic writers linguistically conceptualise the body. First, we will focus on anatomical details, paying special attention to metaphorical wording and to the area of scatology and obscenity. Then we will see the ways poets represent pseudopathological and pathological conditions, from physical diseases to mental disorders and from injuries to cures.

3.1. Anatomy

Macaronic descriptions of the body are often grotesque. Protagonists are frequently bizarrely ugly (e.g. Fos 34–87), and the pictures are mostly hyperbolic, thus accomplishing a humorous effect through distorting cultural schemes. Such descriptions can dignify, but also degrade their objects. Sometimes people are likened to animals, e.g., when senses of taste and smell are compared to monkeys and dogs, respectively:

*Et simias gustu, canes avanzat odore:
cum dico canes, opus est intendere bracos.* (Tif 470–471)
He outdoes monkeys with his taste and dogs with his smell:
when I say dogs, I intend hounds.

However, metaphoric expressions are more interesting, because they reflect the cultural context to which works belong. Like language in general, and especially language of literary style, the language of macaronic poetry often conceptualises abstract notions through the body. Metaphorical usage is very frequently used poetic device, which draws from everyday language, but also builds upon it. The whole body, its parts, its functions and its defects can be represented metaphorically.

Cognitive linguistics has developed theoretical tools for dealing with metaphors by generalising them to so-called conceptual metaphors. Such research has been used in medical practice, too. Santarpia et al. (2010) propose a complete metaphorical description of the body as an alternative to anatomical description; the authors claim that the research of poetical metaphors can be used in neuroscience and as a tool in the therapy of psychiatric patients. Their model, called "Literary Construction of the Body", classifies bodily metaphors into categories at superordinate (bold), and basic and subordinate (italics) levels (I survey them with examples of the usage given by the authors):

- **BODY IS A CONTAINER**
 - *BODY IS A COVERING* ("Where the limbs veil the soul")
 - *BODY IS A BUILDING* ("The body is the shelter of the soul")
- **BODY IS AN OBJECT**
 - *BODY IS A NATURAL ELEMENT* ("Whose heart burned")
 - *BODY IS AN INSTRUMENT* ("The body, used like a tool to win the individual battle")
- **BODY IS AN ORGANISM**
 - *BODY IS AN ANIMAL* ("This submissive wildcat, heart of a tiger or bear")
 - *BODY IS A PLANT* ("My limbs did not remain there | neither green nor ripe")

- **BODY-SYNAESTHESIA category** ("Here, in life's last light, your body still breathes")
- **BODY-METAMORPHOSIS category** ("See Tirésias [*sic!*], | who changed from male to female, | bit by bit")
- **BODY IS DIVINE**
 - *BODY IS SUPERNATURAL* ("Truly, like an angel in a human body")
 - *BODY IS A SACRED OBJECT* ("Your flesh is bread, your blood is wine")
- **BODY-ABSTRACT category** ("I offered you my body as a movement of happy sadness")

Analysis of metaphorical expressions containing references to body and body parts reveals the presence of some of these conceptual metaphors and the literary effects achieved through them. I will give some examples of first two groups, which are the most common.

Thus the BODY IS A CONTAINER conceptual metaphor is manifest in various subordinate-level metaphors, e.g. BRAIN IS A RECEPTACLE FOR ALCOHOL: "*Dulcibus hic opus est mustis impire cerebrum.*" (Med 665) "Now the brain should be filled up with sweet must."; "*Moscatella caput centum implevere chimaeris.*" (Bal 1.509) "Must filled up the head with hundred monsters."; Bal 2.500,⁹ and more complex examples like READING IS EATING, e.g. "*mangiare libros*" (BasS 289) "to eat books" (it also requires metaphor BODY [PART] IS A RECEPTACLE FOR INFORMATION)¹⁰ and LOVE IS EATING, e.g. the loved person is sweet ("*dulcis*") and compared to food (Beg 1773: 186).

There are examples of the metaphor BODY IS AN OBJECT, expressed in the form BODY IS A NATURAL ELEMENT, e.g. "*immas illa buellas | brusarat*" (Beg 1773: 200) "it (i.e. the thirst) burned the vitals".

Metaphor BODY IS AN ORGANISM is present for example as the basic-level metaphors BODY IS AN ANIMAL, e.g. "*lumina gatae*" (Tif 322) "(human) eyes of a cat" for a glutton¹¹, and BODY PART IS A HUMAN, which is a classical *pars pro toto* situation: the person is – sometimes grotesquely – reduced to a part of the body, which is thereby represented as the only one relevant in that particular moment: e.g. "*ingrato contristat labra sapore*" (Cap 434) "makes the lips feel grief from unpleasant

⁹ See also Ecc 166. We can mention here the conviction that wine is necessary for poetical invention (Med 671–675).

¹⁰ Fossa's character Priscian takes this metaphor literally (Fos 228–229) and really eats books in order to become smart and erudite.

¹¹ Later on, gluttony will be attributed to cats, e.g. "*gateque lecarde*" (Tif 610) "and greedy cats"). There are similes as well, e.g. "*oculos parvos ut gatte habere videntur*" (Fos 47) "they seem to have tiny eyes, like cats" (similar in Vig 27).

taste"; "*bucam habet immensam semper magnare paratam*" (Vig 28) "he has an immense mouth, always set to eat"; then, phrase "*perdere testam*" (Bal 7.10, 10.131, 10.266) "lose one's head" meaning "lose one's life"; finally, more elaborated "*naso tirare*" (Stef 32) "to pull one's nose (i.e. leg)" as an image of making fun of somebody (which requires subordinate-level metaphor OFFENCE TO A BODY PART IS OFFENCE TO A HUMAN).¹² There is also a conceptual metaphor BODY IS A HUMAN, e.g. "*chiappavit corpora sumnus*" (Beg 1773: 211) "dream grasped the body".

An interesting example is provided by the following lines:

*Buchaque [si mihi] esset grandis qualem Polyfemus habebat —
vel dicam melius, quantum foramina furni?
virtutum minimam vix possem dicere partem.* (Med 12–14)

And if I had mouth as big as Polyphemus had –

or, should I rather say, as an oven opening?

I would hardly be able to recount a tiny part of his virtues.

Size of the mouth is perceived as an indicator of the talking potential. An underlying metaphor could be expressed like this: BIGGER CAN BE USED MORE (more generally: BIGGER IS MORE). The conceptualisation does not have to refer to the body and it is not necessarily metaphoric in all cases (e.g. a longer pencil can be used longer or, given a fixed time period, more intensely than a shorter one).

Anatomical conceptualisations of abstract human functions (mind and emotions) – so-called *embodiment* – are represented differently in different cultures. Ancient European culture centred both mind and emotions for the major part in the heart. Present-day dualism between head/brain as the locus of mind, and heart as the centre of emotions, always existed to some extent, but it did not fully take hold until the 17th century, when the empiricism and Cartesian philosophical turn claimed to establish it on scientific grounds (see Sharifian et al. 2008: 3–7). In macaronic poetry, which tries to achieve liveliness in the narration, we find a vast array of such conceptualisations, more commonly than in technical or even ordinary speech.

In typical macaronic poetry, the locus of mind is placed in both heart and head. Heart as the seat of the reason is not infrequent in the earliest works of the tradition, e.g. "*arcana sui dum corde volutant*" (Fos 122) "while they were giving much thought to secrets"; "*lambicat ingenio, distillat corde, misurat*" (Bal 6.379) "licks with mind, sifts with heart, measures"; "*itique novas semper meditans in corde magagnas*"

¹² Another kind of example is perceiving brain as being harmed by an unpleasant sound, e.g. "*sentin ut rumpunt cerebros cridore?*" (Zan 130) "do you hear how they crack the brains with their noise?" (similarly Zan 687, Mos 456).

(Bal 10.10) "goes and always thinks about new tricks in his heart"; "*lumina cordis*" (Bal 18.282) "the eyes of the heart" (further examples: Med 476; Bal 12.155, 17.689, 25.412 – parallelly with the brain; Zan 580).

Nevertheless, intellectual processes are predominantly located in the head/brain, e.g. "*incipiens pulchram cum magna facere testa | disputationem*" (Fos 216–217) "starting to create a nice essay with his big head";¹³ "*voltare cerebrum*" (Med 727) "roll one's brain" as an image of a hard question which torments a person; *grattare caput/testam* "scratching one's head" as a symptom of thinking, e.g. "*Gratta caput, revocat capitis grattatio mentem.*" (Zan 887) "Scratch your head: scratching your head brings back your thought." (very similar in Ecc 87; the expression appears also in Fos 397, Zan 54 and Bal 1.257, 2.336, 4.192, 5.71, 6.79, 7.274, 8.155, 15.65, 16.227, 21.370, 22.173, 24.732; it is uncommonly frequent in *Baldus*, where it gives an image of thinking, undecidedness and confusion, but also of reaction to itches caused by dirt and head lice). There are many places with similar conceptualisations (e.g. Med 170, 311, 601, 727; Bal 2.107, 2.350, 4.242, 6.378, 6.449, 7.142, 9.276, 10.3, 14.362, 15.155, 15.367, 17.177, 22.585, 25.481; Zan 54, 753, 879, 1157; Mos 154).

Various traits of personality are generally conceptualised in early macaronics as being in the heart; thus virtue, e.g. "*cor magnanimum*" (Bal 21.224) "brave heart" (further examples: Bal 1.258, 3.137, 3.480, 6.495, 10.132, 17.515, 19.92, 19.266, 21.11, 24.306; Mos 3.25); politeness, e.g. "*Est gentilis amor, vult cor gentile, galantum.*" (Zan 758) "It is a gentle love that requires a gentle heart." (similarly Bal 14.126); kindness/sympathy, e.g. "*sed Baldus natu gentilis, corde benignus*" (Bal 3.574) "but Baldus, noble by birth, kind in heart" (see also Bal 10.354); obstinacy, e.g. "*cor Leonardus habet diamante probatius omni*" (Bal 17.91) "Leonardus has heart harder than diamond" (also Bal 17.255); arrogance, e.g. "*Stat male nobilium sub corde superbia semper.*" (Bal 12.243) "Arrogance is always under the heart of the ill-innoble."; malice, e.g. "*corde cativo*" (Bal 23.77) "with wicked heart".

Rarely, the head is presented as the seat of virtue, e.g. "*omnes virtutes habet in testa ficatas*" (Fos 193) "he has all virtues stuffed into his head".¹⁴

As one would expect, emotions are placed in the heart; thus grief, e.g. "*cor perditte, plange*" (Bal 17.694) "wretched heart, cry" (see also Bal 2.27, 5.432, 7.377, 17.576, 17.700, 24.585); perplexity, e.g. "*obstuperaudum Guidonis corda*" (Bal 2.333) "Guido's heart has been perplexed for a long time"); anger, e.g. anger is under the

¹³ Recall the metaphor BIGGER CAN BE USED MORE, mentioned previously.

¹⁴ Note that Bartolotti, a medical writer, in Med 405 implies that common opinion has it that soul is placed in the brain: "*Vult animam coleis, cerebro non, esse ficatam.*" "[The quack] claims that soul is stuffed in bollocks, not in the brain."

chest: "*gerens ravidam sub pectore bilem*" (Beg 1773: 212) "carrying an insane wrath under the chest" (see Bal 6.36);¹⁵ worry and calmness, e.g. "*Sed precor, in pacem cor vestrum ponite, mater.*" (Bal 3.406) "Please, mother, put your heart in peace." (also Med 530; Bal 7.626; Zan 850); fear ("*horribili corda pavore tremunt*" (Mos 2.464) "they tremble with a horrible fear in their hearts" (further examples: Mos 3.320; Bal 10.130, 24.486; Stra 100); impatience, e.g. "*Cor brillat sociis spadas rancare guainis.*" (Bal 24.185) "The heart bounces to draw swords for the sheaths."); joy, e.g. "*Vult contra sortem cor semper habere zoiosum.*" (Bal 2.23) "Always wants to have a happy heart against the fate." (also Bal 12.58, 20.432, 22.576; Zan 443).

Predictably, the seat of love is also conceptualised as being in the heart. Numerous metaphors are based on this embodiment: the god of love pierces a lover's heart (Zan 55), giving the heart is giving love (Bal 20.717),¹⁶ a loved person's face is pressed into the lover's heart (Beg 1779: 311), a loved person is in the lover's heart (Bal 4.296), a loved person is the lover's heart (Bal 10.357; Beg 1779: 319), the lover gives his heart to a loved person (Beg 1773: 184), a loved person steals the lover's heart (Fos 130), the lover's heart is the loved person's heart (Beg 1773: 184), the lover is his heart (Bal 7.55), personified love conquers the heart and triumphs in it (Beg 1773: 185),¹⁷ the lover's heart (and his eyes) has desire for the loved person (Beg 1773: 186), the heart gives rise to love (Bal 19.204), love presses on the heart (Beg 1773: 186), love is attached to the heart (Beg 1773: 186), a loved person drives a sword into the lover's heart (Beg 1773: 189).¹⁸

Considering the importance of grotesque and bizarre elements in macaronic poetry, it is no wonder that scatological and obscene concepts play a significant role. Many descriptions of characters abound with scatological details (e.g. the description of Vigonza in Vig 17–66).

At the basic level, we find an abundance of scatological vocabulary (see e.g. a list in Paccagnella 1984: 90). Non-metaphorical scatological details are not infrequent, e.g. a bizarre juxtaposition with a verb of eating, e.g. "*hanc nunquam lassat spadam magnando cacando*" (Tif 613) "he never leaves this sword – not when eating, not when shitting", or an illustration of dogs showing joy by urinating (Fos 141), with emphasis laid upon the physiological connection between an emotion and excretion.

¹⁵ An example of an emotion placed in the brain: "*Pone, inquit, 'si vis, cerebrum paulisper acasam.*" (Bal 10.436) "He says: 'Leave your brain (= hot head) at home for a moment'."

¹⁶ Folengo uses "*corada*" "entrails" in Bal 7.164.

¹⁷ Folengo has "*coradella*" "entrails" in Zan 58.

¹⁸ Intense love can be perceived as a wound ("*sberleffo*", Beg 1779: 311, 319); it can also kill a person (Beg 1773: 185). There is also classical phrase *cordi habere* "to like", "to want" (Tif 387, 390, 588; Med 966; Bal 23.123).

There are also many metaphorically based scatological details. Let us review some of them. There are expressions based on the conceptual metaphor WORLD IS A BODY, e.g. Ragusa is "*situata in Culibus orbis*" (Fer 5) "placed in the posteriors of the world"); then, COMMUNICATING NONSENSE IS DEFECATION,¹⁹ e.g. the poet says on the beginning of the poem: "*Ecce iterum, sotii, venit mihi voia cacando.*" (Med 425–426) "Behold, comrades, I feel like shitting again.", (similarly in Tif 570–572); furthermore, the verb *coionare* is employed in the meaning "to bullshit" (about philosophers), e.g. "*Qui non credit, legat pedantes | de hac re docte coionantes.*" (Bol D5v) "Who does not believe, let him read the pedants, who bullshit about this academically." (similarly, Cap 251); in addition, COMMUNICATING NONSENSE IS URINATION, e.g. vulva of a Muse pouring out verses: "*effondasque solitos versus de potta rogamus*" (Fos 189) "we also ask you to pour out regular verses from your cunt"; finally, DISRESPECTING SOMETHING IS DEFECATING ON IT, e.g. "*Regibus incago, papis rubeisque capellis*" (Bal 2.279) "I shit on kings, popes and red hats" (see also Bal 11.484, 16.281; Bel 34; Bol D8v; Ors 33).²⁰

Fixation on the body and its basic functions is also reflected in the frequency and variety of obscene details, which is characteristic of macaronic poetry in general (cf. Paccagnella 1979: 81). The simplest form of this is the employment of sexual taboo vocabulary.²¹

Sometimes euphemisms are humorously employed: we have the mock-censure *cacephaton* "shameful to say" in Med (35, 125, 325, 656, 774),²² or an eponym *priapus* (Med, 13 times).

As in language in general, macaronic obscenities frequently have a metaphorical source, but they are here used more regularly and with more imagination and humorous intention. For a complete picture to emerge, a more detailed and systematic analysis would be necessary, and comparisons between the macaronics, Classical Latin and contemporary works in pure Latin or vernacular could reveal a great deal about relationships between culture and language.

¹⁹ Known already in antiquity, e.g. "*cacata carta*" in Catullus 36.1 (see TLL 3.8.858–859).

²⁰ Additionally: DISRESPECTING SOMETHING IS SHOWING RUMP TO IT, e.g. "*Incagant iuri monstrantque culamina legi.*" (Bal 3.540) "They shit on justice and show their buttocks to the law." (taken over and modified in Bel 73).

²¹ A catalogue of sexual vocabulary in early Paduan macaronics is given in Paccagnella (1979: 90). The phenomenon is not confined to Italians: e.g. Pacheco's macaronic poem contains many words from the germanesque argot of prostitution and picaresque literature (Domínguez Leal 2007: 107).

²² It is mocking because sometimes the poet impolitely says *coionis* "buttocks" in the same verse (37, 125). One can notice a pun on *cazzo* "a cock" and that *cacephaton*, regularly a neuter, is here employed in masculine gender, which is more appropriate for penis.

Nevertheless, we can observe here a few conceptual metaphors to illustrate their use. For example, there is the well-known metaphor SEX IS EATING, which comprises, on a lower level, the metaphor SEXUAL URGE IS HUNGER,²³ e.g. "*saciam ... futendi*" (Tif 22) "fed with fucking" (gastronomical verb *saciare* is in a connection with sexual *futendi*; see also Tif 158), or (FEMALE) GENITALS ARE CONTAINERS, which can have the following metaphors at the subordinate level: VULVA/ANUS IS A CAVE²⁴ (e.g. Tif 529–537, repeated by Med 134–135 and hyperbolically stressing the possibility of ships to navigate in it)²⁵ and VULVA/ANUS IS A SHOP (with the connotation of frequent and free entrance by various people), e.g. "*si nuper in vestram me vis intrare botegam*" (Med 205) "if you want me to enter your shop now" (see also Med 938), or SOMETHING DAMAGED IS A PASSIVE SEXUAL PARTNER, e.g. "*hoc, sotii, vos recordare potestis | si non est cerebrum vobis hac volta fututum*" (Med 437–438) "comrades, you can remember this if your brains are not fucked up this time."

3.2. Pathology

Apart from representations of the body in general, the area of pathology is frequently employed in humorous literature. Various conceptualisations of body and its relation to the environment and to psychical conditions come to prominence in describing diseases, wounds, cures and death. These are often grotesque and frequently reflect popular (mis)conceptions about the functioning of the body.

Firstly, there is a rich supply of what could be termed quasi-pathological bodily effects, i.e. states that are not necessarily pathological in a strict sense, but are represented as being direct physical consequences of an emotion or a state of mind. Sometimes they are clearly metaphorical (e.g. pulling the heart out from the heel), sometimes they are literal and approach authentic processes (e.g. to die of hunger), the zone between them being one of a gradual transition rather than a sharp boundary. These are hyperbolic for the most part, and they reflect cultural matrixes. Usually the effects involve scatological discharge of waste matter from the body by urination, defecation and sweating (and are therefore scatological), or death, caused by intense emotions.

²³ It is common in carnival literature, as noticed by Paccagnella (1979: 81–83).

²⁴ Pubic hair is metaphorically represented as a wood around the cave, which could also correspond to the metaphor GENITALS ARE LANDSCAPE OBJECTS.

²⁵ TLL does not give this meaning under *antrum* (there is only "mouth"); however, Ausonius (*Epigrammata* 106.8) uses the metaphor ("*luteae Symplegadis antrum*" "cave of the muddy Symplegades"), with conjoined metaphorical use of Symplegades reaching back to Martial (*Epigrammata* 11.99.5: "*sic constringuntur gemina Symplegade culi*" "thus, in double Symplegades, buttocks are bound together"). There are also examples of a more general *caverna*, but only in technical texts (Scribonius Largus, *Compositiones* 95; Plinius Maior, *Naturalis historia* 28.106, 30.138; *Mulomedicina Chironis* 229; see TLL 3.646.41–45).

As the connection between emotions and excessive physiological effects are not a common phenomenon, and such metaphorical use is avoided in professional medical literature and to some degree in non-humorous literary works, it is expected that the frequency of such expressions in macaronic literature would be relatively high. Here are some examples: to freeze the face of anger (Beg 1779: 311, 319); to sweat from wonder (Med 920); to urinate from laughter (BasG 2), to defecate from laughter (Tif 12; Med 42), from wonder (Med 703–704), from fear (Med 526, 884; Bal 10.130, 12.516, 24.486; Stra 38), from hearing the name of Rome (Cap 232), from reading bad poems (Bol A1v); to have stomach problems from excitement (Beg 1773: 185); to look like you have eaten lizards (Stef 22); to feel sick from an encounter (Zanc 157); to loose appetite from love (Zan 790); to suffer from insomnia as a consequence of love (Beg 1773: 186); to have the heart pulled out from the heel (Bol A4v); to be paralysed by fear (Med 1022); to have the head/brain broken by annoyance (Stef 23, 64); to burn with love (Fos 438; Beg 1773: 189); to die of laughter (Bal 12.194, 15.84, 15.99; Bol title page, A3r), of fear (Tif 668; Fos 450), of wonder (Med 300, Med 624), of joy (Vig 125; Med 41), of affection (Med 1016), of love (Agl 95),²⁶ of emotional pain (Beg 1773: 187), of anger (Bal 17.539), of hunger (Tif 228, 366; Vig 261; Med 61; BasS 33; Bal 4.201, 14.234), of thirst (Vig 261), of cold (Vig 262; Med 449), of overeating (Bal 6.450), of heat (Vig 262; Med 253), of lice (Vig 260), of diarrhoea (Vig 263), of itches (Vig 274), of toil (Stef 22)²⁷; to rise from the dead by the sight of certain persons (Bol B7r), by good wine (Stef 28).

As already suggested, there is not always a clear boundary between quasi-pathological states and pathological conditions proper. Physical diseases appear frequently as part of curses and oaths cast by an author or by a character. Thus the poet's curse cast on Vigonza (*Deprecatio poete in Vigonzam*, Vig 256–276) is full of undesired medical conditions. In Capello's *Deprecatio* a venereal disease is called upon the detractor's tongue, because he "bites" his poems (Cap 102).²⁸ These are used as insults, e.g. "*Sunt cacasangui semper transversa loquentes.*" (Fos 99) "They are blood-shitters, they always speak fallaciously."; "*contra cacasanguis*" (Agl 10) "against blood-shitters", they can be compared to the consequences of emotional states, e.g. "*Per urbem te video andare melanolicum, | quasi in panza haberes dolorem colicum.*" (Bol D3r) "I see you walking in the city depressed, as if you have pain of colics in your stomach.", or be related to their causes, be they physiologically

²⁶ Lover is sometimes represented as a sick person (e.g. Beg 1773: 184).

²⁷ Toil as dying: Stef 23.

²⁸ Further examples: "*Veniat tibi fistula!*" (Stef 44) "May fistula come to you!"; "*Tibi cagasanguine vegnat, | fistola, giandussam, lebram cum fulmine, cancrum!*" (Fos 416–417) "May you shit blood and get fistula, boils, leprosy with calamity, and cancer!".

founded, e.g. "*Noli tamen nimium potare | si vis tibi Martinum stare.*" (Bol D5v) "However, do not drink too much, if you want your Martin (i.e. penis) to stand straight", or not, e.g. (about people who stand stiff) "*pertigas si tamquam comedissent*" (Agl 113) "as if they have swallowed a bar" (Croatian has an equivalent phrase, with "broom": "kao da su progutali metlu"; cf. English "as stiff as a ram-rod").

In grotesque literature, references to various kinds of mental disorders are employed in enhancing poetical effects. Some such phenomena are at the border between mental disorders and moral features, for example, gluttony, e.g. "*semper magnare paratus*" (Tif 574) "always set to eat" (pathological glutton Paulus is depicted in detail in Tif 370–471; another one, Stranius, in Tif 573–591; then there is Vigonza in Vig 28–33), and lying (in Tif 169–170 and 177–185 we encounter a detailed description of a pathological liar). Other borderline cases bear a social stigma. A moderate form is stupidity, e.g. Angelus of *Virgiliana* is stupid: "*vacuum cerebro portans caput*" (Fos 184) "carrying head void of the brain"; "*mente carentem | naturaque levem*" (Fos 101–102) "lacking mind and simple by nature"; Vigonza: "*mazucum*" (Vig 180) "stupid"; Bartolotti's fachinus, too: "*coionus*" (Med 16) "bollock" (an anatomical metaphor), as well as readers: "*turba coionorum*" (Med 565) "a bunch of bollocks"; the poet himself is sometimes declared as stupid (Bol C3v, C5r).²⁹ The more severe condition, and more strictly pathological, is madness: e.g. Vigonza is crazy: "*matus*" (Vig 119, 150); then, Capello's Cabrinus: "*mattus*" and "*furiis motus*" (Cap 96, 99) "crazy" and "driven by furies", and Forlinus, too: "*mattus*" (Cap 101). It sometimes happens that madness is the main subject of a poem.³⁰

Some diseases/characteristics are obscene, e.g. we meet nymphomaniacs (Tif 22, 158, 557–570; Vig 1–4, 47–48), as well as satyromaniacs (Med 78–81). It is interesting that psychological sexual disorders and abuse are not always represented as being socially unacceptable, e.g. fachinus of *Macharonea medicinalis* lost his job not because he participated in sex excessively, but because he injured a monk by not having used saliva as a lubricant during anal intercourse (Med 118–119).

Injuries, on the other hand, can be used as a literary device for conveying a cultural message. Thus Berta's five wounds (*Baldus*, redaction T c. 95r, as cited in Scalabrini 2003: 120) correspond to the five wounds of Jesus, which is a very strong biblical reference representing a form of religious parody. Furthermore,

²⁹ We also meet a parody of the preconception that all old people are wise and right in their heads (Stef 31).

³⁰ Beguoso 1779: 311, *De quodam amico*: "*amicus perdidit | iudicium multam et acquistavit amentiam*" "a friend lost his reasoning and acquired a lot of madness" (note that mental sanity and insanity are conceptualised as objects which are in possession of a person and can be lost and acquired).

Muses, as a part of the inherited (and parodied) classical poetic and divine beings, can be grotesquely anthropomorphised by inducing a scene of physical injuries ("*Nec mea Musa potest tantos calzare stivalos: | si calzet, collum rumperet illa suum.*" [Stef 19] "Nor could my Muse wear so large boots: if she would wear them, she would break her neck."). Thus the poet achieves not only a humorous reference, but also a resolute distance.

Injuries are employed to enhance the effect of omnipresent obscenities. Thus one can die of intercourse with a too-well-endowed man, e.g. "*Tota putanarum spasmo caravana moribat.*" (Med 887) "A whole band of whores died of spasm." (also Med 937–939). There is also a metaphor of sex as the wounding of a woman with a spear; curiously, she can be cured only by repeated sex (Cap 95–96).³¹ Moreover, a sexual handicap can be socially stigmatised, e.g. "*ut iuvenis qui est castratus | a puelis omnibus est odiatus*" (Bol C7r) "like a young man that is castrated is hated by all girls".

Seeing that macaronic poetry does not lack scatological interests, it is not surprising that injuries often affect posteriors (e.g. "*Unus illorum sibi rupit forte culatam | in medio cascando viam.*" (Stra 47–48) "One of them injured his arse by accident having fallen in the middle of a road." There is also a grotesque image of bowels laid open by wounding in battle and throwing out excrement (Beg 1773: 212).

Various forms of cures appear in several contexts. These can be presented within proverbs, e.g. "*Vulneris occulti nunquam medicina trovatur.*" (Stef 24) "The cure for the hidden wound can never be found." Braybrook (1999: 187) finds in the title of Belleau's *Dictamen* a punning reference to *dictamnium* (Fr. *dictame*), a medicinal herb used by Venus in *Aeneid* (12.411 et sqq., see TLL 5.1.998.17–19), which can serve as a pointer to the symbolic role of the poem as poetical balm. Sometimes cures bear literary references, e.g. a weapon that wounds and heals (Bal 9.182) recalls, via Dante, Pliny the Elder and Ovid, Achilles' spur that restores Telephus (Scalabrini 2003: 115).

However, the most suggestive forms of cures appearing in macaronic poems are in the service of bizarre and obscene body modifications. We have examples of aesthetic surgery *ante litteram*, e.g. "*et parvas tetas facit venire tetazas | et parvas potas facit venire potazas*" (Tif 226–227) "and he makes small tits become boobs, and he makes small pussies become big beavers"; furthermore, dr. Caciocavallo uses (successfully) various methods to extend his penis (Med 859–864); finally, there is the drinking of mother's milk as a way to achieve sexual potential (Med 66–68).

³¹ Bolla takes up the motive (Bol D4r).

We will conclude this survey with a curious example of a kind of voodoo doll practice (which is not strictly a cure, but is still in medical scope):

*Est negromantes: factis cum cera figuris
et cum gusellis in panza, in corde ficatis
martellum facit cunctis venire putanis.* (Tif 216–218)

He is a sorcerer: he makes wax figures
and sticks needles in their bellies and in their hearts,
making jealousy come to them.

Conclusions

Every literary practice, to a greater or a lesser degree, reflects its own social context. Macaronic poetry is no exception. Since it was based on Latin, and since it developed in the period when Latin was in crisis as "the language" of learning, and medicine in particular, it does not come as a surprise that manifold relationships between macaronic poetry and medicine come about. I hope to have shown that these relationships can be observed on at least three levels:

- macaronic poetry as an allegorical representation of language illness,
- criticism of quackery (and medicine) in poems, and
- grotesque portrayals of the body and of the pathological conditions.

Mixing of socially clearly distinguished and variously valued linguistic material, with the addition of grotesque contents, was one of the responses to the manifold crises that struck Renaissance Europe: social (rise of bourgeoisie and of the new, capitalist economic system competing with medieval feudalism), religious (birth of the Reformation and Protestantism), scientific (turn from scholastic speculation to empiricism), political (Machiavellian ideas about a new type of ruler; discovery and increased contact with the New World) and finally linguistic (humanist Latin; increasing use of other languages in science and literature; standardisation of national languages). Renaissance Europe was frequently perceived by contemporaries as going through a period of dissolution of old social structures and emergence of new ones, often by means of painful metamorphoses. A contrast between problematic polarities in all these areas found its expression in linguistic fusion of incompatible elements, taken from thoroughly opposed linguistic stocks. A society that was – together with language that had given its activities a common base for more than a millennium – seriously endangered and ready to collapse or to be transformed into something different, was conveniently represented through this peculiar, "sick" linguistic form.

At a more concrete level, medicine itself was also undergoing changes during the Renaissance. Rationalist and empirical methods, strictly founded on accurate observations, gradually replaced theological and philosophical abstract speculation. Literary works, including some macaronic poems, reflect the struggle between the "official" medicine and folk practices that had gained ground during the Middle Ages on the ruins of ancient medical knowledge. Here again unusual linguistic choices helped the authors enhance the satirical effect and convey a stronger message. Furthermore, physicians used to be targets of literary attacks, just like other professions. Although this was not specific to medicine, a few examples of this are also given.

Linguistic medical usage in macaronic poetry deserves special attention. Poets commonly take expressions used in medicine and alter – or, more precisely, distort – them at the level of expression (official Latin terminology is contaminated with nonprofessional dialectal vocabulary) and at the level of contents (body parts are often oversized and unnatural, physiological functions strange and oddly combined, and medical procedures perverted and amusing). Presence of and emphasis on metaphors that connect the body with the world points to the Renaissance obsession with the body; one that questions itself and creates a critical distance by parodising, satyrising and exaggerating everything. Conceptualisations of the body through metaphors are a regular ingredient of everyday language, even when we deal with the technical language of medicine. In literary works, especially when they tend toward the grotesque, these metaphors are intensified and brought under a particularly strong light. The advancement of medicine and its clash with folk healing practices gave rise not only to professional treatises, but also to literary experiments, among which macaronic poetry presents some of the most extraordinary and direct examples. Macaronic poetry brings technical details down to colloquial slang, drives them to absurdity and sharply contrasts the repulsiveness of their appearance, their "ugly" reality, with the polite technical language of doctors and "normal" poets, thus questioning the hypocrisy inherent in our social norms.

List of abbreviations³²

Agl: Giovan Giorgio Aglione, *Macharonea contra macharoneam Bassani* (in: Delepierre 1852: 244–250)

Bal: Teofilo Folengo, *Baldus* (in: [Folengo] 1911a: 47–349, 1911b: 3–139)

BasG: Bassano [Mantovano], *Ad magnificus dominus Gasparus Vescontus ...* (in: Folengo 1977: 998–999)

³² Last numbers of entries indicate verses; in entries marked by asterisk last numbers indicate pages.

- BasS: Bassano [Mantovano], *Contra Savoynos* (in: Folengo 1977: 999–1001)
- Beg 1773: [Bassani] 1773 *
- Beg 1779: [Bassani] 1779 *
- Bel: Remy Belleau, *Dictamen metrificum de bello huguenotico et reistrorum piglamine, ad sodales* (in: Belleau 1867: 123–131)
- Bol: Bolla 1604 *
- Cap: Guarino Capello, *Macharonea in Cabrinum Gagamagogae regem* (in: Delepierre 1862: 91–102) *
- Ecc: Teofilo Folengo, *Eccloga sexta* (in: [Folengo] 1911b: 287–292)
- Fer: Giorgio Ferrich, *Carnovalis Ragusini decriptio macaronica* (MS in the Archive of the Franciscan Library in Dubrovnik, n. 180: 122–128)
- Fos: Evangelista Fossa, *Virgiliana* (in: Folengo 1977: 983–997)
- Med: Gian Giacomo Bartolotti, *Macharonea medicinalis* (in: Schupbach 1978: 169–191)
- Mos: Teofilo Folengo, *Moscheis* (in: [Folengo] 1911b: 141–181)
- Ors: Cesare Orsini, *Capriccia macaronica* (in: [Orsini] 1653) *
- Stef: Bernardino Stefonio, *Maccaronis forza* (in: [Stefonio] 1869: 17–74) *
- Stra: *Strages innocentium* (in: Livingston 1916: 186–191)
- Tif: Tifi Odasi, *Macharonea* (in: Paccagnella 1979: 114–133)
- TLL: *Thesaurus linguae Latinae*
- Tos: Corado [Padovano], *Tosontea* (in: Paccagnella 1979: 109–113)
- Vig: *Nobile Vigonce opus* (in: Paccagnella 1979: 134–142)
- Zanc: Partenio Zancaio, *Cittadinus macaronicus metrificatus...* (in: Delepierre 1862: 155–179) *
- Zan: Teofilo Folengo, *Zanitonella* (in: [Folengo] 1911b: 1–44)

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Šime Demo

Kad se latinski razboli: parodiranje medicinskog jezika u makaronskoj poeziji

SAŽETAK

Makaronski je stil osobit kulturni fenomen, čiji tragovi sežu u antiku, a standardnu je formu dobio u sjevernoj Italiji u 15. st. Osnovna je njegova karakteristika miješanje jezičnih varijeteta radi postizanja komičnoga efekta. U ovom su članku veze između makaronskoga pjesništva i jezika medicine promotrene na tri razine. Prvo, polazeći od sveprisutne ideje o jeziku, osobito latinskome (renesansnome jeziku *par excellence*), kao živom organizmu, njegova – iz humanističkoga očista – bolest, nastala nekontroliranom kontaminacijom narodnim jezicima, promatrana je kao poticaj za njegovo parodiranje u makaronskom pjesništvu, provedeno sustavnim povezivanjem stabilnog, "zdravog" klasičnog materijala s nekonzistentnim, "zaznim" elementima narodnoga jezika. Drugo, analizirana je makaronska satira nadriliječništva, Bartolottijeva *Macharonea medicinalis*, jedna od najranijih makaronskih pjesama. Konačno, detaljno su izneseni načini jezičnoga izražavanja anatomske i patološke pojedinosti u makaronskom pjesništvu. S obzirom na neproporcionalno visoku prisutnost skatološkog i opscenog sadržaja u makaronskim tekstovima, kao i veliku količinu živih metafora vezanih za tijelo, brojne su parodijske referencije na medicinski jezik. Nadalje, anatomske reprezentacije i opisi patoloških i pseudopatoloških stanja, kao i medicinskih postupaka, pokazuju se zanimljivima i zato što se iz njih mogu iščitati kulturne matrice koje se u jeziku zrcale.

Božena Džuganová*

English medical terminology – different ways of forming medical terms

ABSTRACT

In medical terminology, two completely different phenomena can be seen: 1. precisely worked-out and internationally standardised anatomical nomenclature and 2. quickly developing non-standardised terminologies of individual clinical branches. While in the past new medical terms were mostly formed morphologically by means of derivation and composition from Latin and Greek word-forming components, nowadays it is the syntactic method which prevails – the forming of terminological compounds that subsequently turn into abbreviations. Besides the most frequent ways of term formation, there are also some marginal ways, the results of which are acronyms, backronyms, eponyms, toponyms, mythonyms etc. To understand the meaning of these rather rare medical terms requires us to become familiar with their etymology and motivation. In our paper we will take a look at individual ways of word-formation with focus on marginal procedures.

Keywords: English medical terminology, derivation, composition, compound terms, abbreviations, acronyms, backronyms, eponyms, toponyms, mythonyms

In the last century clinical medicine developed into many new branches. Internal medicine for example started to specialise in cardiology, endocrinology, gastroenterology, haematology, infectology, nephrology, oncology, pulmonology, rheumatology etc. All this could happen thanks to the great development of science and technology. New diagnostic devices and methods were invented, e.g. computer tomography, sonograph, mammograph, laparoscope, endoscope, colonoscope, magnetic reso-

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nance image (MRI), etc. New diseases appeared such as AIDS, BSE (Bovine spongiform encephalopathy or so-called mad cow disease), avian flu (virus H5N1), swine flu (virus H1N1), etc. All these new things and phenomena had to be named, documented and propagated among scientists as well as common people. New words – medical terms – had to be formed. How were these new terms formed? Which ways of term-formation prevail nowadays?

Formation of new terms in each field medicine deserves an appropriate attention because the terms become successively a part of general language. Between general (codified) language and the language of science, there is a very close relationship. The language of science forms about three quarters of all written and printed materials of the general language in each nation. While general language serves all of its users, the language of science requires a certain level of scientific education because the terms as names of certain concepts only indicate their meaning. Only experts know their exact meaning.¹

Most anatomical and clinical terms used in medicine today, are Latin or Latinized Greek words, the origin of which can be traced back to the 5th century BC.² If medical terminology has to function effectively and be understandable to its users, the terms have to be formed, derived, and pronounced properly. Seminars on Latin and English or German medical terminology are an obligatory part of teaching programs in the first academic year at Slovak medical faculties. Basic information on word-formation and word-analysis enables the students to manage medical terminology in a more effective way. Instead of memorizing lists of terms they can easily predict the meaning of other terms.

Situation in medical terminology

In medical terminology there can be observed two completely different phenomena: a very precisely worked-out, internationally standardized anatomical terminology and a quickly developing clinical terminology of all medical branches, characterised by a certain terminological chaos. The main cause of this phenomenon is quick development of scientific knowledge and a need to name promptly new devices, diseases, symptoms etc. All attempts to unify clinical medical terminology on international level have mostly been unsuccessful till now. The first attempt to create a unified international classification of diseases was done already in the 19th centu-

¹ Pořtolkov, B. et al. (1983): O esk terminolgi. Academia. Praha, p. 11.

² Bujalkov, M. (2011): Lekrska terminolgia v suasnosm a historickom kontexte. Univerzita Komenskho. Bratislava, p. 14.

ry. This classification had no united rules and similarly as today's International Classification of Diseases (ICD)³ it is only a technical tool used for statistic aims. Lack of unified medical terminology is seen especially nowadays when the computers have entered into medicine and when faultless international communication is required.⁴

From the linguistic viewpoint, the research of clinical terminology is much more interesting thanks to its variability and colourfulness. Many of our examples are intentionally taken from haematology, because it is a relatively young branch of medicine without standardised terminology. No specialized heamatological dictionaries are available either in English or in Slovak. This terminology is in a process of its development and many interesting phenomena can be observed there.

Structure of medical terms

Medical terms can be basically divided into one-word and multiple word terms. One-word terms can be simple (underived) words, derived words, compounds, or combination of derived and compound words. Drozd – Seibicke⁵ consider derivation and compounding for the basic word-forming ways.

I. Main types of word-formation

Generally vocabulary spreads in three possible ways: 1. *forming new names*, 2. *forming new meanings* and 3. *borrowing words from other languages*.⁶ Other linguists⁷ divide forming of new terms according to their ways of formation: 1. *morphological* by means of derivation, compounding, abbreviation; 2. *syntactic* by forming collocations and multi-word phrases and 3. *semantic* by narrowing (specifying) the meaning of common words; by metaphoric and metonymic transfer of the previous meaning; 4. *borrowing words from other languages*.

³ World Health Organization. International statistical classification of diseases and related health problems. Retrieved from www.who.int/classifications/apps/icd/icd10online

⁴ Šimon, F. (1989): O historickom výskume medzinárodnej lekárskej terminológie. Bratisl Lek. Listy; 90 (1), p. 52.

⁵ Drozd, L. – Seibicke, W. (1973): Deutsche Fach- und Wissenschaftssprache. Wiesbaden: Oscar Brandstetter Verlag.

⁶ Peprník, J. (1992): Anglická lexikologie. Rektorát Univerzity Palackého, Filozofická fakulta, Olomouc. p. 7.

⁷ Poštolková, B. et al. (1983), p. 34.

The most productive type of terms formation is **derivation**.⁸ Derived medical terms can consist of a prefix, one or two word roots, and a suffix in various combinations, as witnessed in the following examples:

myocardium = myo- (prefix) + card(ium) (root)

endocarditis = endo- (prefix) + card (root) + *-itis* (suffix)

cytology = cyt(o) (root) + *-logy* (suffix)

gastroenterology = gastr(o) (root) + enter(o) (root) + *-logy* (suffix)

adenoma = aden(o) (root) + *oma* (suffix)

The second most productive type of word-formation is **compounding**. A compound word is a fixed expression made up of more than one word, e.g. *human being*, *blood donor*, *hay fever*, *Black Death*. While in German compound words are easily recognizable because they are always written together, in English writing of the compound words varies. Compound words may be written: 1. as two/three words: *blood pressure*, *blood group*, *heart attack*, *sleep walker*, *central nervous system*; 2. with a hyphen: *life-span*, *collar-bone*, *birth-control*; or 3. as one word: *gallstone*, *haemophilia*, *leucocytopenia*, *pseudopolycytemia*. There are no strict rules for writing the compound word. Occasionally some terms are written with a hyphen, occasionally as two separate words or one word. For instance: *life span* – *life-span*; *gall bladder* – *gallbladder*.⁹

Composition seems to be older than derivation from a diachronic viewpoint because the word-forming affixes developed from independent words. Similar process can be seen nowadays in the process of prefixoids (pseudoprefixes) and suffixoids (pseudosuffixes)¹⁰ e.g. *myo-*, *arthro-*, *haemo-/haemato-*, *adipo-*, *hepato-*, *onco-*, *patho-*; *-aemia*, *-logy*, *-tomy*, *-pathy*, *-cyte*, *-algia*, *-ectomy*, *-scope* etc. Each of these pseudo-affixes hides certain meaning, but they are not used as independent words. They have been developed artificially from Greek and Latin word roots for scientific purposes – to name new concepts.

Both mentioned types are also classed as morphological because they undergo certain morphological processes. While derivation and compounding prevailed in the past and preferred Latin and Greek roots and affixes, nowadays a syntactic way prevails – the **forming of multi-word phrases**, e.g. *Acquired Immune Deficiency Syndrome*, *Bovine Spongiform Encephalopathy*, *Severe Acute Respiratory Syndrome*, *Irritable Bowel Syndrome*, which successively undergo process of abbreviation because they are too long and uneconomical. Many English abbreviations have become in-

⁸ Peprník, J. (1992), p. 10

⁹ Peprník, J. (1992), 13.

¹⁰ Poštolková, B. et al. (1983), p. 42.

ternationally so well-known that many laymen may not know their English full-forms (*AIDS, HIV, BSE, SARS, and IBS*).

The fourth type of word-formation is **abbreviation**. An abbreviation is a shortened form of a word or phrase. There are many ways of forming abbreviations. Usually but not always, they consist of a letter or group of letters taken from a word or phrase. Abbreviations arise in written language and their spoken varieties can be either only a graphic one (*g – gram, h – hour*) or both a graphic and phonetic one, e.g. (*G.P.*) for *general practitioner* or an acronymic one e.g. [*eits*] for *AIDS*, which developed from its initialism. According to Crystal¹¹, acronyms are initialisms pronounced as single words, like *HIV* (*Human Immunodeficiency Virus*). Sometimes acronym can be formed from parts of words as in *Ameslan* (*American Sign Language*). Normally acronyms and initialisms are regarded as subgroups of abbreviations: "Some linguists do not recognize a sharp distinction between **acronyms** and **initialisms**, but use the former term for both."¹²

Initialisms are very popular in written medical English to shorten long descriptive terms. For instance terms from biochemistry such as: *deoxyribonucleic acid* " *DNA*, *ribonucleic acid* " *RNA*, *adenosine triphosphate* " *ATP*; clinical medicine: *acute lymphocytic leukaemia* " *ALL*, *chronic lymphocytic leukaemia* " *CLL*, *thrombotic thrombocytopenic purpura* " *TTP*, *autoimmune thrombocytopenia* " *AITP*, *idiopathic thrombocytopenia* " *ITP*, etc. Usage of initialisms is so frequent that in each text, it is necessary to introduce the full phrase first and then its abbreviation in brackets to avoid misunderstanding, e.g. the initialism *CML* – can mean either *chronic myeloid leukaemia*, or *chronic monocyte leukaemia*.

II. Marginal types of formation of terms

Besides these main types of word-formation, there is also enough space for minor types, such as conversion, back-formation, and clipping.

In **conversion**, words transfer from one word category to another word category without using any morphological means. This process has developed through the semantic need to attach a new meaning to a word. In this way verbs develop from nouns and adjectives, or nouns develop from verbs and so on. For instance *position* * *to position*, *lecture* * *to lecture*, *blind* * *to blind*, *to check* * *check-up*. Sometimes, instead of learning new adverbial suffixes our students misuse conversion i.e. by putting a noun in front of another noun to fulfil the function of an adjective, e.g. *connection*

¹¹ Crystal, D. (1995): The Cambridge Encyclopedia of the English Language. CUP, p. 120.

¹² Crystal, D. (1995): p. 120.

tissues instead of *connective tissue*, *skeleton muscles* instead of *skeletal muscles*, *nerve system* instead of *nervous system*.

Back-formation is the process of creating a new lexeme, usually by removing actual or supposed affixes. The resulting neologism is called *back-formation*, a term coined by James Murray in 1889.¹³ This process of word-formation is very rare in medical terminology. We have found just two medical terms formed in this way. The word *syringe* was formed from its plural form *syringes* dropping -s, see Greek sg. *syrinx*, pl. *syringes*. The verbs *euthanase* or *euthanize* come from the noun *euthanasia*. While back-formation may change the part of speech or the word's meaning, clipping creates shortened words from longer ones, but it does not change the part of speech or the meaning of the word.

Clipping is a type of word-formation that is apparently used rather more in professional slang than in regular terms. According to Marchand¹⁴, clippings are not coined as words belonging to the standard vocabulary of a language. They originate as terms of a special group like schools, army, police, the medical profession, etc. Clipped words arise after dropping either the beginning, final or central part of the word. Back clipping is the most common type, in which the beginning is retained, e.g. *exam*(ination), (*polio*)myelitis, *lab*(oratory), *doc*(tor), *vet*(erinarian) = *veterinary physician*. In middle clipping, the middle of the word is retained, e.g. *flu* (influenza). Fore-clipping retains the final part, e.g. (uni)*versity*.

Users of each language tend to express themselves as economic as possible and to omit redundant parts of long compounds or multi-word terms without diminishing their meanings. This type of shortening is much more used in English than in Slovak. In haematological terminology we have noticed that the stem morpheme -cyto- is often omitted in many terms, e.g. erythro(cyto)poiesis, granulo(cyto)poiesis, thrombo(cyto)penia, thrombo(cyto)pathia, thrombo(cyto)asthenia.

A very interesting process of forming a new term by means of clipping, blending and abbreviating can be seen in the phrase:

<i>polymorphonuclear neutrophilic leucocyte</i>		
<i>neutrophilic</i>	<i>polymorphonuclear</i>	-----
<i>poly</i> ----- <i>nuclear</i>	<i>neutrophilic</i>	<i>leucocyte</i>
<i>polymorphonuclear</i>	-----	<i>leucocyte</i>
-----	<i>neutrophilic</i>	<i>leucocyte</i>

¹³ Crystal, D. (2008): A Dictionary of Linguistics and Phonetics, 6th Ed. Blackwell Publishers.

¹⁴ Marchand, H. (1969). The Categories and Types of Present-Day English Word-formation. München. C.H.Beck'sche Verlagsbuchhandlung.

----- **neutro** ----- **cyte**
 ----- **neutrophil** -----
 professionalism: **polymorph** -----
 poly ----- **nuclear** -----
 poly -----
 Abbr. **PMN** (*polymorphonuclear*)

Today from all these terms the term *neutrophil* is used in the international terminology.¹⁵

Too many synonymic terms for one concept is an unwanted phenomenon in scientific language and contributes to misunderstanding. Although **polysemy**, **homonymy** and **synonymy** are unwanted phenomena in medical terminology, however, their occurrence is relatively abundant and no branch of medicine can avoid them. Polysemy and synonymy accompany the development of each new branch of medicine. This situation is typical for a time of rushed forming of new terms and theoretical processing of scientific terminology.¹⁶ While homonyms are rather rare within one branch of medicine, synonyms quantitatively enlarge the vocabulary. Synonyms are defined as words with similar or very close meanings. Synonymy is very closely connected with **calques** (words translated from other languages).

Synonyms

Synonymy can appear in several levels: 1. Along with an international Greek/Latin term, another synonym formed from foreign (Greek/Latin) elements has developed at the same time, e.g. *erythrocyte* x *normocyte*; *neutrophil* x *polymorphonuclear leucocyte*; *antihaemophylic factor A* x *coagulation factor*; *asiderotic anaemia* x *sideropenic anaemia*; *haematopoiesis* x *sanguinification*, etc. Such synonyms arise due to the different motivation of word-formation of individual terms. For example in the term *erythrocyte* the red colour is emphasized. In its synonymic term *normocyte* the normal development of the cell is emphasized. Similarly in the term *neutrophil* the neutral stain used in staining of leucocytes in laboratories was the basic motivating element in development of this term, while in its synonymic variety *polymorphonuclear leucocyte* it was the amount of differently shaped cores which the white cell contains.¹⁷

¹⁵ Besa, E. C. et al. (1992): Hematology. Harwal Publishing. pp. 464 - 477.

¹⁶ Horecký, J. (1984): Grécko-latinské elementy v terminológii. Kultúra slova. 18 (5), 135-137.

¹⁷ Besa, E. C. et al. (1992): Hematology.

2. An international Greek/Latin term has been translated into English, e.g. *erythrocyte* – *red blood cell (RBC)*; *leukocyte* – *white blood cell (WBC)*; *thrombocyte* – *blood platelet*; *monocyte* – *mononuclear cell*; *haematopoiesis* – *blood cell production*; *coagulation* – *blood clotting*; *haemolysis* – *blood destruction*; *haemostasis* – *arrest of bleeding*. Translations (calques) of Greek/Latin terms into English have different stylistic value and validity. While the international terms *erythrocytes*, *leukocytes*, *thrombocytes* and *coagulation* serve for specialists, their English equivalents *red blood cells*, *white blood cells*, *blood platelets* and *blood clotting* are used in articles or speech determined for the common reader or listener.

3. Sometimes along with a borrowed term, several variants of a translation occur and enter mutually into synonymic relations, e.g. *erythrocyte* – *red (blood) cell* x *red (blood) corpuscle*; *phagocyte* – *phagocytic cell* x *defensive cell*, or the colloquial expression *scavenger cell*; *haematostasia* – *control of haemorrhage* x *control of bleeding* x *prevention of blood loss*. A similar synonymic relationship exists between varieties of the following terms: *Hodgkin's disease* – *Hodgkin's granuloma* – *Hodgkin's sarcoma*; *myeloproliferative syndrome* – *myeloproliferative disease* and *myeloproliferative disorder*.

While in the past, national medical terminologies often borrowed medical terms from Latin, nowadays this process of word-formation is rather unproductive. Loanwords are typical for the modern period. A great number of English scientific words have entered the language from French.¹⁸

Loanwords are words borrowed from other languages, also called borrowings. According to different sources, nearly 30 % of all English words are of French origin. From medical terms we have selected the following examples: *bowel*, *cartilage*, *cramp*, *curette*, *degeneration*, *deglutition*, *delivery*, *denture*, *diarrhoea*, *diphtheria*, *disease*, *dislocation*, *malaise*, etc. Another 29 % of words are of Latin origin (*femur*, *humerus*, *occiput*, *mandible*, *puncture*, *pulp*), 26 % of words are of Germanic origin – usually common everyday word (*hand*, *finger*, *nose*, *arm*, *chin*, *wrist*, *foot*, *head*, *hip*, *hair*) about 6 % of Greek origin (*bregma*, *chorion*, *diabetes*, *emphysema*, *myopia*, *ophthalmia*, *pneumonia*, *stigma*, *trauma*) and about 6 % are taken from other languages, and 4 % are derived from proper names.¹⁹ While loanwords are lexical borrowings, calques are borrowings taken from other languages by literal, word-for-word or root-for-root translation (for examples see section on synonymy).

¹⁸ Marchand, H. (1969). *The Categories and Types of Present-Day English Word-formation*. München. C.H.Beck'sche Verlagsbuchhandlung.

¹⁹ Džuganova, B. (2002): A brief outline of the development of medical English. *Bratisl Lek Listy*; 103 (6): 223-227.

Terms with a -onym ending

A very special type of medical terms are various ‘-onyms’, such as eponyms, toponyms, mythonyms, and backronyms. The -onym words come from the Greek *onyma* meaning ‘name’. Although this type of terms seems to be rare, the reverse is true. Of all the “-onyms” **eponyms** are the most frequent. Some authors also call this type of word formation “anthroponyms” from the Greek word *ánthropos* meaning “man”.²⁰ Medicine has been enthusiastic in naming tests, symptoms, and diseases after their discoverers. Some sources state there are about 8,000 eponyms²¹; others estimate their number to be up to 30,000.²² In some branches of medicine, there are even eponymic dictionaries.

It is not always easy to explain the origin of the -onyms, because they do not reflect any essential characteristic of the term. They do not inform us about the content of the term. Eponyms have a long tradition in Western medicine. Being awarded an eponym is regarded as an honour: “Eponymity, not anonymity, is the standard.”²³ At a time when medicine lacked the tools to investigate the underlying causes of many syndromes, the eponym was a convenient mechanism for attaching a label to a disease. Some diseases have been named after the persons who first described the condition or after a patient or literary figure who suffered such a disease. This usually involves publishing an article in a respected medical journal. Such was the case of a progressive degenerative disorder of the central nervous system, named after the English doctor, James Parkinson, or of a special form of dementia studied and first described by the German neuropathologist, Alois Alzheimer, these two very serious diseases afflicting mainly the older generation nowadays.

Eponyms are not a completely new phenomenon in medicine. They were known already in Galénos’ era (appr. 125 – 199 BC).²⁴ The wider use of eponyms, however, started in the first half of the 19th century²⁵, when in honour of the physician-discoverer a discovered part of the human body, disease, symptom, syndrome, factor, anomaly etc. were first named, e.g. *Fallopian tube*, *Bartholin’s gland*, *Golgi apparatus*,

²⁰ Karenberg, A. (2005): *Amor, Åskulap & Co. - Klassische Mythologie in der Sprache der modernen Medizin*. Stuttgart. Schattauer-Verlag.

²¹ Retrieved from <http://www.whonamedit.com>

²² Bujalková, M. (2011): *Lekárska terminológia v súčasnom a historickom kontexte*. Univerzita Komenského. Bratislava, p. 20.

²³ Merton R K (1973): *What is a Name? The eponymic route to immortality*. Retrieved from www.wikipedia.org/wiki/List_of_eponymous_diseases.

²⁴ *Kronika medicíny*. (1994) Fortuna Print. Bratislava, p. 629.

²⁵ Šimon, F. (1989): *O historickom výskume medzinárodnej lekárskej terminológie*. Bratisl Lek Listy. 90 (1), p. 51.

von Willebrand disease/syndrome, Werlhof's disease, Cooley's anaemia, Alder's constitutional granulation anomaly, as well as deviations in the colouring of an erythrocyte or morphological changes of leucocytes – *Heinz bodies/Heinz – Ehrlich bodies, Howell – Jolly bodies, Döhle bodies* etc. As you can notice some eponyms occur in more than just one variety, e.g. *Franconi's syndrome/Franconi's pancythopenia/de Toni Franconi syndrome*, or more physicians – discoverers appear in one eponym, e.g. *Chediak – Steinbrinck – Higashi syndrome*.²⁶

English physicians such as Sir James Paget (2), Richard Bright (3) and Thomas Addison (2) all gave their names to more than one disease. Andrews²⁷ says, however, that only one eponym has survived. We have found out that in the *International statistical classification of diseases and related health problems* there are two eponyms named after the British physician Thomas Addison – *Addison's disease* (a disorder that occurs when the adrenal glands do not produce enough hormones, in the past often combined with tuberculosis) and *Addison's anaemia* (a blood disorder caused by a lack of vitamin B12, better known today as pernicious anaemia, or *Biermer's anaemia*, or *Addison–Biermer anaemia*). Another English physician Christopher Addison has given his name to a part of the anatomy – *Addison's plane*.²⁸

Occasionally an eponymous disease may be named after a patient (examples include *Christmas disease, Hageman factor, Hartnup disease, Mortimer's disease, and Lou Gehri's disease*). Christmas and Hageman were the first patients described with blood clotting disorders due to a deficiency of factor IX and factor XII.²⁹ Six of 12 blood clotting factors have, besides their biological and numeric designation, also an eponymic name (factor VIII – *von Willebrand factor*, factor X – *Stuart – Prower factor*, factor XI – *Rosenthal factor*, factor XIII – *Laki-Lorand factor*, factor XII – *Hageman factor*, IX antihaemophylic factor B – *Christmas factor*).³⁰

Two-name eponyms are often shortened to one name only: e.g. *Howell – Jolly bodies* to *Howell's bodies* or *Jolly's bodies*; *Cabot – Schleip rings* to *Cabot's rings*; *Wiscott – Aldrich syndrome* to *Aldrich's syndrome*. Similarly with three-name eponyms, e.g. *Chediak – Steinbrinck – Higashi anomaly*, which is shortened to *Chediak – Higashi anomaly*.

The unclear motivation of eponyms causes difficulties in their usage. They are often replaced by descriptive terms e.g. *Christmas disease* " *haemophilia B*. The *Bernard-*

²⁶ Besa, E. C. et al. (1992): Hematology.

²⁷ Andrews, E. (1947): A History of Scientific English. The Story of its Evolution Based on a Study of Biomedical Terminology. Richard R. Smith. New York, p. 77.

²⁸ Dorland's Illustrated Medical Dictionary. (1988): 28th Ed. W. B. Saunders Company. Philadelphia, p. 25.

²⁹ Asimov, I. (1978): Slova ve dy. Co se za nimi skrýva? Edice Pyramida – Encyklopedie. Nakladatelství Panorama. Praha.

³⁰ Hrubíško, M. et al. (1981): Hematologie a transfúziologie. Vydavatelství Osveta. Martin.

Soulier Syndrome (B-SS) is a rare inherited bleeding disorder caused by abnormal platelets and subsequent abnormal clotting. This syndrome was originally described in 1948 by two physicians who were treating a patient with a bleeding problem. The eponym *Bernard – Soulier syndrome* is sometimes replaced by *hemorrhagiparous thrombocytic dystrophy*, or *Giant Platelet Syndrome*. *Non-Hodgkin lymphoma* can be replaced by *lymphosarcoma*, *Schönlein – Henoch purpura* by *purpura rheumatica* etc.

WHO experts prefer descriptive multi-word terms to eponyms in processing the *International statistical classification of diseases and related health problems*.³¹ Sometimes an eponym is too well-known, however, and occurs even in a negative form; *pernicious lymphogranuloma* is better known as *Hodgkin's disease/granuloma/ sarcoma*), its histologically negative variety being called *non-Hodgkin's lymphoma*.

An advantage of eponyms is that they express a complex and very complicated concept in one word. A disadvantage is that they have no meaning, which is why it is more difficult to remember them than descriptive multi-word terms. Only experts are familiar with eponyms; they have no exact scientific accuracy. Usage of eponyms varies in different countries. While in Germany, the eponym *Morbus Basedow* is used, in English the same concept is named *Grave's disease* or *Morbus Graves*.³² Alexander Woywodt and Eric Matteson argue that eponyms are no longer appropriate, but Judith A. Whitworth³³ believes they remain a useful reflection of medical history: "Eponyms bring colour to medicine, they provide a convenient short hand for the profession and the community alike, and they embed medical traditions and culture in our history. The use of eponyms in medicine, as in other areas, is often random, inconsistent, idiosyncratic, confused, and heavily influenced by local geography and culture. This is part of their beauty. For example, *Plummer-Vinson syndrome* in the United States (and Australia), *Paterson-Kelly's syndrome* in the United Kingdom, and *Waldenstrom-Kjellberg syndrome* in Scandinavia all describe *sideropenic dysphagia*. There are even differences within countries. For example, *cholecystography* was known as such in Melbourne but called the *Graham test* in Sydney".

The category of eponyms might be subdivided to add **toponyms**, **mythonyms**, and **backronyms**, all of which occur less frequently than eponyms. **Toponyms** are terms which use geographic names in naming some disease, disorder, syndrome, etc. In haematological terminology, the pathological types of haemoglobin are labelled with capital letters starting with C to S (except for R) or by a letter and a place where

³¹ Šimon, F. (1989): O historickom výskume medzinárodnej lekárskej terminológie.

³² Woywodt, A. – Matteson, E. (2007): Should eponyms be abandoned? Yes. BMJ. September 1; 335 (7617), 424. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1962844/>

³³ Whitworth J. A. (2007): Should eponyms be abandoned? No. BMJ. September 1; 335(7617), 425. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1962881/>

they were detected for the first time. They are written as upper or lower index under the chain the mutation relates to, e.g. *haemoglobin G_{Philadelphia}* or *haemoglobin M_{Boston}*. Sometimes the term is also written with an abbreviation of the place of discovery, then the transcript is as follows: *haemoglobin M_S* (M_{Saskatoon}), *haemoglobin M_M* (M_{Milwaukee}). Similarly we have found haemoglobin named after Seattle, Geneva, Hiroshima, Zürich.³⁴ To limit usage of capital letters, new types of haemoglobin are named after laboratories, hospitals and cities where they were discovered e.g. *haemoglobin Norfolk*.³⁵

Bornholm disease is caused by a viral infection, causing pain in the chest or abdomen, with flu-like symptoms. The infection can spread easily from one person to another and tends to occur as an outbreak in a community, or even as an epidemic affecting a large number of people in one area. It is named after the Danish island, Bornholm, where early cases occurred.³⁶

In Slovakia, *Lyme disease/Lyme borreliosis* often occurs among forest workers. Lyme disease is spread by bites of infected ticks. Early symptoms may include headache, fever, fatigue, and a characteristic circular skin rash called erythema migrans (EM), later symptoms may involve the heart, joints, and central nervous system. The full syndrome was not recognized until a cluster of cases, originally thought to be juvenile rheumatoid arthritis, was identified in three towns in south-eastern Connecticut in 1975, including the towns Lyme and Old Lyme, which gave the disease its popular name.³⁷

Another term motivated by a place name is *Ebola hemorrhagic fever* – a severe, often fatal disease in humans and primates that has appeared sporadically since its initial recognition in 1976. The disease is caused by infection with the Ebola virus, named after a river in the Democratic Republic of the Congo in Africa, where it was first recognized.

A very interesting group of medical terms are terms motivated by Greek mythology. These terms are also called **mythonyms**.³⁸ Greek myths were a rich source for creation of new medical terms. Ancient physicians familiar with Greek mythology, took inspiration from it in naming new things. Nowadays the situation is completely different. Education in classical languages is declining and there is a fear that the moti-

³⁴ Hule, V. – Hrubisko, M. (1969): Hematologie a krevní transfúze. Státní zdravotnické nakladatelství. Praha. p. 46.

³⁵ Dorland's Illustrated Medical Dictionary, 1994, p. 748.

³⁶ Hopkins J. H. (1950): Bornholm disease. BMJ 1 (4664), 1230-2.

³⁷ Steere AC (2006). Lyme borreliosis in 2005, 30 years after initial observations in Lyme, Connecticut. Wiener Klinische Wochenschrift. 118 (21–22): 625–633.

³⁸ Karenberg, A. (2005): Amor, Áskulap & Co. - Klassische Mythologie in der Sprache der modernen Medizin.

vation of terms by mythological heroes will be lost along with the semantic meaning of such mythonyms. Hopefully mythonyms will not be replaced. Well known mythonyms are *Achilles tendon*, *Diogenes syndrome*, (also known as *senile squalor syndrome*, a disorder characterized by extreme self-neglect, social withdrawal, apathy, compulsive hoarding of rubbish, and lack of shame), *narcissism* (excessive love or admiration of oneself), *Oedipus complex* (in psychoanalytic theory, a desire for sexual involvement with the parent of the opposite sex and a concomitant sense of rivalry with the parent of the same sex; a crucial stage in the normal developmental process. Freud attributed the Oedipus complex to children of about the ages three to five.), *gigantism* (a disorder due to the increased activity of the pituitary gland releasing too many growth hormones). According to Greek mythology, the Giants after having lost the battle with the Olympians, were buried by the gods beneath the earth, where their writhing caused volcanic activity and earthquakes.³⁹

The last type of *-onym* terms are **backronyms**. We have chosen just one term, which was developed for educational purposes as a mnemonic. It is the *Apgar score*, first used to ascertain the effects of obstetric anesthesia on newborn babies. The rating system was devised by and named after Virginia Apgar. She started to apply five signs monitored by anaesthesiologists during surgeries (1. heart rate, 2. respiration, 3. muscle tone or activity, 4. reflex response to stimulation, and 5. colour) in evaluating the life activities of newborn babies. By the early 1960s, many hospitals were using Apgar's scoring method. Later a backronym was created using the letters of her name as a mnemonic device for the five scoring criteria: A – Appearance (Colour), P – Pulse (Heart rate), G – Grimace (Reflex irritability), A – Activity (Muscle tone), and R – Respiration. Another case where Dr. Apgar's name is eponymous for a backronym is *American Paediatric Gross Assessment Record*.⁴⁰

Conclusion

Although the formation of terms may seem to be formal and uninteresting for many people, besides the precise, pragmatic, structural forms of word-formation there are also many marginal types of terms that hide a story in their name. It may sometimes be a challenge for a language teacher to collect, study, summarize and even write a paper about them, while discussing the origin of terms with medical students will give them greater insight into the history of medicine and enable them to look at certain terms from a different perspective. Another important issue is that in teach-

³⁹ Retrieved from <http://www.britannica.com>

⁴⁰ Retrieved from <http://profiles.nlm.nih.gov/CP/Views/Exhibit/narrative/obstetric>

ing and practising medicine, we need to be absolutely and unequivocally sure about the meanings of the terms which we use. Analysing the derivation of important medical terms forces us to reflect on their exact meaning and be aware of any possible ambiguity. "Medical terms are very much like individual jigsaw puzzles. They are constructed of small pieces that make each word unique, but the pieces can be used in different combinations in other words as well."⁴¹

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⁴¹ Chabner, D. E. (1996): *The Language of Medicine*. W. B. Saunders Company, New York, p. 1.

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Abbreviations in English medical terminology and their adaptation to Croatian

ABSTRACT

The research presents results of classifications and analyses of alphabethisms, acronyms and their hybrid forms on a limited corpus of the English medical terms. Alphabethisms and acronyms were classified according to two criteria: narrower and broader sense, and their differences in orthographic formation were described by a set of specific descriptors. This kind of description, classification and analysis was used in examining the corpus of both English and Croatian medical terms. In the analysis of orthographic adaptation of English alphabethisms to Croatian, three degrees of their adaptation were suggested: zero orthographic change, partial/compromise adaptation and complete adaptation. Substitution and adaptation on the orthographic level is tentatively named transgraphemization.

Key words: English, alphabethisms, acronyms, medicine, descriptors, adaptation, Croatian, transgraphemization, zero orthographic change, partial and complete adaptation

1. Introduction

The English language has witnessed a prominent increase in the number of abbreviations used in the past several decades. This applies to both general language and specialized jargons of various professions, such as the medical profession, from which the basis of this work is taken. The authors, such as Cannon, note that the abbreviations have been used for thousands of years, ever since the Sumerian times

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(1989: 29). However, the process of their creation has long been neglected as they do not belong to regular morphemic processes (Fandrych 2008a: 71). Although Lehrer (2007) and Cannon (1989) provide some examples of abbreviations in English language from 16th century on, the first significant increase in usage of abbreviations in the English language was recorded in the mid 20th century during the World War II, through appearance of new weaponry, military technologies and government organizations (Cannon 1989: 101). At that point, the technological advance brought new military terms and their respective abbreviations. A similar situation can be seen in the field of medical terminology in which new treatments, diagnostics and diseases are discovered every day, which causes new terms to arise, and consequently, new abbreviations (Gjuran-Coha and Bosnar-Valković 2008: 1-2). Works, such as those of Fandrych (2007) and Bieswanger (2007), show that the usage abbreviations is not reserved exclusively for the formal register; instead, they are equally used in both highly specialized technical jargon and informal types of internet or mobile phone communication, denoted as “Netspeak” and “Textspeak” (Crystal 2004).

2. The problems with classification

One of the defining traits of this word formation group is the lack of consistent categorisation and typology, and fixed boundaries between the respective types of abbreviations. López Rúa (2004: 110) states that there are numerous disagreements over what an acronym in general is and what proper abbreviations, clippings and blends are (Ibid., 110). A plausible explanation for this is provided by Cannon who states that some of the first attempts of classification in this field only brought more confusion as many of the classifications were false and contradictory (1989: 106). One of the examples of this are the Gale dictionaries which elicit some textbook examples of blends like *motel*, *brunch* and *smog* as acronyms not blends (Crowley and Sheppard 1987, Sheppard and Towell, 1987). Similar examples of incorrect classifications can be found in Fischer’s work as well (1998: 28).

Another discrepancy within this field is the lack of consistent usage of a certain term for certain abbreviation type. Among the authors cited in this work, there is a great disagreement over what the terms initialism, alphabetism and acronym represent and what they should be used for (cf. Plag 2003, Algeo 1991, Jackson and Zé Amvela 2005, Fandrych 2008a & b, Stockwell and Minkova 2001, Harley 2006, López Rúa 2006, Cannon 1989, Crystal 1995). Similar discrepancies regarding the differentiation between clippings, blends and clipped compounds may be seen when comparing Fandrych (2008), Plag (2001), and Algeo (1991).

3. The classification of abbreviations in the research

3.1. The taxonomy of abbreviations

The classification of abbreviations used in this work largely relies on López Rúa's (2006) work. According to her, abbreviations are divided into simple and complex abbreviations, with the former encompassing only proper abbreviations, such as *Mr.*, *prof.* and *dr.*, which appear in the written medium only. The latter subcategory, complex abbreviations, includes blends, clippings and initialisms, which are further divided into alphabetisms and acronyms. Complex abbreviations appear in both written and spoken medium, but certain works, such as Crystal (2001), Fandrych (2007), and Bieswanger (2007) mention the electronic medium, abundant in complex abbreviations, as the third medium.

According to López Rúa, an initialism is “[...] the result of selecting the initial letter, or occasionally the first two letters, of the orthographic words in a phrase and combining them to form a new sequence” (2006: 677). The pronunciation of initialisms depends on various linguistic factors, but there are two main modes of their pronunciation – as a word (prototypical acronyms), and as a series of letter names (prototypical alphabetisms) (Ibid., 677). There are some abbreviations which can be pronounced both ways (*VAT/Vat* < ‘Value Added Tax’), and some hybrid abbreviations that are pronounced as a combination of the two ways (*CD-ROM* < ‘compact disc read-only memory’). However, they are far less frequent (Ibid., 677).

Clippings are abbreviations created through a “[...] process by which a word-form of usually three or more syllables is shortened without a change in meaning or functions” (Ibid., 676). Although clippings express informal connotations and familiarity (Plag 2003) or even serve as euphemisms (Fandrych 2008b), which ultimately leads to different stylistic properties of the word, the meaning more or less remains intact. Despite this, there are some examples of clippings completely replacing their source phrases (*bus* < *omnibus*).

The morphological and phonetic properties of blends, the last type of complex abbreviations covered, are a topic of numerous works (e.g. Gries 2004a & 2004b, Lehrer 2007, Crystal 2001, Fandrych 2007, 2008a & 2008b, López Rúa 2006 & 2007, Cannon 1989, Plag 2003). While there are numerous definitions of the term, López Rúa's definition was chosen for the purpose of this work, as her explanation is deemed sufficiently complex for this type of analysis. She states that the blends are created by “[...] joining two or more word-forms through simple concatenation or overlap and then shortening at least one of them” (2006: 677).

We find this taxonomy appropriate as it clearly distinguishes certain abbreviation types, that is, it does not provide the same name for certain superordinate and subordinate terms as it is the case in some works. This in particular refers to the terms for initialisms, alphabetisms and acronyms, which are often used interchangeably or wrongly dubbed abbreviations or shortenings (e.g. in Plag 2003, Jackson and Zé Amvela 2005). Another argument for this usage of terms are the descriptive feature of each abbreviation subcategory. The term *initialism* denotes an abbreviation created through usage of initial letters, which applies to both alphabetisms and acronyms. The term *alphabetism* denotes an abbreviation pronounced as a series of letters of the alphabet, i.e. letter-by-letter, while the term *acronym*, coined in 1943, has been generally accepted to denote abbreviations pronounced as whole words.

3.2. The processes underlying the creation of abbreviations

Following Fandrych (2008), the abbreviations are created through a process known as the “submorphemic” or “non-morphemic word formation”. This implies that the word-forming processes responsible for the creation of all abbreviation types use elements smaller than morphemes – *splinters* for blends and clippings and *initials* for initialisms. Adams (1971) perceives splinters as irregular parts of morphs, while Lehrer (2007) regards them as clippings which cannot occur alone but in combination with another splinter or word. However, as the latter explanation clearly excludes clippings from splinter-related processes, one should distinguish between the “bound splinters” used for blends and “free splinters” used for clippings.

The term *initial* stems from Cannon’s work (1989) and it denotes the initial letters/phonemes of source phrases used in the creation of initialisms. López Rúa (2004 & 2006) adds that the letters used for the creation of initialisms are not always necessarily the initial ones (2004: 125), and that sometimes initialisms take first letters of compound constituents, such as *ECG* < ‘electrocardiogram’ (2006: 677).

Although the previous instances of abbreviations were motivated by creativity and originality, recent works indicate that contemporary initialisms are increasingly motivated by language economy rather than jocular intent or creativity (Cannon 1989). However, certain initialisms still exhibit playful character through homonymy, homophony and humorous re-interpretation of existing words and abbreviations (Fandrych 2008b: 111-112). On the other hand, blends and clippings have retained the creative tendencies and are used in numerous ways to capture the attention of the reader (Lehrer 2007: 128). The abbreviations in our corpus, predominantly alphabetisms, are motivated by language economy, although several instances of hybrid abbreviations are homonymous and homophonous with existing words, e.g. *NOESY* which is an obvious re-interpretation of the word *noisy*.

4. The corpus and its sources

The abbreviations analysed in this work are taken from two Croatian medical journals – *Acta Pharmaceutica* (12 issues; from 2004 to 2011) and *Gynaecologia et Perinatologia* (6 issues; from 2009 to 2011). Tanay's dictionary, *Hrvatsko-engleski, englesko-hrvatski rječnik medicinskoga nazivlja s izgovorom* was used to provide additional information. The authors would like to thank Mihaela Oros Čačić, M.D. for her sincere and ardent help on pronunciation of adapted English medical terms in the Croatian medical terminology.

The abbreviations belong to nine lexical fields of medical lexicon shown below and are marked in the Appendix by numbers from 1 to 9 shown in the parentheses for each lexical field:

- diseases, disorders, symptoms and syndromes (1),
- research and treatment methods (2),
- models (mathematic, computer, measurement) (3),
- chemistry and pharmacology (4),
- associations, organisations, centres and institutes (5),
- classification systems, parameters, variables and technologies (6),
- body matter, hormones (7),
- parts of the body (8), and
- bodily functions (9).

The most abbreviations belong to the field of research and treatment methods with 59 abbreviations, classification systems, parameters, variables and technologies with 40 abbreviations, and chemistry and pharmacology with 34 abbreviations.

The corpus comprises 208 abbreviations, all belonging to the category of initialisms. There are 177 alphabetisms, 21 acronym and 10 hybrid abbreviations. The analysis examines the orthographic elements used in the formation of initialisms, such as initials, prefixes, numerals and syllables, and various types of orthographic changes that the elements of abbreviation undergo, such as metathesis, ellipsis, conversion and addition.

Our corpus, given in the Appendix, provides the additional information for each abbreviation in the following order: source phrase, descriptor of symbol usage, abbreviation type and length, source phrase length, orthographic change and its details and semantic field. The information given in the Appendix are provided in order to substantiate the subclassification of abbreviations into abbreviations in broader and narrower sense. When comparing the abbreviation length and the number of source phrase constituents, a discrepancy between the two was noticed for some abbrevia-

tions, for example CDC ‘Centre for Disease Control and Prevention’, EBGO ‘European Board of Obstetrics and Gynecology’ and IARC ‘International Agency for Research of Cancer’, which is why the abbreviations in narrower sense are distinguished from those in broader sense. The abbreviations in narrower sense are those which have 1 symbol per 1 source phrase constituent, whereas abbreviations in broader sense do not adhere to these rules, which results in mentioned orthographic changes.

5. Alphabetisms, acronyms and hybrid forms in narrower and broader sense

For the purposes of our research, alphabetisms and acronyms in English medical terminology will be classified according to two criteria: broader and narrower sense. The narrower sense of understanding the formation of alphabetisms and acronyms refers to those that are formed according to their orthographic norms, i.e. “[...] using the initial letters of the words of an expression, pronounced by the alphabetical names of the letters [...]” (Algeo 1993: 9). The broader sense is understood as the ways and processes of their formation, more or less different from the orthographic norms, in consequence of which, one or more initials for various smaller elements of the source phrase (smaller than words), are used. Due to this, initials for final graphemes, compounds, affixes, grammatical and lexical words, as well as different orthographic changes, such as ellipsis, conversion, metathesis and addition, are being analysed and classified.

The analysis has further shown the possibility of their subclassification according to the above mentioned characteristics. For the purposes of the study, a set of additional alphabetisms was introduced, which provides a better and transparent description and classification of terms. The initials in our set of descriptors describe elements of both alphabetisms and acronyms in the medical terminology, in narrower and broader sense. The set of descriptors might also be used as an efficient lexicographic tool used for description of different characteristics of non-morphemic word-forms.

Generally speaking, initials of descriptors are of two kinds – those representing capital and those representing small letters, i.e. *L* is used for initials in an alphabetism formed of capital letters, and *l* for those formed of small letters. All other initials describe their final realizations with different orthographic or morphological characteristics, e.g. *P* refers to an initial representing affixes (mostly prefixes) from source phrases, *N* stands for a numeral, *S* refers to a syllable, and *W* stands for a word from a source phrase transferred as a whole in an abbreviation. Compared with the combination of describing initials *Ll*, an underlined descriptor, *Ll*, stands for those which

present the first two or any other graphemes of the source phrase lexeme. Orthographic changes, evident by comparing alphabetisms or acronyms with their source phrases, are explained by the following initials: *E* for ellipsis, *C* – conversion, *M* – metathesis, and *A* for addition of a word or a diacritic sign not found normally in source phrases. Thus, we got combinations of initials representing different realizations of alphabetisms, i.e. descriptors, e.g. *LLL*, *lll*, *NLL*, *PLL*, *SLL* etc.

Our classification and further subclassification of alphabetisms and acronyms in narrower and broader sense is shown in the following table. Descriptors used in the table present all realizations of the analysed medical terminology. Numerals in brackets show a total number of alphabetisms, acronyms and their hybrid forms.

ALPHABETISMS		ACRONYMS		HYBRIDS (alph.+acr.)	
in narrower sense	in broader sense	in narrower sense	in broader sense	in narrower sense	in broader sense
LLL (124)	LLL E (24)	LLL (10)	LLL E (4)	LLL (2)	LLL E (2)
			LLL E, M (1)		LLL E, A, M (1)
	L LL (1)				
	L LL E (2)				
	PLL (9)		PLL (1)		PLL (2)
	PLL E (1)				
	PPL (2)		PPL (2)		P <u>ll</u> E, A (1)
	PPL E (2)				PPL (1)
	LIL (1)				
	<u>ll</u> L (1)				<u>ll</u> L (1)
	<u>ll</u> L E (1)				
	L-LL (2)				
	L-LL E, A (1)				
					L-LW (1)
	L/LL (1)				
	l/l/l E, A (2)				
	NLL E, A, C (2)				
	N-LL (1)				
			SLL (1)		
			SLL E (1)		
			SSL E (1)		

Classification and description of the corpus starts with alphabetisms, and is followed by the analysis of acronyms and hybrid forms. Each class of these formations is then subdivided according to two criteria: criterion of narrower and broader sense.

5.1. Alphabetisms in narrower sense

Classification of alphabetisms in narrower sense starts with those formed of initials written with capital letters and taken from every single element (lexemes) in source phrases, i.e. one initial representing one lexeme in a source phrase. This class of alphabetisms is the most abundant in our research. The descriptor representing such alphabetisms is the one worded as *LLL*.¹

TYPE: LLL	
ALPHABETISM	SOURCE PHRASES
AD	A lzheimer's D isease ¹
BCS	B iopharmaceutical C lassification S ystem
CDRI	C entral D rug R esearch I nstitute
LMPSA	L ow M elting P oint S ugar A lcohol

Sometimes, an alphabetism might be formed of initials and individual letter(s) found in source phrases, e.g.

TYPE: LLL	
ALPHABETISM	SOURCE PHRASES
ENGBSS	E arly N eonatal G roup B S treptococcal S epsis

Those abbreviations formed of initials from compounds in source phrases are also directly connected to the group of alphabetisms in narrower sense, e.g.:

TYPE: LLL	
ALPHABETISM	SOURCE PHRASES
BBB	B lood- B rain B arrier
HMBC	H eteronuclear M ultiple- B ond C orrelation
SEDDS	S elf- E mulsifying D rug D elivery S ystems

¹ For the purpose of a more transparent presentation and explanation of alphabetisms and acronyms in our study, we decided to present all initials in source phrases, used either in alphabetisms, acronyms or hybrid forms, with capital letters. This means that lexemes in original source phrases might have either been written with capital or small letters.

5.2. Alphetisms in broader sense

When comparing alphetisms classified according to the criteria of narrower and broader sense and studying the analogy between alphetisms and their source phrases, we shall find that the alphetisms in broader sense are to be classified differently. Their most distinguishing features can most clearly be seen in the ways of their formation. Among the most notable ones are those of ellipsis of either grammatical or lexical words (or sometimes both) and the conditioned or unconditioned use of blankness between initials in alphetisms. Conditioned blankness refers to those cases in which changes were caused by ellipsis in alphetisms while the unconditioned blankness in the orthography of alphetisms is taken as it is, i.e. there were no changes involved in their final orthographic form. The blankness between the elements of alphetisms is also recognized in the descriptor by a space between the first and the second initial, i.e. *L LL*.

5.2.1. Ellipsis

Ellipsis can be of three kinds: either a lexical or grammatical word is omitted, or both lexical and grammatical words are omitted from alphetisms, e.g. in *ASA*, the preposition ‘*of*’ was omitted, in *CDCC*, the adjective ‘*targeted*’ was omitted, and in *CDC* the preposition ‘*for*’, the conjunction ‘*and*’, and the noun ‘*prevention*’ were omitted.

TYPE: LL E	
ALPHABETISM	SOURCE PHRASES
ASA	American S ociety <i>of</i> A nesthesiologists
CDDS	Colon <i>targeted</i> D rug D elivery S ystems
CDC	Centre <i>for</i> D isease C ontrol <i>and</i> <i>prevention</i>

5.2.2. Blankness between initials

Alphetisms with blankness between initials are of two kinds: those with the conditioned and those with the unconditioned blankness between initials. In *FT NMR*, when compared with its source phrase, the blankness between *FT* and *NMR* was not conditioned by any additional change, while in *C NMR* we can trace the changes conditioned by the ellipsis in the source phrase, which means that both a numeral and a hyphen were omitted.

TYPE: L LL; L LL E	
ALPHABETISM	SOURCE PHRASES
FT NMR	F ourier T ransform N uclear M agnetic R esonance
C NMR	C arbon-13 N uclear M agnetic R esonance
H NMR	H ydrogen-1 N uclear M agnetic R esonance

5.2.3. Affixes

Alphabetisms with a combination of initials referring to lexical morphemes and affixes in source phrases are generally of two kinds: the first belongs to the group of alphabetisms with only one initial for an affix and the second refers to those with more than one initial for affixes. These initials represent abbreviated prefixes, such as: *pre-*, *peri-*, *infra-*, *multi-*, *intra-*, *anti-*, *poly-*, *micro-* and *non-*. Number of initials in alphabetisms can range from two up to five.

TYPE: PLL	
ALPHABETISM	SOURCE PHRASES
PE	P re E clampsia
PNM	P eri N atal M ortality
FTIR	F ourier T ransform I nfra R ed
MFPR	M ulti F etal P regnancy R eduction

Features which make our analysis more interesting are those found in alphabetisms with initials taken from the combining forms. Due to the fact that combining forms have a very similar function in formation of words to that of prefixes, we grouped them under the class of *PLL* or *PPL*, i.e. the class of one or more initials for prefixes. The following combining forms were found in the analysed material: *immuno-*, *gastro-*, *neuro-*, *deoxy-*, *ribo-*, *electro-*, *chemo-*, *amino-*, *morpho-*, *thermo-*. Some of them, like *immuno-* and *gamma-*, are also used in formation of acronyms, but they will be discussed later. The following table presents examples of alphabetisms formed from initials referring to lexical words and one initial for a combining form.

TYPE: PLL	
ALPHABETISM	SOURCE PHRASES
GIT	G astro I ntestinal T ract
NFT	N euro F ibrillary T angles
TGA ²	T hermo G ravimetric A nalysis
GRDDS	G astro R etentive D rug D elivery S ystems

Alphabetisms with more than one initial for prefixes are also rare. There is only one example with prefixes *micro-* and *poly-*: *MNPCE* < **M**icro**N**ucleated **P**oly**C**hromatic **E**rythrocyte.²

There are cases in which, along with the abbreviated lexical words and combining forms, other combining forms are being omitted. This is the case with *DNA* (< **D**e-**o**xy**r**ibo**N**ucleic **A**cid) in which a combining form *-ribo-* (< *ribose*) was omitted.

As it was mentioned earlier, some of the alphabetisms take more than one initial for the combining forms in source phrases. This is the case with alphabetisms *ECT* and *MNPCE*.

The example of *PMN* shows the possibility of abbreviating the expression with a combination of ways. Namely, this example presents the case of abbreviating a prefix, a combining form and, at the same time, omitting a lexical word.

TYPE: PPL; PPL E	
ALPHABETISM	SOURCE PHRASES
ECT	E lectro C hemo T herapy
MNPCE	M icro N ucleated P oly C hromatic E rythrocyte
PMN	P oly M orpho N uclear <i>leukocyte</i>

5.2.4. Use of small letters in alphabetisms

Although small letters in medical alphabetisms are extremely rare, we find them important enough to make their own subgroup of alphabetisms in broader sense. They can be of several kinds. In *QbD* a grammatical word was abbreviated with a small letter, in *PlGF* – the first two graphemes of the first word were taken, and in *PhR-MA* a combination of ways is used in its formation, i.e. first two graphemes of the

² It should be added that *TGA* alphabetism can also be described by the LLL descriptor, because its source phrase is sometimes worded as *Thermal Gravimetric Analysis*.

first word were taken to form two initials (one with a capital letter and the other with a small letter), lexical words were abbreviated in a regular way and grammatical words (*and* and *of*) were omitted. As it was explained earlier, the descriptors for this kind of alphabetisms contain a small letter <l> representing a lexeme abbreviated in such a manner. Those with first two graphemes, representing first two initials, are described with a capital and a small letter <l>, both underlined – Ll.

TYPE: <u>Ll</u>; <u>Ll</u>; <u>Ll</u> E	
ALPHABETISM	SOURCE PHRASES
QbD	Quality by Design
PIGF	Placental Growth Factor
PhRMA	Pharmaceutical Research <i>and</i> Manufacturers of America

5.2.5. Use of hyphens and slant lines in alphabetisms

Hyphens and slant lines in alphabetisms are also rare. There are only few examples with the mentioned diacritic signs. However, they can be divided into several subgroups according to their formation. In the first subgroup there are alphabetisms which retained a hyphen or a slant line in the same position as it was used in the source phrase, and in the second are those in which some hyphens or slant lines from the source phrase were omitted (ellipsis), and some new one sin alphabetisms were added. For this reason we introduced *addition* as a term for this orthographic change.

TYPE: L-LL; L-LL E, A	
ALPHABETISM	SOURCE PHRASES
LC-MS	Liquid Chromatography-Mass Spectrometry
GC-MS	Gas Chromatography-Mass Spectrometry
RP-HPLC	Reversed-Phase High-Performance Liquid Chromatography

Another subgroup reveals a possibility of using both slant lines and small letters in abbreviating a compound, as well as omitting the hyphens and grammatical words used in source phrases.

TYPE: L/LL; I/I/ E, A	
ALPHABETISM	SOURCE PHRASES
GC/MS	G as C hromatography/ M ass S pectrometry
s/o/w	s olid-in- o il-in- w ater
w/o/w	w ater-in- o il-in- w ater

5.2.6. Use of numerals in alphabetisms

So far we have noted various ways of alphabetism formation in medical terminology, and yet, another infrequent modality of formation justifies the necessity for a more detailed orthographic analysis. Alphabetisms with numerals, which make this small subgroup, are subdivided into two groups. The first group (*N-LL*) refers to those formed by taking initials of every element of the source phrase and transferring a diacritic sign and a numeral, e.g. *HSV-1* < *Herpes Simplex Virus-1*.

The second group of alphabetisms refers to those formed by taking initials for each lexical element of the source phrase, omitting some lexemes (ellipsis), converting lexemes (conversion) into numerals, and adding diacritic signs (addition) otherwise not found in source phrases.

TYPE: N-LL E, A, C	
ALPHABETISM	SOURCE PHRASES
LD50	<i>mean</i> L ethal D ose
2D-NMR	<i>two</i> - D imensional N uclear M agnetic R esonance

5.3. Acronyms in narrower sense

Acronyms in our research are not numerous, but still, their formational patterns, when compared to those of alphabetisms, give us enough evidence for a systematic classification of these non-morphemic word-formation types in English medical terminology. The concept of acronyms has been clarified many times before. For our purposes, we shall refer to the concepts of acronyms found in works of Fandrych (2008a: 72) and Cannon (1989: 108). Acronyms, according to Fandrych, are formed from the initial letters of phrases with omission of function words and represent words. They are intentionally formed and are homonymous with the existing words. Sometimes they can even incorporate numbers and symbols. In Cannon's work we find that acronyms come from a source of at least three constituents. Furthermore, Fandrych (2008b: 111) states that in some exceptions not all the initials

of source phrases are used in formation of acronyms and that occasionally, additional letters or syllables are used, or even the ordering of the initials can be changed.

On the basis of these concepts we classified the acronyms into two broad categories: those in narrower and broader sense. As with the alphabetisms in narrower sense, the acronyms in this sense are formed of initials taken from every word in a phrase. The descriptor for this kind of acronyms is again *LLL*.

TYPE: LLL	
ACRONYM	SOURCE PHRASES
END	E arly N eonatal D eath
FID	F lame I onization D etector
HAPO	H yperglycemia A dverse P regnancy O utcome
SMILES	S implified M olecular I nput L ine E ntry S ystem

The next point concerns the possibility of taking initials from function words as well. This is the case of *GRAS* in which the grapheme <a> from *as* was also used (<*Generally Regarded As Safe*>).

5.3.1. Acronyms in broader sense

In this subgroup of acronyms, we find different ways of their formation. They can be formed by taking either an initial or a final letter of a source phrase constituent, by taking initials of each compound constituent, by omitting a lexical or grammatical word from a phrase (ellipsis), using initials of affixes and combining forms, by changing the order of initials to that of a source phrase (metathesis) or using groups of graphemes and syllables.

The first example for this subgroup would be an acronym which is formed by both initials and final letters of a source phrase. In *NOESY*, which by its pronunciation and partly by its orthography reminds us of the adjective ‘noisy’, first three initials refer to first three constituents while the last two refer to an initial and a final letter of the last constituent (< *N*uclear *O*verhauser *E*ffect *S*pectroscop*Y*>).

The example of *DIAP* represents the possibility of using both initials of compound constituents and other lexemes in the formation of acronyms. Thus we have three initials from a compound and one from a free root morpheme, i.e. *DIAP* < *D*rug-*I*n-*A*dhesive *P*atch>.

5.3.2. Ellipsis

Ellipsis can be of two kinds: either a grammatical word or both lexical and grammatical are omitted from acronyms. In *FRAP* a grammatical word (*of*) was omitted and in *HELLP* a grammatical word (*and*) and a plural form of a lexical word (*enzymes*) were omitted.

TYPE: LLL E	
ACRONYM	SOURCE PHRASES
FRAP	F erric R educing A bility <i>of</i> P lasma
HELLP	H emolysis E levated L iver <i>enzymes and</i> L ow P latelets

5.3.3. Affixes

Acronyms with a combination of initials referring to lexical morphemes and affixes in source phrases are classified in one group only – the group of acronyms with only an initial for an affix and/or an initial for a combining form. As with the abbreviated affixes in alphabetisms (see 3.2.3), a similar situation is found in the class of acronyms, although with far less examples. This similarity is seen in the possibility of abbreviating both affixes and combining forms in acronyms. In the case of *PLL* and *PPL* for acronyms, there is only one affix – *anti-*, and several combining forms, i.e. *gamma-*, *immuno-* and *amino-*.

TYPE: PLL, PPL	
ACRONYM	SOURCE PHRASES
LASPP	L iquid A nti S olvent P recipitation P rocess
ELISA	E nzyme- L inked I mmuno S orbent A ssay
GABA	G amma- A mino B utryc A cid

The above examples give evidence of some other formational characteristics of acronyms as well. Along with the initials of affixes and combining forms used in their formation, there are also those which represent the elements of compounds, e.g. *Enzyme-Linked* > *ELISA* or *Gamma-AminoButryc Acid* > *GABA*.

5.3.4. Metathesis

Metathesis is found in only one acronym of our corpus. In *EBGO*, which was abbreviated from the source phrase *European Board of Obstetrics and Gynecology*, the order of two final initials was modified. Thus, instead of **EBOG* the resultant acronym is *EBGO*.

TYPE: LLL E, M		
ACRONYM	metathesis	SOURCE PHRASE
EBGO		E uropean B oard <i>of</i> O bstetrics <i>and</i> G ynecology

Along with the metathesis, *EBGO* underwent one more modification, which is the ellipsis of grammatical words *of* and *and*.

Finally, there is one more point we would like to touch upon in classification and description of acronyms. It is the process of abbreviating whole syllables in a resultant acronym.

5.3.5. Use of syllables in acronyms

There are only three examples of acronyms with abbreviated syllables in our corpus. They can be classified into three subcategories. The first subcategory refers to an acronym made of a syllable and initials for the initial and final graphemes. Such is the case of *TOCSY* in which the syllable *to* from *total* was abbreviated together with the initial graphemes <C>, <S> and the final grapheme <Y>. The descriptor used for this category of acronyms is *SLL*.

TYPE: SLL	
ACRONYM	SOURCE PHRASES
TOCSY	T Otal C orrelation S pectroscop Y

The second subcategory refers to an acronym in which, together with previously mentioned characteristics, the ellipsis of a grammatical word is used. In *OBSQID*, the syllable *obs/* from *obstetrical* is abbreviated, along with the initials <Q>, <I>, <D>. The grammatical word *and* was omitted.

TYPE: SLL E	
ACRONYM	SOURCE PHRASES
OBSQID	O BStetrical Q uality I ndicators <i>and</i> D ata

The last third subcategory deals with an acronym in which more syllables were abbreviated and both lexical and grammatical words were omitted. In *PATRICIA*, the syllable *pa/* from the compound *papilloma-virus*, the syllable *tri/* from *trial*, the grammatical word *against* and the lexical word *young* were omitted. Interestingly, this acronym exemplifies a possibility of taking an initial grapheme from a grammatical word as well (<i> from *in*). This subcategory is described with the *SSL* descriptor.

TYPE: SSL E	
ACRONYM	SOURCE PHRASES
PATRICIA	PA pilloma-virus TRI al <i>against</i> C ancer I n <i>young</i> A dults

5.4. Hybrid forms

The classification of hybrid forms, i.e. forms made by combining alphabetisms and acronyms, is also divided according to two criteria, narrower and broader sense. The resultant abbreviated forms are partially pronounced as alphabetisms and partially as acronyms.

5.4.1. Hybrids in narrower sense

Those belonging to the group classified according to the criterion of narrower sense (*LLL*) are formed by abbreviating initials of components from source phrases and are partially pronounced as acronyms. Our examples show that an acronym can either be in the initial or the final position of an abbreviation.³

TYPE: LLL		
HYBRID FORMS		SOURCE PHRASES
VEGF	[βεδZ∇εφ]	V ascular E ndothelial G rowth F actor
PPROM	[∇πι:πρΟμ]	P reterm P remature R upture O f ³ M embranes

5.4.2. Hybrids in broader sense

The hybrids belonging to the subgroup of abbreviations formed according to the criterion of broader sense, can be divided into groups with changes described by the following descriptors: *LLL E*; *PLL*; *PLL A*; *PPL*; *LL*; *LLL E, A, M*; *L-LW*. There are abbreviations formed by omitting some of the elements from a source phrase, those formed by abbreviating affixes or combining forms, those having adopted the first

³ As in the previous example of the acronym *PATRICIA*, the hybrid form *PPROM* exemplifies a possibility of taking an initial grapheme from a grammatical word too.

two initial graphemes (both a capital and a small letter) from a source phrase element, hybrids with the changed position of initials and with elliptical form, when compared to the order of initials in source phrases, and those with added initials. The last descriptor of *L-LW* describes a special and rare kind of hybrid forms in which a whole lexeme was transferred to the abbreviation.

In the group of *LLL E*, abbreviations are formed with the ellipsis of grammatical words in source phrases (*for, of, and, on, the*) and a combination of alphabetisms and acronyms. There can be one or even more initials in the part of alphabetisms.

TYPE: LLL E		
HYBRID FORMS		SOURCE PHRASES
IARC	[αI∇α:κ]	International Agency <i>for</i> Research <i>of</i> Cancer
CPCSEA	[σI:πI:σI:∇σI:]	Committee <i>for the</i> Purpose <i>of</i> Control <i>and</i> Supervision <i>of</i> Experiments <i>on</i> Animals

In the groups of *PLL* and *PPL*, abbreviations are formed with the initials for prefixes or combining forms (*thio-, ultra-, non-, anti-*) which form the part of an alphabetism in a hybrid, with initials for compounds, with a simultaneous ellipsis and addition of a diacritic sign (a hyphen and a slant line). The abbreviation for *Nonsteroidal Anti-Inflammatory Drug* can have a variation as well, but then, it will be classified to a different subgroup of hybrid forms, namely to *PPL*, as it has more than one affix abbreviated. In the group of *PLI E, A*, hybrids are made by abbreviating the initials of a prefix, by abbreviating first two or any other graphemes of a lexeme from a source phrase, and by omitting and adding a diacritic sign (omission of a hyphen and addition of a slant line).

TYPE: PLL; PPL; PLI E, A		
HYBRID FORMS		SOURCE PHRASES
NAID	[∇ενεIδ]	Nonsteroidal Anti-Inflammatory Drug
TBARS	[∇τI:βα:ζ]	ThioBarbituric Acid Reactive Substances
NSAID	[∇εν∇εσ∇εIδ]	NonSteroidal Anti-Inflammatory Drug
UV/VIS	[∇φυ:∇τωI:∇ωIζ]	UltraViolet-VIvisible Spectroscopy

A different case of abbreviating more than one grapheme from a lexeme is seen in *MMcC* hybrid, which was abbreviated from the phrase *Minimal MiCrobicidal Concentration* and is pronounced as [∇εμ%μ{κ∇σI:}. Its difference is understood in the way graphemes were abbreviated, i.e. the first and the third grapheme from ‘mi-

crobicidal' were abbreviated and used to make a morpheme *Mc* (< *Mac*), used in formation of surnames. Due to the resultant combination of graphemes, which together with the following initial <C> make the acronym *McC*, the hybrid is described by the descriptor *LLL*.

Metathesis is found in only one hybrid form. In *E-EBGO* [$\forall t: \forall \varepsilon \beta \gamma \equiv Y$], which was abbreviated from the source phrase *Extended European Board of Obstetrics and Gynecology*, the order of two final initials, <O> and <G>, was changed (the same can be seen in the acronym *EBGO*, see 5.3.4.). Along with the metathesis, *EBGO* underwent some additional modifications, and those were the ellipsis of grammatical words *of* and *and*, and the addition of a hyphen in the hybrid form of the abbreviation.

The last is the case of a different hybrid form, different from those composed of alphabethisms and acronyms. It is the hybrid composed of the alphabethism *EGF* and a word *dextran*, joined by a hyphen (*EGF-dextran* < *Epidermal Growth Factor-dextran*). The reason for such a formation is not evident from the comparison with other examples of word formation in our corpus. Our only explanation for this kind of word form is that in this way it can be easily isolated from a similar one, i.e. *EGF*. This hybrid form is described by the descriptor *L-LW*⁴.

5.5. Classification of Croatian medical alphabethisms and acronyms

Although the classification of Croatian medical alphabethisms and acronyms is not the aim of this research, it seemed necessary to see if our concept of classification in the formation of alphabethisms and acronyms can be applied to the word-formation classification of Croatian medical abbreviations. The material which has been assembled from the available sources gives us considerable evidence that the descriptors can also be applied to its classification.

The *LLL* descriptor classifies those alphabethisms (in narrower sense) formed of initials written with capital letters and taken from every single element (lexemes) in source phrases, such as: *JINT* < *Jedinica Intenzivne Neonatalne Terapije*, 'intensive neonatal therapy unit'; *JINNJ* < *Jedinica Intenzivne Neonatalne Njege*, 'intensive neonatal care unit'; *INPT* < *Izrazito Niska Porodna Težina*, 'extremely low birth weight'; *VNPT* < *Vrlo Niska Porodna Težina*, 'very low birth weight'; *RNM* < *Rani*

⁴ A similar hybrid form to the formational characteristics of *EGF-dextran*, is a neologism which has recently been coined and is periodically used in Croatian media (either in its written or pronounced form). This is the case of *PPVRH Čačić* (< *Prvi Potpredsjednik Vlade Republike Hrvatske* /Radimir/ Čačić; 'the first Vice-premier of the Croatian Government /Radimir/ Čačić'). The neologism was formed from the alphabethism *PP*, the acronym *VRH* and with the addition of the proper noun *Čačić*.

Neonatalni Mortalitet, 'early neonatal mortality'; *NU* < *Neonatalna Ustanova*, 'neonatal institution'; *MKB* < *Međunarodna Klasifikacija Bolesti*, 'international classification of diseases'; *PT* < *Porodna Težina*, 'birth weight'; *KNM* < *Kasni Neonatalni Mortalitet*, 'late neonatal mortality'; *CIGN* < *Cervikalna Intraepitelna Glandularna Neoplazija*. The *PLL* and *PPL* descriptors (alphabetisms in broader sense) can be applied to those with initials representing abbreviated prefixes or combining forms, e.g. *PNU* < *PeriNatalno Umrli*, 'perinatally dead'; *NSAR* < *NeStereoidni AntiReumatik*, 'nonsteroidal anti-inflammatory drug'⁵, *MR* < *MrtvoRođeni*, 'born dead'. There is also an example of ellipsis in the source phrase in which grammatical words (*do, iz*) were omitted. *MOB* < *Mortalitet do Otpusta iz Bolnice*, 'mortality before being released from hospitalization' is described by the *LLL E* descriptor (acronyms in broader sense). The *PLL* descriptor is also applied for the acronym *TIVA* which was formed from *Totalna IntraVenska Anestezija*, i.e. 'total intravenous anaesthesia'.

6. Classification of adaptation of English medical abbreviations to the Croatian language.

Similar cases of neologism formation in Croatian medical terminology, based on English non-morphemic word-formation models, and different ways of adaptation of English medical abbreviations to Croatian, will be dealt with in the following passage.

The corpus of abbreviations and its adaptation to Croatian medical terminology will partly be classified according to Filipović's classification of orthography adaptation. Filipović's approach offers four ways of orthography adaptation: a) according to the pronunciation of a model lexeme, b) according to its original orthography; c) according to the combination of its pronunciation and orthography, and d) according to an intermediary language (Filipović 1990: 28-29). However, as we are dealing here with morphologically different part of the English lexicon, this classification will be slightly modified. When foreign abbreviations are being adapted to a different language system, their adaptation on the orthographic level is also simultaneously conditioned by their pronunciation. Pronunciation can be of three kinds, which means that they can be pronounced as models, they can be pronounced as regular abbreviations from the receiving language, or there can be a combination of both English and Croatian pronunciation.

With regard to the mentioned peculiarities, we believe that those different kinds of pronunciation make a very explicit reason for the supplement of the principles set out

⁵ Interestingly, according to its classification, the English NSAID belongs to the same category described by *PPL*, but due to its form it is not an alphabetism but a hybrid form.

for the orthographic level in adaptation of borrowings. We believe that their adaptation can be better described by different degrees of substitution (1st, 2nd, and 3rd) on the orthographic level, i.e. zero, partial/compromise, and complete adaptation on the orthographic level. The substitution or adaptation on the orthographic level is tentatively named *transgraphemization*, in accordance with other terms for different linguistic levels, e.g. transphonemization, transmorphemization. *Zero orthographic change* involves the adaptation of original abbreviations, both with their English orthographic and pronouncing forms, e.g. *MR*, *FM*, *NMR*. *Partial or compromise adaptation* refers to those adapted with English orthography and full or partial Croatian pronunciation, e.g. *2D-NMR* [dvadeenemar], or *FRAP* [frap]. *Complete adaptation* on the orthographic level refers to those abbreviations which adapted the English orthography but are pronounced as ordinary Croatian abbreviations, e.g. *ANN*, *CTG*, *CDDS*, *ELISA*. As this theoretical explanation needs more extensive research to be fully justified, we take it as an experimental approach for the corpus analysed in this work. Our next research studies of other professional terminology fields will try to determine fully all the necessary points in that part of the theoretical framework. The following table summarizes the adaptation degrees on the orthographic level.

ORTHOGRAPHIC LEVEL			
substitution	transgraphemization	orthography	pronunciation
a) first degree	a) zero	English	English
b) second degree	b) partial/compromise	English	English/Croatian
c) third degree	c) full	English	Croatian

6.1. Alphabethisms

The great majority of alphabethisms in our corpus is completely adapted, i.e. with the English orthography and the Croatian pronunciation, e.g. *BCS*, *DNA*, *DTA*, *ECT*. The simplest cases of such adaptation are those alphabethisms formed from the initial letters of the Latin lexemes in source phrases, e.g. *HPV* < *Human Papilloma Virus*, *FM* < *Fetal Mortality*, *PNM* < *PeriNatal Mortality*. The rest of alphabethisms is rarely adapted according to the zero and the partial degree of adaptation. Sometimes, as is the case with *BBB* or *FM* (either [‘βɪ:’βɪ:’βɪ:] or [‘βɛ’βɛ’βɛ], and [‘ɛφ’ɛμ]), alphabethisms can have variational forms, i.e. they can be adapted according to the zero adaptation, partial/compromise or complete adaptation. Due to employment of the language economy principle in everyday language practice, some English alphabethisms, when adapted to Croatian, are pronounced as acronyms, and therefore make a special group of so-called *pseudoacronyms*, such as *ASA* [ασα], *FIA* [φiα], *FID* [φiδ], *END* [ɛνδ], *MEM* [μɛμ], *LOD* [λoδ], *ISFIF* [‘ɪσφiφ], etc.

They are labelled as pseudoacronyms because they are not pronounced as acronyms in English, but as alphabethisms.

English alphabethisms are rarely translated in Croatian, both source-phrase elements and alphabethisms correspondingly, e.g. *VLBW* < *Very Low Birth Weight*, i.e. *VNPT* < *Vrlo Niska Porodna Težina*; *ELBW* < *Extremely Low Birth Weight*, i.e. *INPT* < *Izrazito Niska Porodna Težina*, etc. Even more infrequent are those alphabethisms with a combination of English and Croatian orthography, i.e. with the adapted initials of English elements from the source phrase and the initials of Croatian translated elements, e.g. in English we have *COPD* for *Chronic Obstructive Pulmonary Disease*, and in Croatian – *COPB* [‘ko’pe’βε] with *OPB* for *Obstruktivna Pulmonalna Bolest*; *MOF* for *MultiOrganic Failure* in English, while *MOD* for *MultiOrganska Disfunkcija* in Croatian.

6.2. Acronyms

The majority of acronyms in our corpus is completely adapted, i.e. with English orthography and Croatian pronunciation, e.g. *POP* [ποπ], *SEM* [σεμ], *ELISA* [e’lisa]. Partially adapted are those with English orthography and full or partial Croatian pronunciation, e. g. *PATRICIA* [πα’τριχία], *HAPO* [‘ηαπο], *HETCOR* [‘ηετκΞ], *GRAS* [‘γρασ]. Acronyms adapted by the zero orthographic change, such as *TOCSY* [‘τοκσι], and *SMILES* [‘σμιλς] are infrequent.

6.3. Hybrid forms

The adaptation of hybrid forms can also be divided according to three degrees of transgraphemization. As these forms are made by combining alphabethisms and acronyms, with initials being read as regular Croatian letters, most of them are adapted by partial or full transgraphemization. *NAID* [εν’ειδ], *NSAID* [ενεσ’ειδ], *UVVIS* [υθε’ωισ], *MMcC* [εμμεκ’χε]/[εμμεκ’σι:] are hybrids partially adapted, and *VEGF* [βεγ’εφ], *PPROM* [πε’προμ], *E-EBGO* [ε’εβγο] are examples of the full adaptation.

Conclusion

For the purposes of the research, alphabethisms, acronyms and hybrid forms in English medical terminology were classified according to two criteria: broader and narrower sense. The narrower sense refers to those formed according to the orthographic norms. The broader sense is understood as the ways and processes of the formation, more or less different from the orthographic norms. For a better and

transparent description and classification of terms, a set of so-called descriptors was introduced. The descriptors describe the elements of abbreviations in both narrower and broader sense. Generally speaking, initials of descriptors are of two kinds – those representing capital and those representing small letters, i.e. *L* and *l*, respectively. All other initials describe the final realizations of abbreviations with different orthographic or morphological characteristics (*P* for affixes, *N* for numerals, *S* for syllables, and *W* for a whole word; *LL* stands for the first two or any other graphemes of one lexeme, *E* for ellipsis, *C* for conversion, *M* for metathesis, and *A* for addition of a word or a diacritic sign).

The alphabetisms in narrower sense are the most abundant in this research and are formed of initials written with capital letters and taken from every single element (lexemes) of source phrases. For those formed in broader sense, various formational differences were analysed and classified accordingly, such as: initials for final graphemes, compounds, affixes, grammatical and lexical words, as well as different orthographic changes, such as ellipsis, conversion, metathesis and addition. Among the most notable feature is the ellipsis of either grammatical or lexical words (or sometimes both) and the use of blankness between initials in alphabetisms. Ellipsis can be of three kinds: either a lexical or grammatical word is omitted, or both lexical and grammatical words are omitted. Alphabetisms with blankness between initials are of two kinds: those with the conditioned and those with the unconditioned blankness between initials. Alphabetisms with initials referring to affixes (prefixes) are of two kinds: the first with only one initial for an affix and the second with more than one initial for affixes. Small letters in medical alphabetisms are rare. They can be used for abbreviated grammatical words, or for the second element of the first two graphemes in words. Hyphens and slant lines in alphabetisms are also rare. Alphabetisms with hyphens and slant lines are divided into alphabetisms which retained a hyphen or a slant line in the same position as it was in the source phrase, and those in which some hyphens or slant lines from the source phrase were omitted and new ones in alphabetisms were added. Alphabetisms with numerals are divided into two groups: those formed by taking initials of every element of the source phrase and by transferring a diacritic sign and a numeral, and those formed by taking initials for each lexical element of the source phrase, omitting some lexemes, converting lexemes into numerals, and adding diacritic signs not found in source phrases.

The acronyms in narrower sense are formed of initials taken from every word in a phrase. Acronyms in broader sense can be formed by taking either an initial or a final letter of a source phrase constituent, by taking initials of each compound con-

stituent, by omitting a lexical or grammatical word, by changing the order of initials to that of a source phrase or using groups of graphemes and syllables. Ellipsis can be of two kinds: either a grammatical word or both lexical and grammatical are omitted from acronyms. Acronyms with a combination of initials referring to lexical morphemes and affixes belong to one group – the group with only an initial for an affix and/or an initial for a combining form. Metathesis is found in only one acronym. There are three acronyms with abbreviated syllables classified into three sub-categories: one made of a syllable and initials for the initial and final graphemes, one in which the ellipsis of a grammatical word is used, and one in which more syllables were abbreviated and both lexical and grammatical words were omitted.

The classification of hybrid forms is also divided according to the criteria of narrower and broader sense. The resultant forms are partially pronounced as alphabetsisms and partially as acronyms. The hybrids in narrower sense are formed by abbreviating initials of source phrase components and are partially pronounced as acronyms. The hybrids in broader sense are formed by omission of some elements, by abbreviating affixes/combining forms, by adopting the first two initial graphemes (both a capital and a small letter), by the changed position of initials and by addition of initials.

In the analysis of Croatian medical alphabetsisms and acronyms, the material assembled from the available sources gives considerable evidence that the descriptors can also be applied to their classification.

The corpus of abbreviations and its adaptation to Croatian medical terminology was described by different degrees of substitution on the orthographic level (transgraphemization), i.e. zero, partial/compromise, and complete adaptation on the orthographic level. Original abbreviations, both with their English orthographic and pronouncing forms, are adapted by zero orthographic change. Those with English orthography and full or partial Croatian pronunciation are adapted by partial or compromise adaptation. Those with English orthography and pronounced as ordinary Croatian abbreviations are adapted by complete adaptation.

APPENDIX

ABB.	SOURCE PHRASE	DESCRIPTOR	ABB. TYPE	ABB. LENGTH	S.P. LENGTH	ORTH. CHANGE	DETAILS	SEM. FIELD
2D-NMR	two-Dimensional Nuclear Magnetic Resonance	NLL	Alph.	6	4	E, A	punct	2
AD	Alzheimer's Disease	LLL	Alph.	2	2			1
ANN	Artificial Neural Network	LLL	Alph.	3	3			3
API	Active Pharmaceutical Ingredient	LLL	Alph.	3	3			4
ASA	American Society of Anesthesiologists	LLL	Alph.	3	4	E	prep	5
ASRM	American Society for Reproductive Medicine	LLL	Alph.	4	5	E	prep	5
BBB	Blood-Brain Barrier	LLL	Alph.	3	2			1
BCS	Biopharmaceutical Classification System	LLL	Alph.	3	3			6
BSA	Bovine Serum Albumin	LLL	Alph.	3	3			7
C NMR	Carbon-13 Nuclear Magnetic Resonance	L LL	Alph.	4	4	E	punct, num	2
CDC	Centre for Disease Control and prevention	LLL	Alph.	3	6	E	prep, conj, N	5
CDDS	Colon targeted Drug Delivery Systems	LLL	Alph.	4	5	E	V	4
CDRI	Central Drug Research Institute	LLL	Alph.	4	4			5
CIMS	Chemical Ionisation Mass Spectrometry	LLL	Alph.	4	4			2
CMC	Critical Micellar Concentration	LLL	Alph.	3	3			1
CMG	Coat Mass Gain	LLL	Alph.	3	3			6
CMM	Critical Molecular Mass	LLL	Alph.	3	3			4
CNS	Central Nervous System	LLL	Alph.	3	3			8
CO	Cardiac Output	LLL	Alph.	2	2			9
COPD	Chronic Obstructive Pulmonary Disease	LLL	Alph.	4	4			1
CPCSEA	Committee for the Purpose of Control and Supervision of Experiments on Animals	LLL	Hybr.	6	12	E	prep x4, art, conj	5
CTG	Control Treatment Group	LLL	Alph.	3	3			2

ABB.	SOURCE PHRASE	DESCRIPTOR	ABB. TYPE	ABB. LENGTH	S.P. LENGTH	ORTH. CHANGE	DETAILS	SEM. FIELD
DE	Dissolution Efficiency	LLL	Alph.	2	2			6
DIAP	Drug-In-Adhesive Patch	LLL	Acr.	4	2			4
DNA	DeoxyriboNucleic Acid	PPL	Alph.	3	2	E	affix	7
DP	Dispersion Polymerization	LLL	Alph.	2	2			4
DSC	Differential Scanning Calorimetry	LLL	Alph.	3	3			2
DST	Department of Science and Technology	LLL	Alph.	3	5	E	prep, conj	5
DT	Disintegration Time	LLL	Alph.	2	2			6
DTA	Differential Thermal Analysis	LLL	Alph.	3	3			2
EAC	Ehrlich's Ascites Carcinoma	LLL	Alph.	3	3			1
EAGO	European Association of Gynecology and Obstetrics	LLL	Alph.	4	6	E	prep, conj	5
EAPM	European Association of Perinatal Medicine	LLL	Alph.	4	5	E	prep	5
EAS	External Anal Sphincter	LLL	Alph.	3	3			8
EBGO	European Board of Obstetrics and Gynecology	LLL	Acr.	4	6	E, M	prep, conj	5
ECT	ElectroChemoTherapy	PPL	Alph.	3	1			2
EE	Encapsulation Efficiency	LLL	Alph.	2	2			6
E-EBGO	Extended European Board of Obstetrics and Gynecology	LLL	Hybr.	6	7	E, M	prep, conj	5
EFC	Emulsifier-Free emulsion Copolymerization	LLL	Alph.	3	3	E	N	4
EGF	Epidermal Growth Factor	LLL	Alph.	3	3			6
EGF-dextran	Epidermal Growth Factor-dextran	LL-W	Hybr.	5	3			6
ELBW	Extremely Low Birth Weight	LLL	Alph.	4	4			6
ELISA	Enzyme-Linked ImmunoSorbent Assay	PPL	Acr.	5	3	E	punct	2
END	Early Neonatal Death	LLL	Alph.	3	3			6
ENGBSS	Early Neonatal Group B Streptococcal Septicemia	LLL	Alph.	6	6			1
EOC	Epithelial Ovarian Cancer	LLL	Alph.	3	3			1
EP	Emulsion Polymerization	LLL	Alph.	2	2			4
EPR	Electron Paramagnetic Resonance	LLL	Alph.	3	3			2

ABB.	SOURCE PHRASE	DESCRIPTOR	ABB. TYPE	ABB. LENGTH	S.P. LENGTH	ORTH. CHANGE	DETAILS	SEM. FIELD
FAB	Fast Atom Bombardment	LLL	Acr.	3	3			2
FBS	Foetal Bovine Serum	LLL	Alph.	3	3			4
FD	Fetal Death	LLL	Alph.	2	2			6
FDA	Food and Drug Administration	LLL	Alph.	3	4	E	conj	5
FDDS	Floating Drug Delivery Systems	LLL	Alph.	4	4			4
FI	Fecal Incontinence	LLL	Alph.	2	2			1
FIA	Flow Injection Analysis	LLL	Alph.	3	3			2
FID	Flame Ionization Detector	LLL	Acr.	3	3			2
FM	Fetal Mortality	LLL	Alph.	2	2			6
FRAP	Ferric Reducing Ability of Plasma	LLL	Acr.	4	5	E	prep	6
FT NMR	Fourier Transform Nuclear Magnetic Resonance	L LL	Alph.	5	5			2
FTIR	Fourier Transform InfraRed	PLL	Alph.	4	3			2
GABA	Gamma-AminoButyric Acid	PPL	Acr.	4	2			7
GC/MS	Gas Chromatography/Mass Spectrometry	L/LL	Alph.	5	5			2
GC-MS	Gas Chromatography-Mass Spectrometry	L-LL	Alph.	5	3			2
GI	Growth Inhibition	LLL	Alph.	2	2			2
GIT	GastroIntestinal Tract	PLL	Alph.	3	2			8
GPC	Gel Permeation Chromatography	LLL	Alph.	3	3			2
GRAS	Generally Regarded As Safe	LLL	Acr.	4	4			4
GRDDS	GastroRetentive Drug Delivery Systems	PLL	Alph.	5	4			4
GSE	Grapefruit Seed Extract	LLL	Alph.	3	3			4
H NMR	Hydrogen-1 Nuclear Magnetic Resonance	L LL	Alph.	5	4	E	punct, num	2
HAPO	Hyperglycemia Adverse Pregnancy Outcome	LLL	Acr.	4	4			6
HBSS	Hank's Balanced Salt Solution	LLL	Alph.	4	4			4
HELLP	Hemolysis Elevated Liver enzymes and Low Platelets	LLL	Acr.	5	7	E	N conj	7

ABB.	SOURCE PHRASE	DESCRIPTOR	ABB. TYPE	ABB. LENGTH	S.P. LENGTH	ORTH. CHANGE	DETAILS	SEM. FIELD
HMBC	Homonuclear Multiple Bond Coherence	LLL	Alph.	4	4			6
HMBC	Heteronuclear Multiple-Bond Correlation	LLL	Alph.	4	3			2
HPLC	a) High-Performance Liquid Chromatography	LLL	Alph.	4	3	E	punct	2
	b) High Performance Liquid Chromatography	LLL	Alph.	4	4			2
HPSAM	H-Point Standard Additions Method	LLL	Alph.	5	4	E	punct	2
HPTLC	a) High Performance Thin Layer Chromatography	LLL	Alph.	5	5			2
	b) High-Performance Thin-Layer Chromatographic	LLL	Alph.	5	3	E	punct	2
HPV	Human Papilloma Virus	LLL	Alph.	3	3			1
HSM	Hot Stage Microscopy	LLL	Alph.	3	3			2
HSQC	Heteronuclear Single Quantum Coherence	LLL	Alph.	4	4			6
HSV-1	Herpes Simplex Virus-1	N-LL	Alph.	5	3			1
IADPSG	International Association of Diabetes and Pregnancy Study Group	LLL	Alph.	6	8	E	prep, conj	5
IAEC	Institutional Animal Ethics Committee	LLL	Alph.	4	4			5
IARC	International Agency for Research of Cancer	LLL	Hybr.	4	6	E	prep, prep	5
IAS	Internal Anal Sphincter	LLL	Alph.	3	3			8
IBS	Irritable Bowel Syndrome	LLL	Alph.	3	3			1
ICMR	Indian Council of Medical Research	LLL	Alph.	4	5	E	prep	5
IM	Infant Mortality	LLL	Alph.	2	2			6
IS	Internal Standard	LLL	Alph.	2	2			6
ISFIF	<i>In Situ</i> Forming Intra gastric Formulations	LLL	Acr.	5	5			4
IST	Isothermal Stress Testing	LLL	Alph.	3	3			2
IUGR	IntraUterine Growth Restriction	PLL	Alph.	4	3			1
IUS	Internal Urethral Sphincter	LLL	Alph.	3	3			8

ABB.	SOURCE PHRASE	DESCRIPTOR	ABB. TYPE	ABB. LENGTH	S.P. LENGTH	ORTH. CHANGE	DETAILS	SEM. FIELD
JEV	Japanese Encephalitis Virus	LLL	Alph.	3	3			1
LASPP	Liquid AntiSolvent Precipitation Process	PLL	Acr.	5	4			4
LBD	Loose Bulk Density	LLL	Alph.	3	3			6
LC-MS	Liquid chromatography–mass spectrometry	L-LL	Alph.	5	3			2
LD50	mean lethal dose	NLL	Alph.	4	3	C	num > adj	6
LGA	Large-for-Gestational-Age	LLL	Alph.	3	1	E		6
LMPSA	Low Melting Point Sugar Alcohol	LLL	Alph.	5	5			4
LMS	Low-Molecular-Mass Salt	LLL	Alph.	3	2	E	V/N	4
LOD	Limits Of Detection	LLL	Alph.	3	3			6
LOQ	Limits Of Quantification	LLL	Alph.	3	3			6
MAP	Mitogen-Activated Protein	LLL	Acr.	3	2	E	punct	7
MDT	Mean Dissolution Time	LLL	Alph.	3	3			6
MEM	Minimum Essential Medium	LLL	Acr.	3	3			4
MFH	Magnetic Fluid Hyperthermia	LLL	Alph.	3	3			2
MFPR	MultiFetal Pregnancy Reduction	PLL	Alph.	4	3			2
MIC	Minimal Inhibitory Concentration	LLL	Alph.	3	3			6
MLC	Micellar Liquid Chromatography	LLL	Alph.	3	3			2
MLRA	Multiple Linear Regression Analysis	LLL	Alph.	4	4			2
MMcC	Minimal MiCrobicidal Concentration	LLL	Hybr.	4	3			6
MNPCE	MicroNucleated PolyChromatic Erythrocyte	PPL	Alph.	5	3			2
MST	Mean Survival Time	LLL	Alph.	3	3			6
MVTR	Moisture Vapor Transmission Rate	LLL	Alph.	4	4			6
NAS	Net Analyte Signal	LLL	Alph.	3	3			2
NCRRT	National Centre for Radiation Research and Technology	LLL	Alph.	5	7	E	prep, conj	5
NFT	NeuroFibrillary Tangles	PLL	Alph.	3	2			1

ABB.	SOURCE PHRASE	DESCRIPTOR	ABB. TYPE	ABB. LENGTH	S.P. LENGTH	ORTH. CHANGE	DETAILS	SEM. FIELD
NMR	Nuclear Magnetic Resonance	LLL	Alph.	3	3			2
NNRTI	Non-Nucleoside Reverse Transcriptase Inhibitor	PLL	Alph.	5	4	E	punct	4
NOESY	Nuclear Overhauser Effect Spectroscopy	LLL	Acr.	5	4			2
NS	Nervous System	LLL	Alph.	2	2			8
NAID or NSAID	NonSteroidal Anti-Inflammatory Drug	PPL/PLL	Hybr.	5/4	3		punct	4
OBSQID	OBStetrical Quality Indicators and Data	SLL	Acr.	6	5	E	conj	6
OD	Optical Density	LLL	Alph.	2	2			6
ODT	Orally Disintegrating Tablet	LLL	Alph.	3	3			4
OND	Office of New Drugs	LLL	Alph.	3	4	E	prep	5
OPLS	Optimized Potentials for Liquid Simulations	LLL	Alph.	4	5	E	prep	3
PATRICIA	PApilloma-virus TRIAL against Cancer In young Adults	SSL	Acr.	8	7	E	N, prep, adj	2
PBS	a) Phosphate Buffered Saline	LLL	Alph.	3	3			4
	b) Phosphate Buffer Solution	LLL	Alph.	3	3			4
PCR	Principal Component Regression	LLL	Alph.	3	3			2
PCS	Photon Correlation Spectroscopy	LLL	Alph.	3	3			2
PE	PreEclampsia	PLL	Alph.	2	1			1
PFTC	Primary Fallopian Tube Cancer	LLL	Alph.	4	4			1
PhRMA	Pharmaceutical Research and Manufacturers of America	LLL	Alph.	5	6	E	conj, prep	5
PII	Primary Irritation Index	LLL	Alph.	3	3			6
PIGF	Placental Growth Factor	LLL	Alph.	4	3			6
PM	Physical Mixture	LLL	Alph.	2	2			4
PMAA	Partially Methylated Alditol Acetate	LLL	Alph.	4	4			4
PMN	PolyMorphoNuclear leukocyte	PPL	Alph.	3	2	E	noun	7
PNM	PeriNatal Mortality	PLL	Alph.	3	2			6
POP	Pelvic Organ Prolapse	LLL	Alph.	3	3			1
PP	Peyer's Patches	LLL	Alph.	2	2			4

ABB.	SOURCE PHRASE	DESCRIPTOR	ABB. TYPE	ABB. LENGTH	S.P. LENGTH	ORTH. CHANGE	DETAILS	SEM. FIELD
PPROM	Preterm Premature Rupture Of Membranes	LLL	Hybr.	5	5			1
PSA	Pressure-Sensitive Adhesive	LLL	Alph.	3	2			4
PSRC	Pharmaceutical Sciences Research Center	LLL	Alph.	4	4			5
PTG	Placebo Treatment Group	LLL	Alph.	3	3			2
PTLC	Preparative Thin-Layer Chromatography	LLL	Alph.	4	3	E	punct	2
QbD	Quality by Design	LLL	Alph.	3	3			6
QC	Quality Control	LLL	Alph.	2	2			6
QSAR	Quantitative Structure-Activity Relationship	LLL	Alph.	4	3	E	punct	3
QSPR	Quantitative Structure-Property Relationship	LLL	Alph.	4	3	E	punct	3
RF	Reference Formulation	LLL	Alph.	2	2			3
RI	Retention Indices	LLL	Alph.	2	2			3
RNA	RiboNucleic Acid	LLL	Alph.	3	2			7
ROS	Reactive Oxygen Species	LLL	Alph.	3	3			7
RP	Reservoir Patch	LLL	Alph.	2	2			4
RP-HPLC	Reversed-Phase High-Performance Liquid Chromatography	L-LL	Alph.	7	4	E, A	punct	2
RSLM	Reponse Surface Linear Modelling	LLL	Alph.	4	4			3
RTG	Reference Treatment Group	LLL	Alph.	3	3			2
s/o/w	solid-in-oil-in-water	l/l/l	Alph.	5	1	E	prep	4
SD	Solid Dispersion	LLL	Alph.	2	2			4
SDL	Spray Dried Lactose	LLL	Alph.	3	3			4
SEDDS	Self-Emulsifying Drug Delivery Systems	LLL	Acr.	5	4	E	punct	6
SEM	a) Scanning Electron Microscopy	LLL	Alph.	3	3			2
	b) Scanning Electron Microphotographs	LLL	Alph.	3	3			2
	c) Scanning Electron Micrographs	LLL	Alph.	3	3			2
SGA	Small-for-Gestational-Age	LLL	Alph.	3	1	E	prep	6

ABB.	SOURCE PHRASE	DESCRIPTOR	ABB. TYPE	ABB. LENGTH	S.P. LENGTH	ORTH. CHANGE	DETAILS	SEM. FIELD
SGF	Simulated Gastric Fluid	LLL	Alph.	3	3			4
SIF	Simulated Intestine Fluid	LLL	Acr.	3	3			4
SMD	Short Multifactorial Design	LLL	Alph.	3	3			3
SMILES	Simplified Molecular Input Line Entry System	LLL	Acr.	6	6			3
SR	Sustained Release	LLL	Alph.	2	2			2
SRC	Syracuse Research Corporation	LLL	Alph.	3	3			5
STP	Stationary Time of upper Punch displacement	LLL	Alph.	3	6	E	prep, adj, N	2
SUI	Stress Urinary Incontinence	LLL	Alph.	3	3			1
SVR	Systemic Vascular Resistance	LLL	Alph.	3	3			9
TAP	Total Antioxidant Power	LLL	Alph.	3	3			3
TAS	a) Total Antioxidant Status	LLL	Alph.	3	3			3
	b) Total Antioxidative Status	LLL	Alph.	3	3			3
TBARS	ThioBarbituric Acid Reactive Substances	LLL	Hybr.	5	4			3
TBD	Tapped Bulk Density	LLL	Alph.	3	3			6
TDDS	Transdermal Drug Delivery System	LLL	Alph.	4	4			6
TEM	Transmission Electron Microscopy	LLL	Alph.	3	3			2
TF	Test Formulation	LLL	Alph.	2	2			6
TFT	Total Floating Time	LLL	Alph.	3	3			3
TGA	ThermoGravimetric Analysis/ Thermal Gravimetric Analysis	PLL/ LLL	Alph.	3	2/3			3
TLC	Thin Layer Chromatography	LLL	Alph.	3	3			2
TOCSY	TOTal Correlation SpectroscopY	SLL	Acr.	5	3			2
TSH	Thyroid Stimulating Hormone	LLL	Alph.	3	3			7
TTG	Test Treatment Group	LLL	Alph.	3	3			2
UCP	Urethral Closing Pressure	LLL	Alph.	3	3			3
UV/VIS	UltraViolet–VISible Spectroscopy	LL/L	Hybr.	6	2			2
VEGF	Vascular Endothelial Growth Factor	LLL	Hybr.	4	4			7
VLBW	Very Low Birth Weight	LLL	Alph.	4	4			6
VLDL	Very Low-Density Lipoprotein	LLL	Alph.	4	3			7

ABB.	SOURCE PHRASE	DESCRIPTOR	ABB. TYPE	ABB. LENGTH	S.P. LENGTH	ORTH. CHANGE	DETAILS	SEM. FIELD
w/o/w	water-in-oil-in-water	l/l/l	Alph.	5	1	E	prep	4
WGCM	Wet Granulation Compression Method	LLL	Alph.	4	4			2
WHO	World Health Organization	LLL	Alph.	3	3			5
XPD	X-ray Powder Diffraction	LLL	Alph.	3	3			2
XRD	a) X-Ray Diffractometry	LLL	Alph.	3	2			2
	b) X-Ray Diffraction	LLL	Alph.	3	2			2
XRPD	a) X-ray Powder Diffraction	LLL	Alph.	4	3			2
	b) X-Ray Powder Diffractometry	LLL	Alph.	4	3			2

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Ivo Fabijanić, Frane Malenica

Kratice u engleskome medicinskom nazivlju i njihova prilagodba hrvatskomu jeziku

SAŽETAK

U radu su provedene podjela i raščlamba kratica, akronima i hibridnih oblika na ograničenom materijalu engleskoga medicinskog nazivlja. Kratice i akronimi podijeljeni su prema dva načelima: užem i širem smislu, a njihove razlike u ortografskoj tvorbi opisane su nizom posebno predviđenih deskriptora. Takva mogućnost opisa, podjele i raščlambe primijenjena je na korpusu engleskog i hrvatskog medicinskog nazivlja. U raščlambi prilagodbe ortografije engleskih kratica predložena su tri stupnja podjele: nulta ortografska promjena, djelomična i potpuna prilagodba. Zamjena i prilagodba na ortografskoj razini naziva se transgrafemizacija.

Ključne riječi: engleski, kratice, akronimi, medicina, deskriptori, prilagodba, hrvatski, transgrafemizacija, nulta ortografska promjena, djelomična i potpuna prilagodba

Anamarija Gjurán-Coha*, Brigita Bosnar-Valković**

Lingvistička analiza medicinskoga diskursa

SAŽETAK

Moderno doba donosi mnogo novoga ne samo na području tehnike i tehnologija, već i u raznim drugim područjima. Neminovno, i jezik je podložan promjenama i inovacijama na svim jezičnim razinama pod utjecajem drugih jezika. Globalizacija kao proces obuhvaća i znanost i tehnologiju te izravno utječe na načine komuniciranja i komunikacijska sredstva. Jezici struke nisu pošteđeni utjecaja drugih jezika, već su podložni promjenama i inovacijama na svim razinama. Cilj je ovoga rada istražiti neke od specifičnosti medicinskoga diskursa koji se odnosi na medicinsko nazivlje i izražavanje, odnosno umijeće uporabe medicinskih jezičnih podataka u usmenom i pismenom priopćavanju. Temelj medicinskog jezika čine klasični jezici, latinski i grčki, no posljednja se dva desetljeća bilježi nezaustavljivi priljev anglizama u medicinsko nazivlje. U nedostatku odgovarajućeg hrvatskog naziva oni se prihvaćaju i ulaze u široku uporabu ne samo u govoru već i u pisanom tekstu. Nadalje, neujednačenost u medicinskom nazivlju vodi k nerazumljivosti sadržaja, njegovoj krivoj interpretaciji i nesporazumu. Široka uporaba istoznačnica također dovodi do nejasnoća. Primjena raznih skraćenica kojima se ne zna ni podrijetlo, a koje se koriste dijelom radi uštede vremena, a dijelom da se stanoviti izrazi učine nerazumljivim za bolesnike još je jedna od značajki medicinskog jezika. Bilježe se promjene na semantičkoj razini – proširenja (*face liting*) i suženja značenja (*bullying*), ali i na sintaktičkoj razini čestom uporabom imenice u funkciji pridjeva (*prostate antigen*).

Ključne riječi: jezična analiza, medicinski diskurs, medicinsko nazivlje, funkcionalni stilovi

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1. Uvod

Medicinski se jezik odnosi na medicinsko nazivlje i izražavanje, odnosno umijeće uporabe medicinskih jezičnih podataka u usmenom i pismenom priopćavanju. Radi se o književnom znanstvenom jeziku koji je usklađen s općom jezičnom normom, pri čemu je posebno samo medicinsko nazivlje (Frišić 1967-68: 131).

Pod "medicinskim jezikom" podrazumijevamo onaj specifični način izražavanja i sporazumijevanja kojim se liječnici (i drugi zdravstveni radnici) služe u svakodnevnom obavljanju liječničke prakse, a koji se primjenjuje i u medicinskoj publicistici. Taj jezik ima svoje određene značajke koje su vezane uz materiju kojom se liječnik bavi, a uvjetovane su i posebnim, specifičnim odnosom koji postoji između liječnika i pacijenta. Po tome se taj jezik bitno razlikuje od običnoga svakodnevnog govora i od jezika koji se primjenjuje u drugim naukama i profesijama. Medicinski se diskurs, stoga, ostvaruje kroz medicinske tekstove i usmenu komunikaciju između liječnika i pacijenta, ali i između samih liječnika.

Pod utjecajem drugih jezika i jakih globalizacijskih procesa svaki je jezik, pa tako i medicinski, podložan promjenama i inovacijama na svim jezičnim razinama. Temelj medicinskog jezika čine klasični jezici, latinski i grčki, no posljednja se dva desetljeća bilježi nezaustavljiv priljev anglizama u medicinsko nazivlje. Engleski jezik ne ostavlja trag samo na leksiku, već je prisutan i na svim jezičnim razinama.

U ovome ćemo radu istražiti lingvistička obilježja medicinskoga diskursa te promjene koje se u medicinskome jeziku bilježe posljednjih godina.

2. Medicinski jezik i funkcionalni stilovi

Jezik se ostvaruje kroz funkcionalne stilove koji se međusobno razlikuju kao što se razlikuju i sami jezici. Svaki funkcionalni stil ima svoje zakonitosti, a narušavanje zakonitosti u jednome stilu ne znači njihovo narušavanje u drugome stilu. Miješanje obilježja dvaju ili više stilova, odnosno stilskih razina, odaje nedovoljnu jezičnu izgrađenost autora. Medicinski tekstovi pripadaju znanstvenom funkcionalnom stilu ili publicističkom funkcionalnom stilu, ovisno o vrsti publikacije, a kada se radi o usmenoj komunikaciji između liječnika i pacijenta ili između samih liječnika i razgovornom funkcionalnom stilu.

2.1. Znanstveni funkcionalni stil

Svako nazivlje pa tako i ovo medicinske struke u prvome redu pripada znanstvenom funkcionalnom stilu. Znanost zanimaju pojedine činjenice u onoj mjeri u kojoj se na njima mogu utvrditi opće zakonitosti. Znanost dakle zanima učinkovitost novo-

ga znanja. Stoga su načelo objektivnosti (potpuna nepristranost pošiljatelja i primatelja poruke) i načelo apstraktnosti (zanemarivanje nebitnih obilježja sadržaja poruke) u skladu s temeljnim načelom znanosti, a to je načelo logičke organizacije sadržaja i izraza.

Pri stvaranju znanstvenog djela znanstvenik mora voditi računa o njegovu sadržaju, predočiti ga kao cjelinu, izdvojiti iz njega bitno i dati ga u logičkome slijedu. Pri tome sadržaj znanstvene poruke mora prilagoditi primatelju. Znanstveni je stil izrazito objektivan, a subjektivna se sredstva koriste samo tamo gdje su dopuštena, npr. u popularnim časopisima koji su namijenjeni širem čitateljstvu.

U znanstvenome stilu važnu ulogu imaju leksik i sintaksa, dok su fonologija i morfologija u drugome planu. Ovdje se radi o apstraktnoj komunikaciji koja je neosobna, a bitnu ulogu ima poruka, odnosno predmet govora. U takvoj se komunikaciji pojavljuju jezična sredstva koja će biti u skladu s porukom.

Znanstveni stil ima neka obilježja koja se u praksi sustavno krše o čemu će biti riječi u analizi korpusa. Jednoznačnost naziva, izbjegavanje sinonimije, kratkoća izražavanja, izbjegavanje stranih naziva neka su od obilježja znanstvenog funkcionalnog stila.

2.2. Publicistički funkcionalni stil

Publicistički funkcionalni stil obuhvaća dnevne novine, časopise i ostale tiskovine, ali i područje gledane i slušane informacije, odnosno radio i televiziju. Publicistički ili novinarski stil standardnog jezika stil je javnoga priopćavanja koji se ostvaruje u pisanome i govornome mediju.

Funkcije su novinarskih medija informiranje, propaganda, populariziranje, zabava, ali i edukacija. Poznato je da je utjecaj novinarskoga stila na općejezični standard mnogo veći od utjecaja znanstvenoga stila. Ako se neki naziv počinje pojavljivati u novinama, on će vjerojatno ubrzo biti općeprihvaćen i ući će u uporabu.

Funkcije tiskovnih medija zahtijevaju određenu uporabu kako neutralnih, tako i ekspresivnih jezičnih sredstava. Smisao jezičnoga sredstva nalazi se u tekstu, a izrečen je neposredno. Novinarski jezik treba biti neutralan, razumljiv, jednostavan, precizan i objektivan u iznošenju činjenica. U novinarskome stilu, kao i u ostalim stilovima, pojavljuju se ustaljeni izrazi koji obilježavaju taj stil, a nazivaju se žurnalizmima. Oni se pojavljuju u raznim područjima kao što su politika, ekonomija, sociologija i drugim disciplinama izvan novinarskoga stila te su se u njemu ustalili.

U novinarskom funkcionalnom stilu internacionalizmi i strane riječi česta su pojava. Njihova uporaba, međutim, izaziva brojne polemike jezikoslovaca. Treba li koristiti

takve riječi uvijek je aktualno pitanje, a načelni odgovor je: koristiti, no umjereno. Internacionalne su riječi nacionalne riječi (za razliku od stranih riječi i tuđica) koje su prisutne u svim profesionalnim područjima i zapravo su postale "činjenicom svakoga civiliziranoga nacionalnog jezika" (Silić 1997: 510). Te su riječi kroz povijest utvrdile svoja opća značenja i time se osposobile za uopćeno komuniciranje, ali su i postale činjenicom novinarskoga standarda (Silić 1997: 510).

Novinski se članci uvelike razlikuju ovisno o profilu novina u kojima su objavljeni. Potvrda toga je i naše istraživanje čiji korpus obuhvaća razne tiskovine od zdravstvenih priloga u dnevnim novinama, preko popularnih zdravstvenih tjednika do narodnih zdravstvenih listova namijenjenih široj populaciji. Dok su u dnevnim novinama prilozi pisani jednostavnim, razumljivim jezikom koristeći se mahom domaćim nazivima, u tjednicima je situacija nešto drugačija. Uglavnom se radi o člancima preuzetim iz stranoga tiska novijega datuma te se stoga pojavljuje velik broj stranih/engleskih riječi jer još nisu pronađeni odgovarajući nazivi u hrvatskome jeziku.

2.3. Razgovorni funkcionalni stil

Razgovorni se funkcionalni stil u medicinskoj znanosti ostvaruje u komunikaciji između liječnika, ili bolje rečeno zdravstvenih djelatnika, i pacijenata, ali i između samih liječnika. Taj stil služi za svakodnevno sporazumijevanje, a označuju ga komunikacijska spontanost i nepripremljenost, neusiljenost, prirodnost i familijarnost. U njemu se često pojavljuju ekspresivni i emocionalno obojeni izrazi, a upotpunjen je izvanjezičnim načinima komunikacije, kao što su geste i mimika.

Za komuniciranje u zdravstvu najvažnija je neposredna komunikacija između pacijenta s jedne strane i liječnika, medicinskih sestara i drugih zdravstvenih djelatnika s druge strane. U zdravstvenoj se njezi, međutim, primaoci i davaoci poruka nalaze u specifičnom odnosu. U tom odnosu pacijent mijenja ulogu davaoca i primaoca poruke, postajući čas jedno čas drugo, ali uvijek ostaje u inferiornom i zavisnom položaju.

Komunikacija na relaciji liječnik – pacijent ostvaruje se na principu nadređenosti (dominacija liječničke uloge). Vrlo često u takvoj komunikaciji dolazi do nesporazuma, prije svega zbog nepreciznosti upotrijebljenih naziva ili nepreciznosti njihove uporabe te zbog nedostatka povjerenja prema novim nazivima. Uzrok je nesporazuma pretpostavka da je jezična kompetencija sugovornika jednaka, ali ona to u stvarnosti nije.

Jezična kompetencija sugovornika jednaka je na relaciji liječnik – liječnik. U toj se komunikaciji liječnik, kao stručnjak, služi kodom razumljivim za drugog stručnjaka.

Taj odnos stručnjak – stručnjak pretpostavlja zajednički, potpuno razumljiv kod dok govorni jezik služi samo kao instrument. Ovdje se radi o specifičnosti komunikacije stručnog tipa koja se zasniva na nekoj vrsti podvojenosti. Što je jaz između jezične/društvene/kodne kompetencije veći, tim je veći intenzitet podvojenosti takve komunikacije (Kryzan-Stanojević 1996: 267).

Komunikacija pretpostavlja korištenje istog ili prilagođenog koda. Uvjet je komunikacije da obje strane poznaju jedan zajednički jezik. Liječnik u komunikaciji s pacijentom međutim odustaje od jezika struke, ne služi se kodom, već se služi riječima iz općeg jezika kako bi ostvario komunikaciju. Na taj se način pokušava približiti nestručnoj razini pacijenta. Katkad se pacijenti nastoje koristi njima poznatim medicinskim riječima. No, zbog nedovoljnog poznavanja struke i naziva, medicinski je jezik pacijenta nejednoznačan (zbog znanstvene medicinske nekompetencije), često pogrešan i nepouzdan.

U idućim ćemo poglavljima analizirati lingvistička obilježja medicinskoga diskursa na konkretnim primjerima iz korpusa koji čine znanstveni, stručni i popularni medicinski časopisi.

3. Uporaba internacionalizama

Medicinska je znanost jedna od onih čije se nazivlje temelji na latinskom ili grčkom jeziku, a ujedno je medicina jedna od struka u kojoj se latinski najdulje zadržao. Ne radi se ovdje samo o posuđenicama iz latinskog već i o pisanju dijagnoza na latinskom oko čega se danas vode brojne polemike. Jedni podržavaju takvu dosadašnju praksu, tvrdeći da se time postiže veća preciznost i točnost u definiranju dijagnoze jer je medicinsko nazivlje latinizirano te da je uporaba latinskog u medicini način obrane od poplave engleskih medicinskih naziva. Drugi pak smatraju da hrvatski nazivi trebaju zamijeniti latinske u cilju očuvanja hrvatskog jezika, ali i bolje komunikacije s pacijentima. Treći drže da latinska dijagnoza zaštićuje dio obavijesti i od pacijenta te djeluje blaže od hrvatske u teškim slučajevima. Stav o ovom pitanju iznijelo je Vijeće za normu hrvatskoga standardnog jezika i podržalo prijedlog da se "uz latinsku dijagnozu (koju ne treba ukidati) piše i hrvatska s obzirom na pravo pacijenta na obavijest, a i radi njegovanja hrvatskoga nazivlja u medicini".

Internacionalizmi su s obzirom na uklopljenost u hrvatski jezični sustav najčešće prilagođenice. Pretežnim dijelom oni potječu ili imaju korijen iz klasičnih jezika i zajednička su leksička baština europskih jezika. Dio je internacionalizama nastao u novije doba jer nazivi tehničkih i znanstvenih dostignuća u svojoj osnovi imaju grčku ili latinsku riječ. Zbog purističkih težnji 90-tih godina prošloga stoljeća interna-

cionalizmi su se nastojali zamijeniti domaćim riječima. Tako *centar* postaje *središte*, *sustav* zamjenjuje *sistem* itd. Radilo se o riječima iz općeg jezika što se odrazilo i na medicinsko nazivlje pa se mnogi internacionalizmi zamjenjuju hrvatskim riječima te tako *središnji živčani sustav* zamjenjuje *centralni nervni sistem*, a uvodi kratica CŽS koja zamjenjuje već u svim jezicima uvriježenu kraticu CNS, *kardiovaskularni* postaje *krvožilni*, *cirkulacija* postaje *optok*, *mikroskop* postaje *sitnozor*, *telefon brzoglas* itd.

U našem smo korpusu zabilježili velik broj latinizama i grecizama (nazivi organa, simptoma, dijagnoza, terapijskih postupaka), uključujući i one koji su u hrvatski došli preko engleskog. I ovdje bilježimo odstupanja od norme:

bolje	nego	engleski naziv
<i>incidencija</i>	<i>incidenca</i>	incidence
<i>magnetska rezonancija</i>	<i>rezonanca</i>	magnetic resonance
<i>prevalencija</i>	<i>prevalenca</i>	prevalence
<i>latencija</i>	<i>latenca</i>	latence
<i>sekvencija gena</i>	<i>sekvenca</i>	sequence
<i>komplementarnost</i>	<i>komplementacija</i>	complementation
<i>imunodeficijencija</i>	<i>imunodeficijenca</i>	immunodeficiency
<i>srčana frekvencija</i>	<i>frekvencija</i>	frequency
<i>postvirusni</i>	<i>postviralni</i>	postviral
<i>supstancija</i>	<i>supstanca</i>	substance
<i>reagencija</i>	<i>reagens</i>	reagent
<i>rezistencija</i>	<i>rezistenca</i>	resistance

4. Utjecaj engleskog jezika na medicinski jezik

Tijekom posljednja dva desetljeća utjecaj engleskoga jezika na hrvatski jezični sustav postao je nedvojbjen. Tako je i u jeziku medicinske struke. Leksik je najpodložniji stranim utjecajima. Strani se nazivi prihvaćaju kada se pojavi potreba za označavanjem nekog novog pojma. U tom slučaju autori najčešće pribjegavaju preuzimanju stranih riječi, u današnje vrijeme ponajprije engleskih. Međutim, sve veći broj riječi engleskoga podrijetla rezultat su ne samo popunjavanja praznih mjesta u sustavu, već i pomodnosti korištenja svega što je strano, posebice američko.

Stav prema stranim riječima vrlo je jasan: tuđe se riječi, tuđice i prilagođenice, upotrebljavaju samo onda kada za pojmove koji se njima označuju nemamo dobrih riječi u hrvatskom jeziku ili ih ne možemo lako načiniti (Mihaljević 1998: 78). Strani se nazivi međutim mogu nalaziti u hrvatskom znanstvenom tekstu, no uvijek će se smatrati stranim nazivima. Budući da strane riječi dolaze iz jezika koji imaju drukčiji ustroj od hrvatskoga, one su u hrvatskome nejasne, nemotivirane jer nemaju oslonac u drugim riječima.

Supostojanje uz domaći izraz i jednog stranog za stručne i tehničke pojmove dobro je došlo iz stilističkih i komunikacijskih razloga jer je u znanosti komunikacija usmjerena na domaći, ali i na inozemni svijet (Škarić 1983: 101). Funkcije su jezika raznolike: sporazumijevanje i prikrivanje, sporazumijevanje s jednim i isključivanje drugih, težnja prema jednoznačnosti i težnja prema stilističkoj obojenosti, logičnost iskaza i mističnost. Znanstvenici i stručnjaci za svoje nove ideje i izume traže izraze tvorbom novih riječi pomoću morfema iz svog jezika ili iz klasičnih jezika, ali i izrazima preuzetim uglavnom iz engleskog jezika.

Pitanje uporabe stranih riječi, međutim, uvijek je aktualno pitanje koje nikada u potpunosti neće biti riješeno jer se svakodnevno javljaju nove ideje i pojmovi koji ulaze u hrvatski jezični sustav. U zamjenjivanju stranih/engleskih riječi hrvatskima javljaju se određene poteškoće kojih su svjesni svi lingvisti, a Babić (1982: 13) ih sustavno navodi. Jedna od osnovnih je u tome što se strane riječi ne mogu mehanički zamjenjivati. Idući se problem javlja u stvaranju domaće riječi jer vrlo često jednu stranu riječ zamjenjuje više domaćih riječi, a najveća poteškoća nastaje u odabiru prave domaće riječi koja će i po izrazu i po sadržaju odgovarati stranoj riječi. I upravo u tim Babićevim navodima možemo naći razloge za tako velik broj stranih riječi i posuđenica.

4.1. Uklopljenost engleskih medicinskih naziva u fonološki i morfološki sustav hrvatskoga jezika

U najvećoj se mjeri posuđuju imenice. Analizirajući korpus došli smo do zaključka da vrlo često nazivi nisu usklađeni s jezičnim sustavom hrvatskoga standardnog jezika, kao npr. *pejsmejer*, *bajpas*, *fejs lifting*, *bodi bilding*, *lyonizacija*. Naime, suglasničke skupine *-js*, *-jk*, *-jp*, *-ld* ne uklapaju se u hrvatski fonološki sustav, dok se primjeric *-y* ne uklapa u pravopisni.

4.2. Morfološka adaptacija

Morfološki se strane riječi i posuđenice prilagođuju sustavu jezika, odnosno sklanjaju se kao i domaće riječi i podliježu svim morfološkim pravilima tvorbe množine, padeža. Npr.

peelinzi, crossing overom, boosteri, chaperoni, bypassom...

U korpusu smo zabilježili sljedeće primjere:

- Kućni *peelinzi* znatno su slabije koncentracije od onih koji se primjenjuju u dermatološkim ordinacijama. (Vita, 131, 02/05)
- Novija istraživanja dat će više informacija o djelotvornosti *screeninga* u ovoj populaciji. (Medix, 12/2004, 56/57, 180)
- ... bolest i biljeg će se zajedno naći u svakog djeteta, osim ako se slučajno oni ne razdvoje *crossing overom* u mejozi. (Molekularna biologija u medicini, 86)
- Svaka četvrta osoba žrtva je *mobbinga*. (Novi list, 09.03.2005)
- U posljednje se vrijeme u svijetu sve više piše o takozvanom sindromu "*burnout-a*" ili psihičkog izgorijevanja medicinskog osoblja. (Narodni zdravstveni list, 10/9, 2004, 23)
- Može se unaprijediti uporabom više restrikcijskih enzima ili u kombinaciji sa *Southern blotom*. (Molekularna biologija u medicini, 231)
- promjene se moždane cirkulacije mogu neinvazivno pratiti transkranijalnim *color dopplerom*. (Medix, 07.2005, 59, 82)
- Potrebno je izbaciti *triggere*, izbjegavati stresove i provoditi ujednačen ritam života i prehrane. (Medix, 07.2005, 59, 83)
- U najtežim slučajevima pristupa se kombiniranoj terapiji za sprječavanje *cluster-a*. (Medix, 07.2005, 59, 76)
- Kod benigne intrakranijalne hipertenzije ili sindroma pseudotumora mozga nema neuroradioloških znakova osim mogućnosti znakova u *empty sellu*. (Medix, 07/2005, 59, 88)

Pridjeva je manje te bilježimo sljedeće primjere: *antibiotic lock* tehnika, *color doppler*, *dose ranging* istraživanje, *dumping* sindrom, *empty sell*, *far western blot* analiza, *homing* molekula, *house keeping* gen, *life saving* lijek, *low grade* karcinom, *macular-weighted* funkcija, *northwestern* analiza, *self-cleaning* princip ...

Broj glagolskih stranih riječi ili posuđenica u medicinskom nazivlju mnogo je manji od broja imenskih ili pridjevnih. Razlog je tome činjenica da se glagoli u nazivlju struka posuđuju u manjoj mjeri.

Glagoli preuzeti iz engleskoga prilagođavaju se sustavu hrvatskoga jezika s pomoću infinitivnih formata *-ati* ili *-irati*. U korpusu smo zabilježili primjere tvorbe glagola s formantom *-irati*. Navodimo primjere:

engleski	hrvatski
blokirati	block
deletirati	delete
detektirati	detect
implantirati	implant
klonirati	clone
mapirati	map
skenirati	scan
testirati	test

Strane bi se riječi po pravilu trebale pisati kurzivom, međutim to nije u svim slučajevima zabilježeno u našem korpusu. U većini su slučajeva stavljene u navodnike što ukazuje na to da se radi o stranoj riječi. Većinu primjera donosimo iz "Medixa", stručno popularnoga medicinskog časopisa, namijenjenog liječnicima i laicima. Iz navedenih primjera možemo zaključiti da se strani nazivi preuzimaju u izvornom obliku bez obzira na postojanje domaće istovrijednice kao u primjeru "border line" poremećaj koji se u literaturi nalazi kao "granični".

- To su bolesnici s "crush" ozljedom, sepsom, aterosklerotičnim promjenama i starija dobnja populacija. (Medix, 10/2004, 1, 31)
- Iako su značajna područja u svijetu danas "polio-free region", eradikacija divljega polija nije u cijelosti postignuta. (Medix, 07/2005, 59, 122)
- "Antibiotic-lock" tehnika s ili bez sustavne antibiotske terapije pokazuje dobre rezultate u "čuvanju" katetera u 82.6%. (Medix, 07/2005, 59, 117)
- Pacijenti koji boluju od "border line" tipa poremećaja osobnosti ... (Medix, 07/2005, 59,95)
- Prema jednoj "follow-up" studiji djece u dobi od 8-9 godina s glavoboljom, 8.5% djece imalo je migrenu. (Medix, 07/2005, 59,82)
- Aktivno usmjeravanje prema cilju postiže se inkorporiranjem tzv. "homing" molekula koje pomažu ulaz u određena tkiva. (Medix, 07/2005, 59, 48)
- Na temelju kliničkih znakova i tijeka bolesti opisana su četiri prijelazna i srodna tipa ATL: asimptomatski, preleukemijski, "smoldering"- kronični i akutni. (Virologija, 271)

- Rinovirusi uzrokuju upalu dišnih putova (...), "wheezing" u djece koja boluju od astme... (Virologija, 185)
- Hibridizacija "dot blot" (Virologija, 103)
- "Booster" cjepiva opetovano se daju u određenim vremenskim razmacima radi stvaranja dugotrajne imunosne zaštite. (Virologija, 79)
- Kod djece s MELAS sy. registriraju se "stroke like" epizode uz periodične glavobolje s povraćanjem. (Medix, 12/2004, 56/57, 135)
- Europski prosjek mortaliteta za operaciju transpozicije velikih arterija srca u novorođenčadi ("switch" arterija) iznosi danas 8%... (Medix, 12/2004, 56/57, 107)
- od neinvazivnih metoda koje se još koriste u dijagnostici aritmija u djece valja poznavati takozvani "head-uptilt-table test". (Medix, 12/2004, 56/57, 96)

Iz navedenih je primjera vidljivo da se strane riječi stavljaju u navodnike u stručno popularnim časopisima, a vrlo rijetko u znanstvenim publikacijama. Pretpostavljamo da na taj način autori ukazuju čitateljima da se radi o stranoj riječi za koju još nije pronađena hrvatska istovrijednica. Kad je riječ o znanstvenim publikacijama, liječnici zajedno s novim pojmom prihvaćaju i njezin naziv te ga upotrebljavaju u nedostatku hrvatskog naziva.

Bilježimo primjere uporabe engleskih naziva u znanstvenim publikacijama:

- protein ima predviđeni coiled coil motiv sličan onome u intermedijarnih filamentnih proteina. (Molekularna biologija u medicini, 186)
- ...bolest i biljeg će se zajedno naći u svakog djeteta, osim ako se slučajno oni ne razdvoje crossing overom u mejozi. (Molekularna biologija, 86)
- Suprotno tome, neki se geni prepisuju neprekidno u svim tkivima i zovu se housekeeping geni. (Molekularna biologija u medicini, 61)
- NFkB se veže na svoja vezna mjesta na promoter/enhancer regiji smještenoj u LTR... (Molekularna biologija u medicini, 247)
- Uznapredovala su istraživanja u stvaranju transgeničnih svinja koje izražavaju humane regulacijske proteine za decay accelerating factor. (Molekularna biologija, 205)
- Tri druga gena, također odgovorna za nastanak HNPCC, homolozi su bakterijskom genu mismatch priprava. (Molekularna biologija, 187)

4.3. Utjecaj engleskoga jezika na sintaksu

Iako je posredno posuđivanje usmjereno na područje leksika, neki se utjecaji mogu primijetiti na sintaktičkom planu. U našem smo istraživanju naišli na nekoliko takvih primjera:

- ...određivanje *prostata specifičnog antigena* u krvi (...) u široj je primjeni tek 15-ak godina. (Vita, 2005, 30)

Radi se o nazivu koji je nastao prema engleskom modelu "prostate specific antigen" te je doslovno prenesen, no u hrvatskom se jeziku imenica u pridjevskoj funkciji ne uklapa u rečeničnu strukturu. Prihvatljivije rješenje bilo bi preoblika tvorbenim obrascem pridjev+imenica ili imenica+imenica u genitivu *specifični prostatični antigen* ili *specifični antigen prostate*.

- *laser akupunktura*

Također se radi o uporabi imenice u pridjevskoj službi po uzoru na engleski jezik (laser acupuncture). Ispravno bi trebalo biti *laserska akupunktura*.

- stres fraktura

Naziv je nastao prema engleskom *stress fracture*, ali je kao takav neprihvatljiv u hrvatskom jeziku zbog rečenične strukture koja izbjegava imenicu u pridjevskoj funkciji. Ovdje bi prihvatljivije rješenje bilo *prijelom prouzročen stresom* jer ni naziv "stresna fraktura" na koji smo naišli u korpusu ne odgovara značenju engleskog izvornika. "Stresan" znači "koji ima karakteristike psihičke napetosti", a ovdje se radi o prijelomu koji je naglo izazvan padom, uganućem ili udarcem.

- kolor dopler

Ponovno se radi o jukstapoziciji, a najprihvatljivije je rješenje *obojeni dopler*.

- behavior terapija

U korpusu je zabilježen i naziv *terapija ponašanja* koji je jezično prihvatljivije rješenje.

- marker-gen

Prihvatljiv bi naziv bio *označiteljski gen*.

- balon-kateter

U ovom se slučaju radi o kirurškom pomagalu – kateteru s balonom na vrhu. Prihvatljiviji bi naziv bio *kateter s balonom* ili *balonski kateter*.

- organ-specifični antigen

Prihvatljiviji bi naziv bio *specifični antigen organa*.

- reakcija bori se ili bježi

Radi se o skupini koja je također nastala po uzoru na engleski (*fight or flight reaction*).

Iz navedenih primjera možemo zaključiti da su slučajevi sintaktičkog kalka nastali pod utjecajem engleskoga. Međutim, budući da tvorbeni tip jukstapozicije nije svojstven hrvatskom jeziku, trebalo bi ga zamijeniti pridjevom i imenicom gdje god je to moguće ili imenicom i imenicom u genitivu.

5. Uporaba kratica

Uporaba kratica još je jedno od obilježja i pisanoga i govorenoga medicinskog diskursa. Usporedo s posuđivanjem naziva posuđuju se i njihove kratice. Paralelno s priljevom novih engleskih riječi i engleske kratice ulaze u hrvatski jezik u velikom broju posebice u stručnom nazivlju. Stručne su kratice međutim poznate samo malom broju ljudi koji se bave nekom strukom i onima kojima je to područje blisko.

U jeziku medicinske struke kratice su učestale posebno u pisanim medicinskim tekstovima, a s napretkom znanosti i tehnologije njihova uporaba postaje sve učestalija. Skraćivanje naziva znači uštedu vremena uz istodobno ostvarenje komunikacije.

Veliki priljev kratica, posebice stranoga podrijetla, može prouzročiti smetnje u komunikaciji zbog nejasnoće njihova značenja. Osnovni nedostatak kratica naime jest nerazumljivost njihova sadržaja. To su u potpunosti neprozirne riječi iz čijeg se oblika ne može prepoznati značenje. Na govornika i čitatelja obično djeluju zbunjujuće ako ne poznaju potpuni naziv. Zbog vrlo male informacijske vrijednosti neke se kratice zadržavaju kratko u jeziku.

Primjena raznih skraćenica kojima se ne zna podrijetlo, a koje se koriste dijelom radi uštede vremena, a dijelom da se stanoviti izrazi učine nerazumljivim za bolesnike još je jedna negativna značajka medicinskog jezika (Glesinger 1965: 1127). Iako se kratice danas koriste zbog ekonomičnosti i uštede vremena, prema današnjim načelima medicinske bioetike pacijent ima pravo na potpunu informiranost (*informed consent*) te je stoga drugi razlog što ga autor navodi da određeni izrazi budu nerazumljivi pacijentu vrlo dvojbene s bioetičkog stanovišta. Prema čl. 2 *Kodeksa medicinske etike i deontologije* jasno se određuje obveza liječnika u poštivanju "prava svakog bolesnika da dobro obaviješten slobodno prihvati ili odbije pojedinog liječnika, odnosno preporučenu liječničku pomoć" te je stoga jasno da su laici dobro informirani

o dužnostima koje liječnici trebaju ispunjavati u kontaktima i odnosu s njima. To također uključuje razumljivost i jasnoću naziva i jezika kojim se liječnici služe.

U korpusu je zabilježen veliki broj kratica koje nastaju na nekoliko načina (Gjuran-Coha, Bosnar-Valković 2008), a one se u nepromijenjenome obliku preuzimaju u hrvatski jezik:

ADD < attention deficit disorder

MR < magnetic resonance

MAC < membrane attack complex

TIA < transient ischaemic disease

Kratice su učestale u poluprevedenicama u pridjevnoj funkciji, no poluprevedenice nisu svojstvene hrvatskome jeziku. U korpusu su zabilježeni različiti načini pisanja kratica i odstupanja od norme te ih je u skladu s normom potrebno pisati sa spojnicom, npr.

DNK- dot analiza

EMG-povratna veza

DXA-metoda

RNK-izrezivanje

No, u skladu s normom najbolje je slijediti tvorbeni obrazac "imenica+imenica u genitivu" te preoblikovanja *dot analiza DNA*, *povratna veza EMG*, *metoda DXA* ili *izrezivanje RNK* koji sadržajno ne mijenjaju značenje, ali poštuju normu.

6. Eponimi kao značajka medicinskoga diskursa

U medicinskom su nazivlju zabilježeni brojni nazivi koji su nastali terminologizacijom imena. To su eponimi, odnosno nazivi koji sadržavaju imena po kojima je što nazvano. Ime ulazi u nazivlje neke struke bilo samostalno (u tom slučaju ime označava naziv) bilo kao sastavni dio dvorječne ili višerječne skupine.

U korpusu su zabilježeni ovi slučajevi terminologizacije imena:

Npr. *Papa* je naziv testa kojim se isključuje ili potvrđuje prisustvo malignih stanica u tjelesnim sekretima. Dobio je ime po grčkom liječniku Papanicolaou koji je živio i radio u Americi.

Apgar je naziv za metodu procjene stanja novorođenčeta, koji uključuje boju kože, srčane otkucaje, disanje, mišićni tonus i reakciju na podražaje. Naziv je dobio po američkoj anesteziologinji Virginiji Apgar. Nalazimo ga i u višerječnom nazivu koji sadrži ime (*Apgar score*).

Višerječni nazivi koji sadrže ime nisu toliko učestali jer se ne uklapaju u strukturu hrvatskoga jezika. U korpusu smo zabilježili sljedeće primjere:

Apgar indeks (*Apgar score*) → bolje *Apgarov indeks*,

Billings metoda (*Billings method*) → bolje *Billingsova metoda*,
operacija po Bankartu (*Bankart's operation*),

Milwaukee steznik (*Milwaukee brace*) → bolje *Milwaukeejev sindrom*, ,

Peplau model (*Peplau's model*) → bolje *Peplauov model*,

Stamey postupak (*Stamey procedure*) → bolje *Stameyev postupak*,

Treacher Collins sindrom (*Treacher Collins syndrome*) → *Treacher Collinsov sindrom*,

Hippel-Lindau sindrom (*Hippel-Lindau syndrome*) → bolje *Hippel-Lindauov sindrom*,

Weber-Christian mezenterija (*Weber-Christian disease*) → bolje *Weber Christianova mezenterija* ,

Wernicke-Korsakoff sindrom (*Wernicke-Korsakoff syndrome*) → bolje *Wernicke-Korsakoffov sindrom*,

Wolff-Parkinson-White sindrom (*Wolff-Parkinson-White syndrome*) → bolje *Wolff-Parkinson-Whiteov sindrom*.

Međutim, brojni su primjeri višerječnih naziva koji sadrže pridjev tvoren od imena što je prihvatljivije prema hrvatskoj jezičnoj normi:

<i>Addisonova anemija</i>	Addison's anaemia
<i>Bakerova cista</i>	Baker's cyst
<i>Barlowljeva bolest</i>	Barlow's disease
<i>Barrovo tjelešće</i>	Barr body

Ti su dvorječni nazivi nastali u engleskom, a iz engleskog su u istom obliku preuzeti u hrvatski.

7. Sinonimija u medicinskom diskursu

Naziv za određeni pojam može nastati na više načina pa tako nastaju sinonimni nizovi. Postojanje sinonimnih nizova u terminologiji nije dobro, pa je nužno među nazivima koji označuju isti pojam odabrati jedan te njemu dati prednost u odnosu na ostale. Pri tom je potrebno voditi računa da bude u skladu sa najnovijim postignućima znanosti i tehnike te da bude u skladu s hrvatskim standardnim jezikom. Analizirajući primjere iz korpusa došli smo do zaključka da su sinonimi rašireni u medicinskom jeziku te da ih autori učestalo koriste. Zbog nesigurnosti značenja i uporabe naziva ili njegove razumljivosti nerijetko navode i engleski i hrvatski naziv što ne doprinosi znanstvenosti stila već ostavlja dojam jezične nesređenosti.

Navest ćemo neke od zabilježenih primjera:

- Visoka učestalost može odražavati slučajno *gensko skretanje*. (engl. genetic drift) (Molekularna biologija, 92)
- *maksimalna koštana masa* (engl. peak bone mass) (Medicina, 05)
- Samo *pogrešna sparivanja* pocijepat će se u ovom postupku, otkrivajući aberantne sekvencije... (engl. mismatches) (Molekularna biologija, 19)
- *Probir* novorođenčadi na oštećenje sluha s posebnim osvrtom na rizičnu novorođenčad (engl. screening) (Medicina, 04/05)
- Analizom nukleotidnoga slijeda možemo prepoznati *otvorene okvire za čitanje*. (engl. open reading frames) (Molekularna biologija, 272)
- ... mogu se dizajnirati *protusmisleni* RNA i ribozimski redoslijedi koji bi cijepali ciljane RNA. (engl. antisense) (Molekularna biologija, 298)

U nekim slučajevima autori navode engleski izvorni naziv u zagradi, ali ga nastavlja ju koristiti u daljnjem tekstu bez obzira na postojanje hrvatskog naziva.

- *Okidači* (trigger) glavobolje su rjeđe zastupljeni, a najčešći trigger je nedostatak spavanja. (Medix, 2005, 71)

7.1. Primjena terminoloških načela na medicinsko nazivlje

S ciljem uklanjanja sinonimije analizirat ćemo hrvatske istoznačnice engleskih naziva koje su zabilježene u anketi provedenoj među liječnicima Kliničkog bolničkog centra Rijeka, Domova zdravlja Rijeka i Opatija te Medicinskog fakulteta u Rijeci, pretpostavljamo poznavateljima medicinskog nazivlja i u medicinskim publikacijama te ćemo temeljem terminoloških načela odabrati najprihvatljiviji naziv. Anketa je provedena kao dio opsežnog istraživanja uporabe anglizama u medicinskom nazivlju, a ispitanici-liječnici trebali su predložiti hrvatski naziv za navedene angлизme.

Zabilježili smo sljedeće istoznačne nazive:

1. *face lifting* – operacija zatezanja lica – zatezanje kože lica – zatezanje – pomlađivanje lica – učvršćivanje kože i mišića lica – liceglaćanje – peglanje bora – ravnanje lica – zatezanje kože na licu – pomlađivanje.

Face lifting strani je naziv te stoga prednost treba dati domaćem nazivu. Nazivi *zatezanje* i *pomlađivanje* su najkraći, ali sadržajno ne odgovaraju engleskom nazivu (vrlo su općeniti). *Učvršćivanje kože i mišića lica* kao i *zatezanje kože na licu* višerječni su te ih je stoga bolje zamijeniti kraćim nazivom. *Liceglaćanje* jezično je neprihvatljiv naziv jer je tvoren prema engleskom obrascu "imenica+imenica" koji je u hrvatskom neprihvatljiv. Jezično bi prihvatljiv oblik bio *glaćanje lica*. *Peglanje bora* naziv je koji

se koristi u svakodnevnom govoru, a *ravnanje lica* terminološki je neprihvatljiv naziv (naziv *ravnanje* se u medicini koristi za ispravljanje čega što je iskrivljeno poput nosa ili kralježnice). Jezično i terminološki najprihvatljiviji je naziv *zatezanje lica* koji slijedi tvorbeni obrazac imenica+imenica u genitivu.

2. *peeling* – piling – odstranjenje površinskih odumrlih stanica kože – dubinsko čišćenje kože – ljuštenje kože – struganje kože – odstranjivanje odumrlih stanica kože – kozmetičko čišćenje lica – abrazija.

Peeling je naziv za postupak "kojim se odstranjuju površinske odumrle stanice kože" (Jernej: 2006). No, taj naziv kao i naziv *odstranjivanje odumrlih stanica kože* predugačak je i stoga neprihvatljiv. Vrlo se često koristi pravopisno prilagođeni oblik *piling*, no, budući da se prednost daje domaćem nazivu, s tog je aspekta neprihvatljiv. Naziv *abrazija* je pak latinizirani oblik istog sadržaja (lat. *abrasio, abrasionis*) i označuje "struganje površinskih slojeva epitela kože" (Klaić: 2004). Dakle, prema terminološkim načelima prednost bi trebalo dati prije latinizmu nego anglizmu. Nazivi *dubinsko čišćenje kože* i *kozmetičko čišćenje lica* vrlo su općeniti te terminološki ne odgovaraju engleskom nazivu. Naziv *ljuštenje kože* terminološki ne izražava kozmetički postupak kojim se odstranjuju odumrle ili oštećene stanice, već prirodni proces obnavljanja kože npr. nakon sunčanja. Stoga, najprihvatljiviji je naziv *struganje kože* koji jezično prati tvorbeni obrazac "imenica+imenica u genitivu".

3. *burnout sindrom* – izgaranje na radu – iscrpljenost i smanjeni radni učinak uslijed prekomjernog rada – istrošenost-umor-iscrpljenost-stres – preopterećenost na poslu – sagorijevanje na poslu – sindrom sagorijevanja – sindrom izgaranja – izgaranje na radnom mjestu – psihološko sagorijevanje – iscrpljivanje radom – sindrom nagomilanog psihofizičkog umora.

Burnout sindrom strani je naziv te je iz tog razloga neprihvatljiv. Višerječni su nazivi *iscrpljenost i smanjeni radni učinak uslijed prekomjernog rada, istrošenost-umor-iscrpljenost-stres te sindrom nagomilanog psihofizičkog umora* neprihvatljivi zbog duljine naziva. Nazivi *preopterećenost na poslu* i *iscrpljivanje radom* vrlo su općeniti i terminološki ne odgovaraju engleskom izvorniku. *Psihološko sagorijevanje* naziv je jezično neprihvatljiv jer *psihološki* je pridjev od imenice *psihologija*, a to je "znanost koja proučava duševni život i procese" stoga bi u ovom slučaju prihvatljiv oblik bio *psihičko sagorijevanje* (pridjev *psihički* od imenice *psiha*).

4. *pejsmejker* – stimulator srčanog ritma – regulator srčanog ritma – elektrostimulator ritma srca – regulator ritma srca – stimulator rada srca – srčani stimulator – stimulator srca – elektrostimulator srca – električni stimulator srca – srčani elektrostimulator – srčani ritmodržač.

Pejsmejker je posuđenica uz koju se također upotrebljava i izvorni oblik *pace maker*. Najprihvatljiviji hrvatski naziv bi bio *srčani elektrostimulator* jer se sastoji od dvije rije-

či te jezično prati tvorbeni obrazac "pridjev+imenica" koji je prihvatljiviji od obrasca "imenica+imenica u genitivu". Ostali su ponuđeni nazivi trorječni te su zbog toga manje prihvatljivi. Odabir između imenica "regulator" i "stimulator" ovisi o predmetnom stručnjaku, no kako taj aparat stimulira rad srčanog mišića čini nam se da je naziv *stimulator* i terminološki prihvatljiviji. Tvorbeno, oba se naziva sastoje od sufiksa *-tor* koji je dodan na stranu osnovu imenica koje završavaju na *-cija* (*stimulacija*, *regulacija*) te označuju napravu.

5. *wellness centar* – centar za psihofizičko zdravlje – centar za zdrav život – centar za zdravlje – centar za očuvanje zdravlja.

Wellness centar naziv je koji se u našem korpusu pojavio isključivo u ovom pravopisno neprilagođenom obliku. U anketi su ponuđeni razni prijedlozi hrvatskoga naziva od kojih su svi višerječni i uglavnom se radi o prijedlozima konstrukcijama. Međutim neki od njih su jezično manje prihvatljivi kao npr. *centar za zdravlje* koji tvorbenom preoblikom može postati dvorječni – *zdravstveni centar*. No terminološki taj hrvatski naziv nije prihvatljiv jer *wellness centar* ima puno šire značenje. Možda bi *centar za psihofizičko zdravlje* bio donekle prihvatljivo rješenje, no strani je naziv postao toliko proširen i koristi se u publikacijama, u svakodnevnom govoru i u medijima.

6. *mobbing* – maltretiranje na poslu – zlostavljanje na radnom mjestu – psihološko zlostavljanje na poslu – psihološko maltretiranje na radnom mjestu – psihofizički pritisak na poslu.

Naziv *mobbing* strana je riječ, ali je nalazimo i kao posuđenicu *mobing*. Njezino je značenje složeno te obuhvaća "smišljeno i dugotrajno psihičko i fizičko zlostavljanje na radnom mjestu" (Jernej: 2006). *Maltretiranje na poslu* najkraći je naziv, no ponovno se radi o posuđenici (iz francuskog jezika *maltraiter*) te ju je potrebno zamijeniti domaćom riječi. *Zlostavljanje na radnom mjestu* je višerječni naziv koji radi ekonomičnosti naziva možemo skratiti u *zlostavljanje na poslu*. Ostali su nazivi predugački pa su iz tog razloga neprihvatljivi.

7. *gene tracking* – gensko praćenje – praćenje nasljeđivanja pojedinog gena u obitelji. Slijedom terminoloških načela prikladniji je naziv "gensko praćenje" jer je kraći, sadržajno odgovara engleskom nazivu i tvoren je prema tvorbenom obrascu "pridjev + imenica".

8. *heat shock protein* – protein akutne faze – stanična stresna bjelančevina.

S normativnog stanovišta prihvatljiviji je naziv "stanična stresna bjelančevina" jer slijedi tvorbeni obrazac pridjev + pridjev + imenica. Terminološki se ne bismo upuštali u dublju analizu jer je to zadatak predmetnog stručnjaka.

9. *rebound effect* – odskočni efekt – povratni efekt.

S normativnog stanovišta oba su naziva prihvatljiva, slijede tvorbeni obrazac pridjev + imenica, no s terminološkog stanovišta farmakolozi odbijaju naziv "odskočni efekt" tvrdeći da ne odgovara engleskome izvorniku. Radi jasnoće navest ćemo cijelu rečenicu: "Primjena jako visokih doza jednog vitamina izaziva reakciju organizma koji ga počne uništavati. To se zove odskočni efekt."

10. *imaging* – slikovna pretraga – snimanje – vizualizacijska metoda – metoda oslikavanja. S normativnog stanovišta prihvatljivi su nazivi koji prate tvorbeni obrazac "pridjev+imenica" nego genitivna konstrukcija "imenica+imenica u genitivu", no "snimanje" bi bilo najbolje rješenje jer se radi o jednorječnom nazivu (u skladu s terminološkim načelom duljine naziva) koji je u hrvatskom vrlo proširen i prihvaćen (npr. ultrazvučno snimanje, rendgensko snimanje itd.). U ovom se slučaju pozivamo na načelo proširenosti i prihvaćenosti. Vrlo je česta pogreška autora kada je riječ o engleskom nazivu *magnetic resonance imaging*. Naime, autori se vrlo često koriste nazivom "*snimanje magnetskom rezonancijom*" što dovodi do pleonazma jer sam naziv "magnetska rezonancija" znači "tomografski prikaz tijela (op.a. dakle snimanje) koji se temelji na primjeni izvantjelesnih magnetskih polja" (Jernej: 2006), te je stoga naziv *snimanje* suvišan.

11. *open reading frame* – otvoreni okvir čitanja – otvoreni okvir za čitanje – otvorena mjesta prepisivanja zapisa za proteine

S normativnog stanovišta posljednji je naziv predugačak te stoga nije prihvatljiv. "Otvoreni okvir čitanja" najprihvatljiviji je jer slijedi tvorbeni obrazac "pridjev+imenica+imenica u genitivu", dok je naziv "otvoreni okvir za čitanje" u skladu s jezičnim pravilima no predugačak je te ga je bolje zamijeniti kraćim.

12. *shunt* – šant – arterijsko-venski spoj – spoj dvaju anatomskih kanala – funkcijski nefiziološki spoj – spoj

Posljednji je naziv s jedne strane najprihvatljiviji jer je najkraći, no s druge je strane višeznačan jer se njime prevode engleski nazivi *junction* i *ligation* te nam je iz tog razloga neprihvatljiv. Naziv "arterijsko-venski spoj" jezično je prihvatljiv, no s terminološkog stanovišta podrazumijeva spoj između arterijskog i venskog sustava, čime je vrlo usko definiran. U literaturi se u tom slučaju navodi "A-V shunt". Naziv "spoj dvaju anatomskih kanala" predugačak je pa je s te strane manje prihvatljiv. Jezično je najprihvatljiviji naziv "funkcijski nefiziološki spoj" koji prati tvorbeni obrazac "pridjev+pridjev+imenica, a i terminološki je najdosljedniji jer izražava funkcijsko zbivanje, a ne samu komunikaciju.

Predložena analiza može poslužiti kao predložak za uklanjanje sinonimije u medicinskom nazivlju.

8. Izbjegavanje višeznačnosti

Jedno od osnovnih obilježja znanstvenog diskursa je jednoznačnost. Naime, često se događa da jedan naziv ima različita značenja. Takva neujednačenost vodi ka nerazumljivosti sadržaja, njegovoj krivoj interpretaciji i nesporazumu. U korpusu bilježimo sljedeće slučajeve višeznačnih naziva:

- ...dovoljno učinkovit i najčešće primjenjivani postupak u otkrivanju osoba inficiranih HIV-om, ili *rešetanju* ("screen") krvi (...) jest dokazivanje specifičnih protutijela za antigene HIV-a. (Virologija, 268)

Engleski se naziv "screening" ustalio u medicinskom nazivlju u značenju "examination of a group of usually asymptomatic individuals to detect those with a high probability of having a given disease, typically by means of an inexpensive diagnostic test" (Webster's Medical Dictionary: 1987) te se učestalo koristio u izvornom pravopisno neprilagođenom liku. Međutim, u posljednje se vrijeme u hrvatskom koristi prevedenica "probir" koja u početku nije naišla na dobar odaziv struke, no sada je uglavnom prihvaćena i upotrebljava se u znanstvenim i popularnim publikacijama. U ovom navedenom primjeru pretpostavljamo da se radi o "analizi krvi".

Idući naziv koji stvara nedoumice oko uporabe odgovarajuće hrvatske istovrijednice je "splicing". Autori se koriste različitim hrvatskim nazivima pa ga neki navode kao "spajanje", drugi kao "izrezivanje", a treći kao "prekrajanje". Budući da se radi o vrlo specijaliziranoj disciplini pa tako i nazivlju, (genima i njihovoj kombinaciji) nije lako odabrati prikladan hrvatski naziv te je u tom slučaju potrebna suradnja stručnjaka i jezikoslovaca. Navodimo primjere:

- Ovakvi sustavi za ekspresiju mogu se koristiti samo za cDNA, jer se ni u sustavima za transkripciju i translaciju in vitro, ni u bakterijama, ne mogu pratiti reakcije istjecanja i *spajanja* RNA (engl. splicing). (Molekularna biologija, 51)
- Različitim *izrezivanjem* (engl. differential splicing) heterogene nuklearne RNA tog prekursorskog proteina, pre-mRNA, nastaje oblik od 695 aminokiselina. (Molekularna biologija, 145)
- egzoni se spajaju nakon *izrezivanja* RNA (engl. RNA splicing). (Molekularna biologija, 29)

Isti je slučaj s engleskim nazivom "chaperon", kojeg nalazimo kao "pratilac" i kao "popravljač". Pogledajmo sljedeće primjere:

- I drugi su čimbenici uključeni u precizno usmjeravanje proteina kroz membrane, a uključuju tzv. molekularne chaperone (*pratioce*) (engl. molecular chaperones), kao što su heat shock proteini. (Molekularna biologija, 37)

- U nepovoljnim uvjetima stanice pojačano sintetiziraju stanične stresne bjelancevine (engl. heat shock protein) kojima obavljaju brojne funkcije uključujući zaštitu strukture drugih bjelancevina (zbog čega se kadšto nazivaju "popravljačima" ili chaperon-proteini (od engl. *chaperon* "čuvarica mladih dama"). (Patofiziologija, 116)

U ovom slučaju autor navodi i objašnjenje izvornog engleskog naziva koje je u ovom slučaju nepotrebno jer nema nikakve veze sa strukom.

Radi razumljivosti i jasnoće nužno je usuglasiti nazive. Jezične kriterije ispunjavaju oba naziva. Radi se o imenicama, od kojih jedna ima sufiks *-lac* (pratilac), a druga *-ač* (popravljač). Značenje prvoga je "onaj koji prati", a sufiks se dodaje na infinitivnu osnovu. Značenje drugoga je "onaj koji popravlja", a ta se imenica tvori od glagolske osnove nesvršenog glagola (*popravlj-*) koji završava na *-ati* i kojoj se dodaje sufiks *-ač*. Budući da semantičko polje sufiksa *-ač* obuhvaća vršitelja radnje (nomina agentis) ili oruđe (nomina instrumenti), taj je naziv jezično prihvatljiv (usp. Babić 2002.).

Jezikoslovcu, koji nema dovoljno znanja o genetici, teško je odlučiti koji je naziv pojmovno i stručno prihvatljiviji.

- To su neki od *vrlo ranih gena* herpesvirusa. (engl. immediate early gene) (Molekularna biologija, 245)
Taj se engleski naziv koji označava vrstu gena prevodi i kao *neposredno rani gen* što ponovno ukazuje na neujednačenost nazivlja.

S druge pak strane hrvatski se naziv *spoj* koristi za engleske nazive *junction*, *ligation* i *juncture*.

Također u korpusu bilježimo i ove primjere višeznačnosti:

Ligacija

1. vezanje dvaju fragmenata DNA ili RNA
2. postavljanje ligature (npr. konac, žica)

Infiltracija

1. nenormalno prožimanje tkiva stanicama/tvarima (upalnim, tumorskim, masnim)
2. injekcija lokalnog anestetika u tkivo

Insercija

1. hvatište, prihvaćanje mišića
2. umetanje slijeda nukleotida DNA
3. uvođenje (igle)

Iz navedenih je primjera jasno vidljivo da je potrebno ujednačiti nazive pri čemu je važna uska suradnja medicinskih stručnjaka i jezikoslovaca.

9. Zaključak

Medicinski se diskurs ostvaruje kroz medicinske tekstove i usmenu komunikaciju između liječnika i pacijenta, ali i između samih liječnika. Temelj medicinskog jezika čine latinski i grčki te stoga ne čudi veliki broj internacionalizama koji su u potpunosti uklopljeni u hrvatski jezični sustav i nije ih potrebno mijenjati domaćim riječima. S druge strane, bilježimo snažan utjecaj engleskog jezika i sve veći broj engleskih naziva koji laicima ostaju nejasni i neprihvatljivi. U tim je slučajevima potrebno što prije pronaći domaći naziv koji će, ako je pravovremeno ponuđen, vrlo vjerojatno zamijeniti engleski naziv (kao u slučaju *bypassa* i *premosnice*). Također je potrebno izbjegavati jukstapoziciju jer nije svojstvena hrvatskom jeziku te ju je potrebno zamijeniti drugim tvorbenim obrascima (pridjev+imenica ili imenica+imenica u genitivu). Uporaba kratica također je jedno od obilježja medicinskog diskursa. Iako njihova uporaba znači uštedu vremena, ipak ostaje dvojben a s etičkog aspekta jer pacijent ima pravo na potpunu informaciju koja mu je uporabom kratica u potpunosti uskraćena. Sinonimija, još jedno obilježje medicinskog diskursa, neprihvatljiva je u nazivlju. Dok u ostalim funkcionalnim stilovima sinonimi obogaćuju tekst, u znanstvenom je stilu njihova uporaba odraz jezične nesređenosti. Iz tog je razloga, a na temelju terminoloških načela, potrebno odabrati najprihvatljiviji naziv i njemu dati prednost u odnosu na ostale. Izbjegavanje i uklanjanje višeznačnosti također je jedan od zadataka jezikoslovaca i liječnika, a sve to ne može biti ostvareno bez njihove uske suradnje i nastojanja da se uklone sva negativna obilježja medicinskog jezika.

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IZVORI

1. Medix
2. Molekularna biologija u medicini
3. Narodni zdravstveni list
4. Novi list (zdravstveni prilog)
5. Patofiziologija
6. Virologija
7. Vita

Medical discourse analysis

ABSTRACT

All languages are affected by the changes caused by globalization. Globalization includes science and technology and directly affects the communication and its means. Languages for specific purposes are also liable to changes and innovations on all levels. The aim of this paper is to examine some features of medical discourse related to medical terminology and expression used in written and oral communication. Medical language is based on Greek and Latin, but the influx of English terms has been noticed for the last two decades. They are widely accepted and used both in written texts and oral communication. The use of synonyms in medical texts leads to misunderstanding and wrong interpretation. The language of medicine is characterized by the frequent usage of abbreviations. There are changes on the semantic level – widening and narrowing of the meaning and on the syntactic level marked by frequent nominalization.

Key words: linguistic analysis, medical discourse, medical terminology.

Mariusz Górnicz*

Teaching medical translation to non-medical students – a case study with some theoretical insights

ABSTRACT

This article uses the example of a course in medical translation taught at the Institute of Anthropocentric Linguistics and Culturology, University of Warsaw, to make comments on differences in teaching English to medical students vs. teaching medical translation to non-medical students and to propose ideas for more effective teaching of medical translation. It is argued that reconstructing the ontology of concepts found in a text is sufficient to provide a successful translation even if the translator does not possess specialist competence in the subject matter of the text. At the same time, the importance of developing translation students' thematic competence is underlined throughout the paper, and advice is presented on how to encourage the acquisition of such knowledge. The structure of the course is also presented.

This paper uses as its point of departure the practical example of a course in Medical Translation offered to students of Specialised Translation at the Institute of Anthropocentric Linguistics and Culturology (IKLA), University of Warsaw (website: www.ikla.uw.edu.pl), with the aim of obtaining theoretical insights into how the teaching of medical translation to students of modern languages is different from the teaching of medical English to medical students.

The course in medical translation is one of several elective courses offered to students at the Institute as part of their second-cycle degree programme. Approximate-

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ly 20% of students choose to enrol in this course, which comprises 30 classes (60 contact hours) over one year.

The students usually have no formal medical background and generally know little about medicine. Last year I actually prepared a "primer" – a set of questions with links to reference materials serving to elicit some introductory information about medical terminology and text patterns in English and Polish, so that students could come to their first class adequately prepared. The primer (in Polish) can be found at: <http://strony.aster.pl/gornicz/medprimer.html>.

This lack of familiarity with the concept system of medicine is one cardinal difference between my students and those attending English classes at medical universities.

Before elaborating on these differences, let us first discuss what makes a good translator in a specialised field. The authors of the European Master's in Translation programme specify six areas, or competences:

- translation service provision competences (e.g. how to market services, negotiate with a client, manage time and budget, handle invoicing),
- language competence (e.g. how to summarise texts),
- intercultural competence (e.g. how to understand presuppositions or allusions),
- data-mining competence (e.g. how to search terminology databases and familiarity with a series of databases),
- technological competence (e.g. how to use a particular translation tool)
- thematic competence (knowledge about a specialist field of knowledge). [EMT 2]

These competences are deliberately listed in a random order to emphasise their equal importance. Translation competence is defined as the totality of these six competences, though it is not uncommon in the translation literature to see this notion construed as an additional skill: "the ability to form in the target language texts that are equivalent to original texts" [Kielar 2007:19], or "the ability to switch from L1 to L2 to convey the same content in the translation and the original text" [Grucza 2004:250].

Knowledge about the subject matter of the text for translation is the last of the six competences. Apart from *thematic competence*, other names exist for it, such as *area knowledge*, *subject knowledge/competence* or *specialised knowledge*. Other authors stress that thematic competence is not only the possession of a static body of knowledge [Paputsevich, Karatkevich 135] and distinguish three sub-skills linked between themselves in a causal manner: analytical and critical skills, the ability to find appro-

priate information, and the ability to develop knowledge in a subject field in a rather short time, the latter two actually corresponding to data-mining competence.

Let us note that, in the case of medical translation, or any type of LSP translation, the following four competences: translation service provision competence, data-mining competence, intercultural competence and technological competence are not likely to be different between domain experts (such as health professionals) who translate and translation students, with the obvious caveat that professionals in a field do not need to mine for much data in order to increase their thematic competence since they are well-versed in the subject they are translating about. The remaining competences important for LSP translators need to be discussed in more detail. These are:

- **thematic competence**, or knowledge of the concept system or systems underlying a technolect
- **language competence**, which needs to be re-conceptualised as follows:
 - **linguistic competence in L1**, or command of the general language (LGP) and language for specific purposes (LSP, technolect) in question in one's native language
 - **linguistic competence in L2**, or command of the foreign LGP and technolect.

Let us note that thematic competence needs to be regarded as distinct from terminological competence [cf. e.g. Šarčević 1997:113]. Thematic competence is the knowledge behind the terms and is usually not linked to a particular language, while terminological competence is an element of technolectal linguistic competence and is specific to each of the languages a translator knows. Let us also note that the notion of linguistic competence covers more than command of vocabulary and grammar. Of great importance for a translator, especially an LSP translator, is familiarity with textual patterns, or genre conventions.

The aim of Medical English courses as taught to medical students is to provide the tools (terminology, collocations) to enable students to communicate using the language of medicine. From a cognitive view point, students in these classes express conceptual content that they generally already know or that they are learning very fast through the medium of L1. Along with learning medical terminology and collocations of L2, they need to revise their grammar, with some emphasis on structures typically associated with languages for specific purposes, such as the passive voice. Ultimately, students are empowered to produce texts relating their own experiences with individual patients, whether in writing up medical records or in oral

communication with other members of their medical team, or expressing professional generalisations, as in scientific articles. They acquire the ability to use the LSP of medicine creatively in L2 as well as in L1. Since one of the defining characteristics of LSPs is that they are not acquired with LGP, but need to be taught [Cabre 1999:65], health care personnel and medical students may be regarded as native speakers of the LSP of medicine. In this metaphor, students learn medical language from their teachers and textbooks.

A course in Medical Translation, on the other hand, serves to enable students to render medical texts written by other people into another language. Students are not supposed to encode their own conceptual content in texts. They will never need to use the LSP of medicine creatively. They may be said to be aiming to achieve the level of near-native proficiency in the LSP of medicine. As regards course content, students need to be presented the conceptual system together with its surface realisations (terminology) in two languages. They also need to distinguish medical from non-medical usage in L1. Medical students may have the same problem initially, but they are exposed to such large amounts of medical usage from Day 1 of their medical studies that it is not much of a concern to them.

Importantly, due to time constraints, courses in medical translation, or, by and large, in any other speciality of LSP translation, do not usually involve overt teaching of the specific background knowledge. Students generally acquire the technical knowledge in a non-systematic manner through the texts that they translate and any mining for information that they do on their own while working on a translation task in order to find the right target language equivalents of words and phrases. That is, they are mostly exposed to term-using texts [Leitchik, Biesiekirska 1998], which contain a selection of terms related to a narrow topic that the text is about. They rarely encounter term-presenting texts [Leitchik, Biesiekirska 1998], such as textbooks or monographs, which present a systematic description of an area of knowledge.

Re-expressing the above in terms of the three components of an LSP translator's skills outlined earlier, the following table can be used to summarise the differences.

Table 1. Acquisition of skills related to medical translation.

Skill	Medical student	Translation student
Thematic competence	acquired at a fast rate in massive amounts in L1 via direct instruction, books and also in practical settings (bedside teaching)	acquired in L2 rather than L1, from term-presenting texts (synopses) and term-using texts (translation samples)
Technolectal linguistic competence in L1	acquired by immersion in subject matter-centred texts presenting the concept system	acquired during classes and by additional reading at home (mostly focused on specific translation tasks)
General linguistic competence in L2	often acquired earlier to an intermediate level, revised during the course	acquired earlier to an upper-intermediate/advanced level
Technolectal linguistic competence in L2	acquired during the course and by self-study efforts intended mostly to increase one's thematic competence	acquired during the course and by self-study efforts intended mostly to help with specific translation tasks
ULTIMATE COURSE OBJECTIVE	enable students to communicate their own content in L2	enable students to render someone else's L1 content in L2 and vice versa

Medical students are thus exposed much more intensively to descriptions of medical knowledge in medical texts. They also use this knowledge in real life situations, "learning by doing", while translation students, with the possible exception of circumstances when they can exercise their first-aid skills, experience medicine vicariously or as patients. Needless to say, the former approach leads to much better consolidation of subject knowledge.

The table also shows that a course in medical translation must necessarily concentrate both on the conceptual and linguistic aspects of medical texts. One tenet of translation theory holds that a translated text must sound natural. With regard to LSP texts, which are more structured and conventionalised than literary texts, naturalness may be interpreted as compliance with the terminological and textual conventions of the genre in the target language text. Metaphorically speaking again, LSP translators are supposed to TALK LIKE THE PROS, with an emphasis on LIKE. In a way, this is similar to the work of actors, who need to behave like the characters they play would, but not necessarily think like them. It is actually quite unrealistic to as-

sume that an actor playing the role of a physician taking a patient's history will actually reason like a physician would. Similarly, a translator translating an employment contract need not busy him- or herself with deciding whether the working conditions offered are fair, etc.

All this prompts the question how much attention ought to be devoted to the conceptual vs. linguistic dimension of LSP translation during a medical translation course.

Let us repeat that medical translators are likely to encounter only snippets of the conceptual system of medicine in texts and, unless they are hired to translate a range of monothematic publications, they are not likely to be exposed to a comprehensive textual representation of the concept (sub)system of medical knowledge and absorb it by doing something about it.

The question of thematic competence has been a controversial point in the LSP translation-related literature. Opinions range from "it is all in the dictionary" to "only a subject specialist can translate a text properly". The former extreme reflects the unity of medical knowledge, or actually the unity of conceptualisation of facts about the human body, health and disease, in all cultures subscribing to the dogmas of so-called Western medicine. It is also pointed out that, as most medical terminology is based on Latin and Greek stems, it is easier than in the case of other LSPs to find target language equivalents of terms. The specialist-only attitude is again reminiscent of the concept of *native vs. non-native proficiency* in a language, according to which only subject specialists are able to use a particular language for specific purposes properly. It is no wonder that this stance is popular among medical professionals, as witnessed in some papers delivered at the conference, who strengthen their argument by stating that, since patients' lives are at stake, translation must not be left to lay people. This may be countered rhetorically by noting that many a legal document decides the fates of people and then pointing out that such documents are, if need be, normally translated by court-appointed translators, not many of whom are graduates in law. However, a more convincing argument would certainly be derived from an informed review of LSP translator competences. To this end, in addition to the discussion above summarised in Table 1, let us divide, after J. Wakabayashi (1995:356), a translator's knowledge into background knowledge (i.e. thematic competence), terminology and phraseology.

How much should translators know about medicine? We have shown above that they are not likely to ever study any medical domain as comprehensively as doctors do, let alone the entire conceptual system. This is because the textual input they are going to be exposed to is not as comprehensive as medical students'. However, this

also paradoxically reduces the gap between what they do know and what they need to know in order to translate a text. The answer is not "either you know as much as a doctor does, or you cannot translate medical texts". It is "you should know enough to reconstruct the conceptual network of the original and render it in a faithful manner in the target text".

Familiarity with the subject matter generally means knowing the concepts behind the terminology since most subject knowledge is contained in established concepts represented by terms.

Decoding the conceptual network of an LSP text does not rely exclusively on the reader's previous knowledge. LSP texts present knowledge in a straightforward way, with no hidden, metaphorical meanings and particular emphasis on explicitly presenting the logical relationships between the concepts/objects that are referred to [Lukszyn 2005:127].

Furthermore, at least some terms are intelligible to the uninitiated reader who possesses general knowledge. The following sentence may serve as an illustration: "*The enzyme converts pyruvate to lactate*".

General knowledge tells one that an enzyme is a substance that facilitates chemical reactions in the body. The sentence will be understood as "The enzyme changes one substance into another in a chemical reaction". Similar straightforward sentences abound in LSP texts.

However, clearly enough, not all sentences are so easily understood and contextual cues sometimes fail to be helpful, particularly when the verb does not occur in LSP and is not made up of Graeco-Latin components. In such cases, the translator can use a dictionary, but familiarity with the subject matter helps one translate faster, which has numerous benefits associated with it. Even when a term is readily translated, as in *adrenolytic* (Eng.) – *adrenolityk* (Pl.), awareness of what an adrenolytic is aids the translator in finding appropriate collocations and synonyms: since this is a type of drug, phrases like *adrenolytic activity/effects*, *to administer an adrenolytic* or, indeed, *adrenolytic drug* are bound to be correct.

The aim of explicitly teaching thematic content in an LSP translation course is two-fold: 1) to facilitate comprehension of the conceptual structure of the SL text, and 2) to expedite the retrieval of associated terminology and, by that, to reduce translation time. An additional benefit from being familiar with the concepts behind the expressions used in a text is the ability to detect and correct distortions due to poor spelling, especially of abbreviations and proper names, and poor quality texts (e.g. handwritten).

It is not possible, in my opinion, to quantify how much knowledge and what concepts a medical translator in training ought to internalize to translate efficiently. Instead, I shall offer a few qualitative guidelines based on the course in medical translation taught at IKLA.

I believe that the translation student needs to be exposed to entire subsystems of medical concepts. This will leave him or her with a holistic view of the concept field. In clinical medicine, concept fields are conveniently presented divided by organ system. A systematic presentation of the basics of medical knowledge about a particular organ system may include the following aspects: anatomy & physiology, manifestations of disease, diagnostic work-up, and treatment. The medical translation course at IKLA thus includes fairly comprehensive texts in English about six major organ systems (cardiovascular, digestive, nervous, respiratory, urinary, and musculoskeletal). The texts are several pages' long and useful terms are bolded. A fragment of a text is reproduced below (Fig. 1).

Treatment of *H. pylori* usually leads to clearing of infection (eradication of the bacterium), relief of symptoms and eventual healing of ulcers.

A **perforated peptic ulcer** [przebiecie ściany narządu przez wrzód/perforacja wrzodu] is a **surgical emergency** [stan nagły w chirurgii] and requires surgical repair of the **perforation** [perforacja-czyli przebiecie wrzodu do jamy otrzewnej]. Most bleeding ulcers require endoscopy urgently to stop bleeding with **cautery** [przżeganie], injection, or **clipping** [klipsowanie]. **Pyloric stenosis** [zweżenie odźwiernika] is another complication from peptic ulcer disease.

Ileus [niedrożność jelit] is a disruption of the normal propulsive gastrointestinal motor activity due to non-mechanical causes. In contrast, motility disorders that result from structural abnormalities are termed **mechanical bowel obstruction** [mechaniczna niedrożność jelit]. **Postoperative ileus** [pooperacyjna niedrożność jelit] is a temporary **paralysis** [porażenie] of a portion of the intestines typically after an abdominal surgery. Since the intestinal content of this portion is unable to move forward, food or drink should be avoided until peristaltic sound is heard from auscultation of the area.

Nil per os [nic doustnie] (**NPO** or "Nothing by Mouth") is mandatory treatment in all cases.

Nasogastric suction [odsysanie nosowo-żołądkowe] and **parenteral feeds** [karmienie pozajelitowe] may be required until passage is restored.

Strangulation [uwięźnięcie] – a surgical emergency in which a **loop of intestine** [petla jelitowa] or fatty tissue becomes tightly trapped and loses its blood supply, which can result in an obstruction of intestinal flow and/or gangrene.

Fig. 1 Fragment of a text presenting the digestive system with bolded terms and Polish equivalents

The choice of terms and issues to present is based on available texts about a particular organ system, but also on my experience as a translator: I include terms that I have often encountered in texts I have translated. A group of students is assigned the task of providing Polish equivalents for these and, following a review by the teacher, the text-glossaries are distributed among all students in the group and discussed in class. During the discussion, certain terms are highlighted, for example, because of some peculiarities of their Polish equivalents or in order to link the underlying concepts to other concepts when such links are not immediately evident from the text. Additional terminology is sometimes presented that is not tied to a particular organ system. For example, the difference between *hypertrophy* and *hyperplasia* in the context of *benign prostatic hypertrophy/hyperplasia* in the presentation of the urinary system became a starting point for introducing such related terms as *dysplasia*, *neoplasia* or *anaplasia* as well as *proliferation*.

It is my hope that students will keep these texts for future reference, knowing that they can find a concise but quite comprehensive synopsis of the field in question there and thus get a broader context for the text they are translating. However, even more important is that they retain what they have read. There are certainly a large variety of sources available where one can find a solution to a particular terminology problem, from traditional printed books to WWW sites for medical professionals or patients to medically themed video clips, and students should learn to use those, but non-reliance on internalised information is uneconomical: the translator works more slowly. A translation course should therefore contain solutions serving to enhance retention of thematic knowledge. In my opinion, this is best achieved by helping students to understand links between concepts.

Relations between concepts are of three types: generic, partitive, and associative [ISO 704:2009]. A generic relation is represented by the phrase *is a type of*, as in "*Pharyngitis is a type of upper respiratory inflammatory condition*". A partitive relation is represented by the phrases *is part of*, as in "*A pulmonary lobe is part of a lung*", or *is made up of*, as in "*A pulmonary lobe is made up of segments*". Associative relations pertain to all other relations, basically those between objects in the real world, for example, *teacher-student*, or *pen-writing*. The three types of concept relations are illustrated in Figure 2.

It is quite clear to see that, in graphs of partitive and generic relations, the concepts can be linked in one way only: a superordinate term links to a number of subordinate terms representing subcategories (in generic relations) or components (in partitive relations). Links between subordinate terms do not reveal new information about the world: how are apples related to bananas other than being different kinds of fruit (intermediate categories are omitted to simplify the point of this argument,

i.e. that there is no direct relation between apples and bananas). On the other hand, networks of associative relations are more complex. Concepts linked on this basis do not only form unidirectional strings. Visual representations of associative relations look like a tangle of arrows, reflecting the complexity of the world. They are called ontologies. Strings of concepts linked by various associative relations, as in Fig. 3, involve concepts from different ontological categories.

Such examples show that learning associative relations is quite clearly the easiest way to gain a broader understanding of the conceptual system of a field. After all, one does not come to understand medicine by being able to list all varieties of pneumonia or all elements making up an endoscope, but by being aware of what pathogens cause these forms of pneumonia and what examinations and devices are useful in diagnosing them. The course of medical translation at IKLA places some emphasis on the learning of associative relations with a view to helping students acquire a more comprehensive picture of the medical domain they are learning about. This is done by such obvious moves as highlighting associative relations as information is

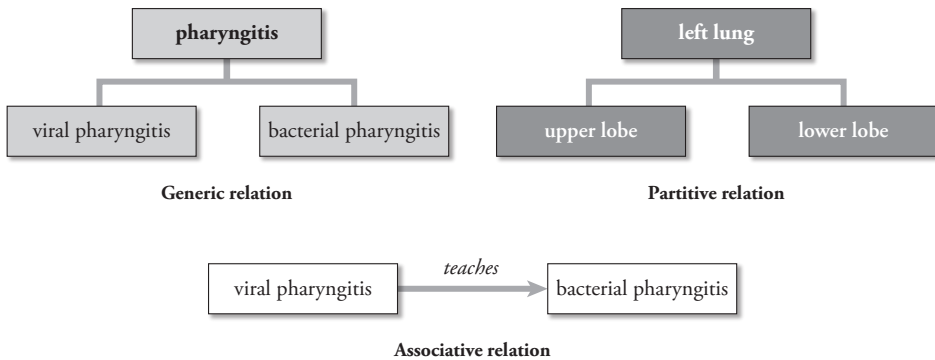


Figure 2. Types of concept relations

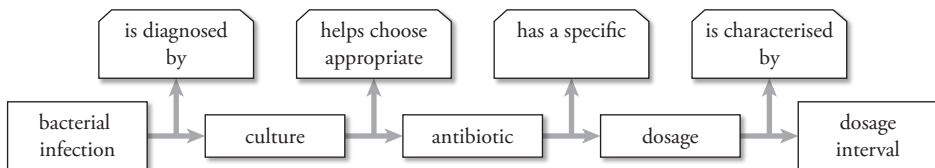


Fig. 3 A string of associative relations. Note the variety of relation types between the concepts.

I. Translate the following into Polish. You must provide 1 point's worth of 'other information', but any more extra info will give you bonus points.

English term	Polish term	Any other information?
basal ganglia	jądra podstajowe	basal ganglia we found the medulla one type of neuroimaging / MRI, SPECT, PET (or CAT)
PET	pozyton emission tomography	basal ganglia the brain has foreign substances, some proteins, (M)edullary one of the most important properties just as a brain activity, etc.
blood-brain barrier	bariera krwi mózgu	known as the peripheral nervous system
volume of distribution	objętość dystrybucji	one of the chemical bases
peripheral neuropathy	neuropatia obwodowa	chemical compound found in drugs (drugs) at the end of the nerve
oculomotor nerve	nerw okoruchowy	one of the cranial nerves
magnesium stearate	stearynian magnezu	chemical compound found in drugs (drugs) at the end of the nerve
2 mg IM, b.i.d.	2mg IM, b.i.d.	2mg, intramuscular twice a day

IM - type of concentration at the end of the nerve
b.i.d. - twice a day
b.i.d. - twice a day

II. Translate the following into English. Other instructions as above.

Polish term	English term	Any other information?
symulant	malignant	basal ganglia the brain has foreign substances, some proteins, (M)edullary one of the most important properties just as a brain activity, etc.
zjawisko pierwszego przejścia	first-pass metabolism	known as the peripheral nervous system
kora przedczołowa	prefrontal cortex	one of the chemical bases
pozapajkowe zapalenie nerwu wzrokowego	medulla oblongata	chemical compound found in drugs (drugs) at the end of the nerve
rdzeń przedłużony	medulla oblongata	one of the cranial nerves
sacharoza	sucrose	chemical compound found in drugs (drugs) at the end of the nerve
tylny płat przysadki mózgowej	posterior pituitary	one of the chemical bases
szczelina synaptyczna	synaptic cleft	chemical compound found in drugs (drugs) at the end of the nerve
hydroksypromylometyloceluloza	hydroxymethyl methylcellulose	chemical compound found in drugs (drugs) at the end of the nerve
roztwór do stosowania miejscowego	solution for topical use	chemical compound found in drugs (drugs) at the end of the nerve

III. Answer the following questions.

Fig. 4 Fragment of a test showing abundant additional information supplied by a student. Marks awarded for translation are shown to the left of the plus signs and marks for additional information to the right

presented or asking revision questions that probe into such relations during work on a translation, but also, and perhaps most importantly, by encouraging the retrieval of such relations during tests. To that end, sections of tests devoted to translation of individual terms and phrases contain space for writing additional information about the terms and bonus points are awarded for this that may help achieve a better overall mark. An example of a completed test with additional information provided and marked is shown in Fig. 4.

However, apart from information that students enthusiastically provide, there are questions that need to be answered obligatorily. Those questions probe issues that I feel students must know about that particular area of medicine. A few sample ques-

tions referring to the nervous system and summaries of medicinal product characteristics are provided below:

What are Brodmann's functional areas? Why are they called functional?

What is the difference between paralysis and paresis?

Name four cranial nerves in English and Polish (no numbers, please).

Name four drug properties investigated in pre-clinical testing, in English and Polish.

It is not uncommon that a student gets a very good mark on account of the additional information he or she has provided, but fails the obligatory questions part and so has to re-sit that part.

Terminology and phraseology training, of necessity, concerns both English and the students' native language. Since medicine is an area of life that practically everyone has been exposed to and medical issues are communicated in LGP using a word stock that may differ from official terminology, it is important that students are taught to realize that texts for patients may not contain appropriate terminology, so that they should not use "medicoid" words and phrases, also called submedical in the literature [Brunt 1987]. In Polish, this primarily – and paradoxically – concerns words of Latin and Greek origin, which look very medical, but are actually not used by doctors, such as *chroniczny* or *epilepsja*. This is paradoxical as it is exactly those Latinate terms that have been pointed to as a factor making medical translation easier than other types of technical translation. While they seem ready-made equivalents of the English *chronic* and *epilepsy*, official Polish terminology in these and many other cases uses indigenous words, viz. *przewlekły* and *padaczka*. Cases of determinologisation or terminological distortion also exist; for example, *pęcherzyk żółciowy* (literally "gall vesicle"), the term for the gall bladder, has its non-professional equivalent *woreczek żółciowy* ("gall sac"), and *zapalenie zatok* ("inflammation of the sinuses"), the non-professional term for sinusitis, should be *zapalenie zatok przynosowych* ("inflammation of the paranasal sinuses"). Rooting out such non-professional terms is as important for future translators as learning the conceptual framework. As regards phraseology, an example of a difficulty is the collocability of *wywiad*, the Polish word for *history*. It happens to be homonymous with the noun for *interview* and the phrase *to take a history* is therefore commonly mistranslated as *przeprowadzić wywiad* (lit. *carry out an interview*), while the correct collocation is *zebrać wywiad* (lit. *collect a history*).

Terminology is also taught with a pattern-oriented linguistic approach in mind rather than with the aim of the students acquiring concept-specific knowledge. Students may be interested in finding out about the causes of hypocalcaemia or hyper-

kalaemia, but their translation skills will be served better if they know that names of such laboratory abnormalities are formed according to the pattern *hypo/hyper+name of substance or chemical element*, mostly similar to the name that gave rise to its chemical symbol+(a)*emia*, the latter part referring to the blood, and that there are sometimes minor spelling differences between the English and Polish terms. They should also know that the names of similar abnormalities in blood count are formed with the suffixes *-osis* or *-philia* vs. *-paenia*.

Similarly, instead of teaching they names of particular viruses, they are taught naming patterns (*Morbillivirus*, *Hantavirus* etc.) and equivalents in the other language.

The notions of concept-specific and pattern-related information will now be presented in greater detail using the term *Lasegue test/sign* as an example. What I feel translation students ought to know about the concept behind that term is that it refers to a diagnostic test in orthopaedics that involves producing pain on raising the lower limb, while the exact indications, procedure and significance of findings are not actually required. Since it is not possible to familiarise students with all, or most, diagnostic tests, examples that do get included in the textual material should be used to present a number of usage patterns, thanks to which students learn how to handle such vocabulary units in target language texts. Such usage patterns include collocations with individual words as well as typical sentential formulae. In the case of *Lasegue test/sign*, pattern-related information includes:

- the collocation ‘*a positive/negative Lasegue sign*’,
- the truncated variant ‘*a positive/negative Lasegue*’, with the stylistic note that the truncated variant belongs to a more colloquial register,
- a reminder that the Polish equivalents of the two adjectives are indigenous, i.e. ‘*dodatni/ujemny*’ rather than ‘*pozytywny/negatywny*’;
- the phrases ‘*the patient had a positive/negative Lasegue*’ and ‘*his/her Lasegue was positive/negative*’
- the statement that these collocations and formulas are equally applicable to most other tests in orthopaedics and other medical specialities. Some examples should also be provided.

An additional note would point to the frequent misspelling of *Lasegue* as *Lase-q-ue* in Polish texts, which the students should now be able to correct in translation.

Another example of an emphasis on usage patterns is the nomination of scoring systems, used to measure, e.g., disease severity. Their names in English are usually more condensed than in Polish. Let us take the imaginary example of a scale of symptom severity devised by someone called Smith and convey the information that a pa-

tient's symptoms place him in the third class according to this scale. In English such a patient will be referred to as *a Smith Grade 3 patient*, which is a little cryptic unless you know what a Smith grade is. This is terminological compression – when the wording of a term does not reveal its meaning, i.e. the concept behind it. The Polish equivalent will be more transparent and the meaning will be clear even to the lay reader (though it will not, of course, reveal whether Grade 3 is more or less favourable than Grade 2 or whether the patient is in danger). It will read: *pacjent z objawami 3. stopnia w skali Smitha* [*patient with symptoms of the 3rd grade on Smith's scale*]. As the manner in which this condensation is achieved is fairly regular across scoring systems, presenting one (real-life) example and explaining the differences in detail should basically suffice to enable students to translate similar names appropriately in future texts.

The conception of pattern-oriented teaching extends to schemata for presenting information (genre templates). For example, a research paper usually follows the IMRAD format, and a description of a disease in a medical textbook will often include sections on aetiology, pathogenesis, clinical presentation, treatment, and prognosis. Students may use these templates to learn these basic concepts of clinical medicine, but a more important use is to organise their knowledge by helping them to memorise associated terminology. A sample set of terms associated with the infectious disease of measles and also fitting into the above-listed domains would be: *virus, drop-let infection, aerosol, upper respiratory mucosa, maculo-papular rash, Koplik spots, supportive treatment, SSPE*. Clearly enough, the relations between these concepts are again associative, or ontological. Exercises where students are asked to name a few terms related to a particular medical concept and describe the relations holding between them are therefore also included in tests.

However, obviously, not all information on medical terminology can be "patter-nised", the less so when terminology is to be taught in two languages. As indicated earlier, many English Latinate terms have Polish equivalents that are indigenous Slavonic words. Some of these are structurally identical to the English terms, others are not. Multi-word terms may similarly fall into one of four categories: similar in form (e.g. *invasive cardiology* – *kardiologia inwazyjna*), similar in structure (e.g. *malignant anaemia* – *niedokrwistość złośliwa*, where *anaemia* and *niedokrwistość* and *malignant* and *złośliwy* respectively correspond to the same concepts also in other terms) or differently formed (e.g. *extraaxial haematoma* – *krwíak przymózgowy*, where *przymózgowy* literally translates to 'paracerebral' and the prefix and stem do not have the meanings of *extra-* and *-axial*, respectively). Whether the Polish equivalent transfers or reproduces the English pattern or is an original designation is often unpre-

dictable, varying on a case-by-case basis, so a reasonable guideline would be to alert the students that they should find out on their own which form is prevalent.

The thematic syllabus of the course of medical translation includes the following areas, listed in chronological order: basic concepts of clinical medicine, laboratory work-up, infectious diseases, individual organ systems, and pharmacology.

The example of the teaching of the terms *hyperplasia/hypertrophy* described above shows that some general medical knowledge is presented in texts about particular organ systems. Another example is the concept of cancer staging/grading, which is discussed in association with gastric cancers, while autosomal/X-linked dominant and recessive modes of inheritance are presented in association with muscular dystrophies.

Interwoven with this thematic syllabus is a translation syllabus, concentrating on three main areas which I find to provide most of my medical translation work load: medical records (discharge summaries, etc.), drug-related documents (SPCs, patient leaflets), and research articles (including proof-reading). Early on the focus is on medical documentation, with sample examination reports in Polish and English. These are linked to individual organ systems: presentation of the cardiovascular system is followed by translation of sample ECG and cardiac ultrasound reports, while radiographs and computed tomography imaging are first discussed when the students are working on the respiratory system (it is also at that point that basic radiographic terminology is introduced). The importance of using parallel texts in the target language is emphasised throughout the course. The translation of research articles is undertaken towards the end of the course as such tasks require command of different phraseology than that associated with describing organ systems.

Self-study skills are not neglected either as most translation tasks require the students to find out about unfamiliar concepts, but that is not different from what happens during other LSP translation courses. Students are also supplied with a list of general medical reference works and encouraged to read professional medical texts regularly in their own time. Multimedia use is also promoted as popular video sharing sites such as youtube.com offer a large variety of medicine-related video clips.

This article will probably not bridge the gap between professionals who translate LSP texts in their domains of competence and trained LSP translators with a linguistic background. My goal here was to show how the lack of subject knowledge on the part of LSP translators can be remedied by exposing them to term-presenting texts during their training and encouraging them to them take constant care to develop their medical competence. Let me also invoke and re-interpret the three com-

ponents of thematic competence discussed briefly earlier on: analytical skills (reading comprehension skills serving to reconstruct the author's line of reasoning), the ability to find information (to fill any remaining gaps in the translator's knowledge: data-mining, incl. Internet skills), and the ability to develop appropriate subject knowledge within a short time (which will become progressively easier over time as a translator accumulates knowledge from every text he or she translates). The final reminder, and the final conclusion, is that translating a particular medical text does not require familiarity with the entire conceptual system of medicine and so a career in medical translation should not be closed for those without a license to practise the art of treatment.

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Aktualizacija i prikaz prvog teksta o medicinskoj etici na engleskom jeziku¹

SAŽETAK

Povjesničari medicinske etike suglasni su da je prvi objavljeni tekst o medicinskoj etici na engleskom jeziku *Observations on the Duties and Offices of a Physician and on the Method of Prosecuting Enquiries in Philosophy*, koji je 1770. objavio liječnik i filozof John Gregory (1724.-1773.).

Aktualizacijom tog djela želi se istaknuti značaj tog djela za nastanak Percivalovog medicinskog etičkog kodeksa i pokušati dokazati povezanost etičkih vrijednosti, mišljenja i standarda s povijesno-kulturnim uvjetima razvitka medicine određenog doba. U skladu s time, u prvom dijelu rada iznose se osnovni biografski podaci o Johnu Gregoryu i govori o utjecaju mišljenja i stavova Francisa Bacona i Davida Huma na vrijednosna određenja i humanističku orijentaciju u Gregoryevom radu. U drugom dijelu rada prikazuje se razvitak medicine u XVIII. stoljeću, a u trećem dijelu postupkom aktualizacije predstavljaju se temeljne Gregoryeve poruke - koje su utjecale na etičku standardizaciju medicinsko-etičkih pitanja.

Ključne riječi: medicinska etika, kodeks medicinske etike, paternalizam, etičke vrijednosti.

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Upoznajmo Johna Gregoria - liječnika, filozofa i autora prvog teksta o medicinskoj etici na engleskom jeziku²

John Gregory rođen je 3. lipnja 1724. u Aberdeenu³, danas trećem po veličini gradu u Škotskoj. Na odabir njegove profesije i vezu medicine i filozofije utjecale su činjenice da mu je otac James Gregorie⁴ (1674.-1733.) bio poznati profesor medicine na King's College, Aberdeenu od 1725 to 1732, inače prvi liječnik s kojim je počela obiteljska tradicija obrazovanja liječnika⁵. Na vezu s filozofijom i obrazovanje unutar je utjecao je njegov rođak - poznati škotski moralni filozof i profesor moralne filozofije na Sveučilištu u Glasgowu - Thomas Reid⁶. Za ovaj rad od važnosti je spomenuti da su Reidove ideje o moralnoj savjesti, dužnosti i odgovornosti utjecale na sadržaj djela čije predstavljanje slijedi. John Gregory završio je školovanje s diplomom King's College Sveučilišta u Aberdeenu. 1742. s majkom se preselio u Edinburgh zbog studija medicine. Tu se sprijateljio s Markom Akensideom, pjesnikom i liječnikom, koji je napisao disertaciju pod naslovom *The Original Band Growth of the Human Foetus* na Medicinskom fakultetu u Leydenu 1741⁷.

John Gregory je po stjecanju diplome postao profesor filozofije na King's Collegeu. Poučavao je i matematiku, moral i prirodne znanosti. Istovremeno je počeo prakticirati medicinu. Posao liječnika napustio je 1749. Dvije godine, od 1754. do 1756. živio je u Londonu gdje se u intenzivnom druženju s Johnom Wilkesom, Charlesom Townshendom, Georgeom Lytteltonom i Elizabeth Montague⁸ - upoznao s aktualnim london-skim društveno-političkim i kulturnim zbivanjima i aktivno sudjelovao u njima.

² Podatke o životu i radu Johna Gregoria skupio je i objavio William Smellie u knjizi *Literary and Characteristical Lives of John Gregory, M.D., Henry Home, Lord Kames, David Hume, ESQ. and Adam Smith, L.L.D.* Knjiga je objavljena zahvaljujući Alex. Smellie ... Bell & Bradfute, J. Dickson, W. Creech ... i još jedanaestorici autora, izdavač je bio Edinburgh; G.G. & J. Robinson, Cadell & Davies, T. Kay, and R. Ogle, a tiskana je u Londonu. 1800. - U pdf je dostupna na http://books.google.hr/books/download/Literary_and_characteristical_lives_of, pristup 19.7.2012.

³ Grad često zovu i Granitni i Srebrni grad sa zlatnim pijeskom budući da je od 18-20 st. upotrebljen granit iz obližnjih rudnika u kojem su turmalini (vrsta minerala- poludragog kamena) svjetlucali poput srebra. Danas ga zovu i naftnom prijestolnicom Europe jer je u Sjevernom moru 1970. - otkrivena - nafta. Podaci preuzeti s Aberdeen. <http://hr.wikipedia.org/wiki/Aberdeen>, pristup 22.3.2012.

⁴ John Gregory je počeo izgovarati svoje ime kao Gregory, a ne izvorno Gregorie negdje od 1754. kada se s obitelji, suprugom Elizabeth Forbes (s kojom je imao tri sina i tri kćerke) preselio u Londonu. - Izvor: John Gregory (moralist) http://en.wikipedia.org/wiki/John_Gregory_%28moralist%29, pristup 22.3.2012.

⁵ Izvor: MS 2206-Unoversity of Abardeen, Archival Database. <http://calms.abdn.ac.uk/Dserve/dserve.exe?dsqIni=Dserve.ini&dsqApp=Archive&dsqDb=Catalog&dsqCmd=show.tcl&dsqSearch=%28RefNo=%22MS%202206%22%29>, pristup 23.3.2012.

⁶ O njegovom životu i djelu više na: Thomas Reid. http://en.wikipedia.org/wiki/Thomas_Reid, pristup 23.3.2012.

⁷ O životu i djelu Marka Akensidea više na: Mark Akenside http://allpoetry.com/Mark_Akenside, pristup 23.3.2012.

⁸ O njima su dostupni sljedeći podaci: John Wilkes bio je engleski radikal, novinar i političar (1725.-1797.). Prvi put je bio izabran za člana parlamenta 1757., poznat po uvođenju prvog zakona o parlamentarnoj reformi, podupiranju pobunjenika za vrijeme Američkog rata za neovisnost i satiričnom prikazu škotske vlasti. Charls

1756 postao je član Royal Society-a. U Aberdeenu - postaje jedan od suosnivača takmošnjeg filozofskog društva⁹. S medicinskom praksom Gregory je nastavio nakon povratka u Edinburgh (1764.). Dvije godine nakon postao je prvi liječnik škotskog kralja Georgea III. i član Sveučilišta u Edinburghu. Tu je počeo - seriju predavanja iz medicine (1767. do 1769.) i prvu među njima 1770. objavio je pod nazivom *Observations on the Duties and Offices of a Physician and on the Method of Prosecuting Enquiries in Philosophy* (1770)¹⁰. Zbog sadržaja koji ga čini, metodološkog pristupa, humanističkog ozračja i naglašene vrijednosne orijentacije u medicini proglašeno je prvim filozofskim sekularnim medicinsko-etičkim djelom na engleskom jeziku. John Gregory umro je - i sahranjen u - Edinburghu 1773.

Njegov student Benjamin Rush prenio je i nastojao realizirati temeljne Gregoryeve ideje u *Novom svijetu*¹¹.

Gregory-Bacon-Hume

Francis Bacon i David Hume¹² ostvarili su snažan utjecaj na Gregoryevo propitivanje medicine. Temeljem proučavanja *Novog organona* Francisa Bacona Gregory se zalaže za primjenu eksperimenta i na njemu dokazanih tvrdnji svojih suvremenika -

Townshend, također, engleski političar (1727.-1767.), kritičar premijera i zagovarač uvođenja poreza na staklo, boju, papir i čaj. Georg Lyttelton (1709.-1773.) - bio je političar, državnik i - zaštitnik umjetnika. Među njima posebno Alexandera Popea, britanskog pjesnika poznatog po satiričnom prevođenju Homerovih djela, Henrya Fieldinga novelistu i dramatičara, i Jamesa Thomsona poznatog po poemi *The Seasons*. - Elizabeth Montagu (1718.-1800.), bila je britanska društvena reformatorica, zaštitnica umjetnosti, literarna kritičarka, spisateljica i rado viđena gošća salona. Izvor: http://en.wikipedia.org/wiki/John_Gregory_%28moralist%29, pristup 22.3.2012.

⁹ Puni naziv društva bio je "Aberdeen Philosophical Society". Da je Gregory bio suosnivač društva piše u članku Ashworth, B., "John Gregory and the Background to Medical Philosophy". *The Journal of the Royal College of Physicians of Edinburgh*, 2003; 33:67-69. Do objavljivanja knjige - zbog koje je nastao ovaj rad - Gregory je objavio sljedeće knjige: *A Comparative View of the State and Faculties of Man, with those of the Animal World* (1765) i *Father's Legacy to his Daughters* (1761). Sadržaj prve čini analiza univerzalnosti ljudske prirode koju je, prema njegovom sudu - moguće otkrivati znanstvenim pokusima, a za najvažnije elemente ljudske prirode proglasio je razum i instinkt. Drugu knjigu napisao je - nakon smrti supruge Elizabeth - (1761.) i u njoj se bavio pitanjem edukacije ženske djece. Trideset godina kasnije - (1792.) - poznata feministica - Mary Wollstonecraft napisala je i svoju glasovitu knjigu *A Vindication of the Rights of Woman: with Strictures on Political and Moral Subjects*.

¹⁰ Inspiriran ovim djelom Strätling M. je Johna Gregorya proglasio jednim od osnivača moderne bioetike. Više u: Strätling M, "John Gregory (1724-1773) and his lectures on the duties and qualifications of a physician establishing modern medical ethics on the base of the moral philosophy and the theory of science of the empiric British Enlightenment", *Medicina Nei Secoli*, 1997; 983:455-75.

¹¹ Rush je u Edinburgh došao iz Pennsylvanije, a nakon studiranja odlazi u Philadelphiu gdje je radi kao profesor kemije i medicine. U svom radu aktivno se zalagao za primjenu Gregoryevih ideja, jednako tako bio je aktivan političar i potpisnik *Deklaracije o neovisnosti*. Izvor: Ashworth, B. "John Gregory and the Background to Medical Philosophy", *The Journal of the Royal College of Physicians of Edinburgh*, 2003; 33: 68.

¹² O Humeovom utjecaju na Johna Gregorya više u: McCullough LB. "Hume's influence on John Gregory and the history of medical ethics", *The Journal of Medicine and Philosophy*, 1999. Aug; 24(4):376-95.

liječnika praktičara. Eksperimentalnim postupcima, prema Gregoryu, medicina i liječnici - svladavaju bolest i služe općem dobru.

*Rasprava o ljudskoj prirodi*¹³ Humeovo je djelo koje je imalo značajan utjecaj na misli o medicinskoj etici koje je Gregory iznio u svojim objavljenim predavanjima 1770. Okosnicu Gregoryeog stajališta o - medicini i filozofiji prepoznajemo u uvođenju suosjećanja u odnos između liječnika i pacijenta. Humeovo tumačenje suosjećanja primjenjuje u odnosu liječnik-pacijent pri čemu ono postaje uvjet za uspostavljanje i razvijanje njihovog odnosa. Kroz cijelo djelo promiče ideju da postojanjem tog osjećaja liječnik ne gubi svoj autoritet, niti dovodi u pitanje veličinu liječničkog poziva, nego pomoću njega i s njim jasnije i lakše može odlučiti što je naveće dobro za pacijenta. Gregory, znači, ne mijenja položaj pacijenta u odnosu prema liječniku. Mijenja jedino metodu s kojom se osigurava poslušnost pacijenta. Zbog tog stava Gregory je proglašen utemeljiteljem novog paternalističkog odnosa u medicini, pri čemu se novo, odnosi na lik liječnika koji se od Hipokratovog razlikuje iskazanom suosjećanja prema pacijentu.¹⁴ Humeove misli koje su pomogle Gregoryu odrediti uspostavljanje i razvijanje, odnosno određivanje položaja pacijenta u odnosu liječnik-pacijent su:

- u moralno propitivanje i rasuđivanje treba uvesti osobna iskustva "običnog" čovjeka
- u edukaciji studenata govoriti o predodžbama i osjećajima, posebno nelagode koja može nastati u kontaktu s bolesnim čovjekom
- zaključke ne izvoditi temeljem dojmova, nego znanja o bolesti i razlozima nje-na nastanka
- ma koliko se slučajevi činili sličnim, nemaju isto rješenje jer će usporedba ukazati da se i pri malim razlikama slučajevi - ipak razlikuju što može utjecati na donošenje rješenja
- opasno je zaključivati iz navike i rutine jer to može dovesti do krivog zaključivanja

¹³ Hume, D. *Rasprava o ljudskoj prirodi*, preveo B. Nedić (Veselin Masleša, Sarajevo, 1983.). Inače iscrpna analiza Humeove filozofije, i posebno razlikovanje samilosti, suosjećanja i senzibiliteta dio je doktorskog rada - *Razvoj bioetičkog senzibiliteta u hrvatskom društvu* koji je obranila Ivana Zagorac na Filozofskom fakultetu u Zagrebu 7.2.2012.

¹⁴ Na ocjenu da je John Gregory uvođenjem samilosti u odnos liječnik - pacijent osnivač "primijenjeno-etičkog modela" u medicini ili bolje reći praktične medicinske etike koju su dali autori Baker, R., i McCullough u svom članku "Medical Ethics' Appropriation of Moral Philosophy: The Case of the Sympathetic and the Unsympathetic Physician", *Kennedy Institute of Ethics Journal*, 2007. Vol. 17, N° 1. , 3-22. , reagirao je - Beauchamp, TL. u članku "History and theory in applied ethics", *Kennedy Institute of Ethics Journal*, 2007 March; 17(1):55-64. U tom članku Beauchamp ističe da je izraz praktična etika upotrebljavao Thomas Percival, autor prvog medicinsko-etičkog kodeksa te da su djela Immanuela Kanta primarni povijesni izvori za primijenjenu i praktičnu etiku .

- medicini je nužno znanje o matematičkim formulama i obrascima koji služe u postupcima dijagnosticiranja jer ih čine objektivnijima. Ista znanja posebno autoritet matematičkog izračuna nije prihvatljivo primjenjivati u odnosu prema bolesnom čovjeku¹⁵
- doživljaj boli je individualan i stoga različit¹⁶
- suosjećanje stvara blagonaklonost i želju za činjenjem dobra, stoga se ne mora biti u situaciji u kojoj se nalazi bolesna osoba da bi se s njom suosjećalo, dovoljno je to stanje zamisliti
- sav moral ovisi o osjećanima - pa tako i osjećaj dužnosti
- pravda je moralna vrlina
- moralno dobro i zlo se razlikuju u svim našim osjećajima
- gordost i uobraženost su poročne, suprotna je skromnost
- vrijednost samopoštovanja ima dvije funkcije: osposobljava osobu za poslove i pruža zadovoljstvo činjenja
- dobrota i dobročinstvo se uče
- marljivost, ustrajnost, strpljenje, pažljivost, umjerenost, štedljivost, odlučnost i postojanost postaju tek u činu u kojima se dokazuju kao korisne
- rasipnost, ljubav prema raskoši, neodlučnost i neizvjesnost vode u propast i onesposobljavaju za djelovanje
- mudrost i dobra pamet korisne su pojedincu, duhovnost i rječitost drugima
- važno je ono što sami procjenjujemo važnim, a ne ono što nam netko drugi određuje važnim.

Medicina XVIII. stoljeća kao ishodište i kontekst Gregoryjevih ideja

Utjecaj suvremene medicine na Gregoryja bio je nesumnjivo velik: naime, osim činjenice da je Gregory i sam formalnim obrazovanjem i praksom bio i moralni filozof i liječnik, njegov je odgoj do osme godine stajao pod utjecajem oca koji je bio profesor medicine, a kasnije polubrata koji je krenuo istom stazom (kao, uostalom, i Gregoryjev sin).

¹⁵ Postotak je danas dominantan dokaz postignuća medicine, opterećenosti liječnika, dostupnosti lijekova i medicinskih proizvoda, neželjenih posljedica, preživljavanja kod malignih oboljenja, kriterija dostupnosti aparata i uređaja i sl.

¹⁶ U tom pravcu danas se govori da su doživljaji privatni i da kao takvi zaslužuju biti promatrani, odnosno zaštićeni.

No, kako, zapravo, izgleda medicina Gregoryjeva doba? Možda bi stanje ponajbolje oslikala riječ "optimizam": znanstvena revolucija u XVII. stoljeću nosi, unatoč novim epidemijama i zdravstvenim problemima početka Setečenta, nadu, pa i oduševljenje.¹⁷ John Locke (1632.-1704.), prvenstveno znan kao filozof, medicinski je obrazovan i djelatnik¹⁸, s primarnim interesom u sekularnoj teoriji ludosti, dok David Hartley (1705.-1757.) promiče psihofiziologiju. Hermann Boerhaave (1668.-1738.) iz Leidena (učitelj Van Swieten, dakle, indirektno, i "našeg" Lalanguea)¹⁹ zacrtava vrlo utjecajni "hidraulički model" tijela čije zdravlje uvjetuje neometanom cirkulacijom osnovnih tekućina (što neodoljivo podsjeća na Hipokratovu "humoralnu doktorinu" ili ajurvedski sustav doša). Boerhaaveov će model donekle osporiti prvenstveno Albrecht von Haller (1708.-1777.) iz Göttingena, koji će težište staviti na podražljivost i druge nervne funkcije, baš kao i Škot William Cullen (1710.-1790.), Gregoryjev suradnik i takmac. Kirurg John Hunter (1728.-1793.)²⁰ uspješno kombinira intelekt i manualnu spretnost (njegov brat, William Hunter, 1718.-1783., učenik Cullena, bit će, kao i njegov učitelj William Smellie, 1697.-1763. – još jedan Škot – glavni poučavatelj opstetricije u Londonu), a povezanost teorije (prirodnih znanosti) i prakse (kako eksperimentalne tako i seciranja) zagovaraju i jatrofizičar Dubrovčanin Đuro Baglivi (1668.-1707.) i Talijan Giovanni Battista Morgagni (1682.-1771.).²¹ Ipak, javljaju se i otpori pojednostavljenom lamettriejevskom medicinskom materijalizmu: Georg Ernst Stahl (1659.-1734.) iz Hallea²² promiče "animizam"²³ utemeljen na bogomdanoj duši, a u umjereni "vitalizam" vjeruju i Robert Whytt (1714.-1766.) iz Edinburgha i mnogi drugi.²⁴

Ipak, tjelesni procesi nastoje se općenito kvantificirati, mjeriti, objektivizirati: Stephen Hales (1677.-1761.) izvodi pokuse s hemostazom, izračunavaju se čak oč-

¹⁷ O utjecaju prosvjetiteljstva na medicinu XVIII. stoljeća, vidi: Erwin Ackerknecht, *Geschichte der Medizin* (Stuttgart: Ferdinand Enkes, 1992), 97-102.

¹⁸ O filozofskoj analizi medicine koju je obavio John Locke inače prijatelj Thomasa Sydenhama (poznatog kao engleski Hipokrat) dostupni su postali podaci zahvaljujući člancima: Sanchez-Gonzales. "Medicine in John Locke's philosophy", *The Journal of Medicine and Philosophy*, 1990 Dec; 15(6):675-95., Williams AN. "Physician, philosopher and paediatrician: John Locke's practice of child health care", *Archives of Disease in Childhood*, 2006 Jan; 91(1):85-9.

¹⁹ Cf. Lavoslav Glesinger, *Medicina kroz vjekove* (Zagreb: Zora, 1954), 216-217 i 221-223.

²⁰ Usp. Sherwin B. Nuland, *Storia della medicina* [Doctors], s engleskog prevela Paola Frezza (Milano: Oscar Mondadori, 2004), 162-189.

²¹ Vidi odličan esej o Morgagniju u: Nuland, *Storia della medicina*, 138-161.

²² O suprotstavljenim idejama Stahla i Friedricha Hoffmanna (1660.-1742.) u Halleu, vidi: Lujo Thaller, *Od vrača i čarobnjaka do modernog liječnika: povijest borbe protiv bolesti i smrti* (Zagreb: Minerva, 1938), 259-260.s

²³ O Stahlu i animizmu, vidi: Wolfgang Eckart, *Geschichte der Medizin* (Berlin: Springer, 1990), 173-175.

²⁴ Roy Porter, "The eighteenth century", u: Lawrence I. Conrad, Michael Neve, Vivian Nutton, Roy Porter i Andrew Wear, *The Western Medical Tradition, 800 BC to AD 1800* (Cambridge: Cambridge University Press, 1995), 374-375 (371-475).

kivano trajanje života (koje se osobito koristi za izračun životnog osiguranja), objavljuju se profili pobola i statistike smrtnosti gradova, istražuju zakonitosti pojave zaraza.²⁵ Cullen se ističe i taksonomijom bolesti, kao i Erasmus Darwin (djed Charlesa Darwina; 1731.-1802.), a kritizira ga vlastiti učenik John Brown (1735.-1788.), koji zagovara ideju da je "bolest jedna a njeni oblici mnogi". Iz obitelji Chamberlenovih poteći će, nakon 1730., forceps,²⁶ a Leopold Auenbrugger (1722.-1809.) u Beču izumljuje 1761. perkusiju (koja će se, doduše, tek bitno kasnije raširiti kao metoda fizikalnog pregleda: u Britaniji, primjerice, liječnici tog doba pregled posve zanemaruju i naglasak stavljaju na anamnezu).²⁷ Intenzivno se istražuje mikroanatomija (anatomiju je s klinikom definitivno povezao Giovanni Battista Morgagni, 1682.-1779., autor utjecajnog udžbenika patologije) – osobito osjetilni organi, moždani živci, kapilare (Robert Hooke, 1635.-1703.), eritrociti, koža i dr.,²⁸ vrše se eksperimenti, polučujući čak i prve glasove protiv pokusa na životinjama (William Hogarth, 1697.-1764. i Samuel Johnson, 1709.-1784.). Ipak, pokusi daju općenito obećavajuće i nedvojbene rezultate, osobito s regeneracijom tkiva u nižih životinja (René Réaumur, 1683.-1757.; Abraham Trembley, 1710.-1784.; Charles Bonnet, 1720.-1793.; Lazzaro Spallanzani, 1729.-1799. i dr.). Prilog daju i praktičari medicine: John Huxham (1692.-1768.) piše o vrućici (koja se, po Hipokratovu napatku, smatra povoljnom i prirodnom pa je se ne suzbija), John Haygarth (1740.-1827.) o epidemiji tifusa, reumatske groznice i velikih boginja (protiv kojih se posvuda rabi inokulacija atenuiranog uzročnika, da bi, potkraj stoljeća, Edward Jenner, 1749.-1823., izveo uspješnu vakcinaciju), John Fothergill (1712.-1780.) sredinom stoljeća piše o difteriji i drugim bolestima londonske gradske sirotinje, itd.

Dakako, unatoč brojnim teorijskim inovacijama, novim postupcima i metodama liječenja i znanstvenoj potpori praksi, tragovi praznovjerja i upitne empirije u medicini XVIII. stoljeća nisu rijetki:²⁹ "kraljevski dodir" "liječi" škrofulozne u Engleskoj i, još duže, Francuskoj, baš kao i dodir ruke ili omče obješenog; Franz Anton Mesmer (1734.-1815.) pripisuje hipnotičkom transu ("animalnom magnetizmu") nadnaravne moći, "Američki Hipokrat" Benjamin Rush (1746.-1813.) zagovara kao panaceju puštanje krvi, James Graham (1745.-1794.) propagira seksualno pomlađivanje i vegetarijanstvo, a Škot George Cheyne (1671.-1743.) zadovoljava se holističkom,

²⁵ Ibid., 377.

²⁶ Cf. Frank González-Crussi, *Medicina: kratka povijest*, s engleskog prevela Marija Mrčela (Zagreb: Alfa, 2010), 134-136.

²⁷ Porter, "The eighteenth century", 403.

²⁸ O razvojnim putovima anatomije u XVIII. st., vidi: Dieter Jetter, *Geschichte der Medizin: Einführung in die Entwicklung der Heilkunde aller Länder und Zeiten* (Stuttgart: Georg Thieme, 1992), 256-257.

²⁹ Cf. Ante Škrobonja, "Osamnaesto stoljeće: racionalizam i prosvjetiteljstvo", u: Ante Škrobonja, Amir Muzur i Vlasta Rotschild, *Povijest medicine za praktičare* (Rijeka: Adamić, 2003), 117 i 120.

prirodnom medicinom (na tragu uspona kupališta u Brightonu, Bathu i drugdje, i vjere u ozdravljenje promjenom podneblja).

Jedan od najznačajnijih fenomena u znanosti XVIII. stoljeća je selidba avangarde iz Italije prema sjeveru Europe, osobito u Englesku, Škotsku, Nizozemsku, Francusku i Njemačku. U Edinburghu se 1726. (imenovanjem za profesora anatomije lajden-skog studenta, Alexandera Monroa Prvog, 1697.-1767., začetnika triju generacija koje će nekih 120 godina vladati edinburškom anatomijom) osniva medicinski fakultet s osobitim naglaskom na studij anatomije i "životinjske ekonomije" (fiziologije), na čelu s Whyttom i Cullenom, "najutjecajnijim profesorom anglofonog svijeta", koji vjeruje da je život funkcija nervne moći i da su sve bolesti u osnovi živčane.³⁰ U Edinburghu 1733.-1744. izlaze u više svezaka *Medical Essays Band Observations*, a 1754.-1765. *Essays Band Observations*, dok se u Londonu od 1757. do 1784. publiciraju *Medical Observations Band Inquiries*. Medicinski je animiran i nizozemski Leiden, u kojemu Gregory boravi 1745.: možda su na nj, izravno ili preko svojih djela ili učenika, ostavili traga tamošnji autoriteti poput Franciscusa Sylviusa (François de la Boë; 1614.-1772.), Boerhaavea ili Bernharda Siegfrieda Albinusa (1697.-1770.)? Najstarija britanska sveučilišta su se dugo opirala "konkurenciji": Kraljevsko liječničko društvo u Londonu tijekom gotovo čitavog XVIII. stoljeća branilo je pristup bilo kome tko nije diplomirao na Oxfordu odnosno Cambridgeu, premda je sjaj ovih učilišta u to vrijeme bio neusporedivo manji od puno mlađih Leidena i Edinburgha. No, možda i na sreću, moć Kraljevskog društva nije bila osobita: praksa je bila bitno neregulirana, a liječnici su odlično zarađivali, na jednostavnim operacijama ili privatnim tečajevima anatomije.

Prikaz djela *Observations on the Duties and Offices of a Physician and on the Method of Prosecuting Enquiries in Philosophy* (1770)³¹.

Knjiga ima 182. stranice - i sadrži uvod i dva dijela - predavanja. Metodički postupak aktualizacije je odabran zato što se njime pokazuje da se Gregoryeva medicinsko-filozofsko stajališta, mišljenja i stavovii i danas mogu povezati sa stvarnim događanjima u medicini, da ih se može primijeniti u rješavanju konkretne medicinsko-etičke situacije i, posebno, kao postupak kojim se upućuje na posljedicu

³⁰ Porter, "The eighteenth century", 395.

³¹ U doslovnom prijevodu *Zapažanja o dužnostima i službi liječnika i načinu vršenja istraživanja u filozofiji*. Za potrebe ovog rada korišten je ovaj naslov jer se već u njemu najavljuje ono što se prikazom knjige nastojalo postići. Autori kojima je bio cilj naglasiti Gregoryevu deontološku orijentaciju više su koristili drugo, dopunjeno, izdanje iste knjige: *Lectures of the Duties and Qualifications of a Physician* (1772). Obje knjige su u pdf dostupne na E-knjiga besplatno. http://books.google.hr/books?id=zPF5GEnDT9cC&pg=PA147&lpg=PA147&dq=Observation+on+the+Duties+and+Offices+of+a+Physician+and+on+the+Method+of+Prosecuting+Enquiries+in+Philosophy+%281770%29.&source=bl&ots=MtFj2ngnIx&sig=Xv5ZWuiaqVTcLJWzesYkRTROP8Y&hl=hr&sa=X&ei=4mtsT4_zHamu0QWoh-2_Bg&ved=0CBwQ6AEwAA#v=onepage&q&f=false, pristup 2.2.2012.

koju stvara primjena ideje i određenog stajališta³². Primjenjujući postupak aktualizacije valja naglasiti sljedeće:

a)

- U prvom dijelu knjige Gregory sustavno razlaže dužnosti liječnika. I za taj dio moglo bi se reći da predstavlja njegovo sadržajno gledanje na medicinu, dok se u drugom dijelu bavi sustavnom analizom metoda medicine.
- Kroz cijelu knjigu Gregory pokazuje koliki je zaljubljenik u medicinu, brani je od optužbi da je teško razumljiva i nedostupna, obraćanjem studentima medicine dokazuje kako medicina može biti jasna, razumljiva, dostupna i privlačna onima pred kojima je stjecanje medicinskog znanja i zvanja. Pri tome ne krije - čak što više ističe - da su liječnicima potrebna znanja o vrlinama i vrijednostima. Promotreno iz današnje perspektive navedeno dobiva još veće značenje s obzirom na činjenicu da Gregory kao i njegovi suvremenici, navedeni u prethodnom dijelu teksta, jasno određuju novo razdoblje medicine - medicine znanosti. Njegovi suvremenici to, kako je pokazano, čine praktičnim postignućima, otkrićima, primjenom novih medicinskih tehnika, istraživačkih postupaka i rezultata istraživanja. On, svjestan napretka koji određuje razvojni pravac medicine nastoji istaknuti da sve što se unutar nje događa - događa zbog toga što je medicina primjenom novih dijagnostičkih postupaka, jasno definiranim ciljevima i metodama istraživanja, posebice eksperimentom, priskrbila sebi znanstveno određenje.

b) Gregoryeve poruke koje aktualiziraju znanje, vještine, kompetencije i odnos liječnika prema pacijentu su:

- časno je biti liječnik i profesor medicine
- dostojanstveno je baviti se medicinskim poslom
- svakom čovjeku koji podnosi bol liječnik nesebično daje i primjenjuje svoje znanje i poklanja pozornost
- dužnost je liječnika raditi na tome da se ljudski život unaprijedi i učini sretnijim, odnosno činiti dobro za cijeli ljudski rod
- svako medicinsko pitanje u sebi sadrži jasne odgovore, ne ignorirati nijedno, svako zaslužuje pažnju

³² O postupku aktualizacije više u: Marinković, J. *Metodika nastave filozofije*, Školska knjiga, Zagreb, 1983. str. 38-40. S pedagoške točke stajališta čini se izazovnim primijeniti Gregoryevo razmišljanje u rješavanje slučajeva iz suvremene medicinske prakse, posebno u analizi i razlikovanju paternalističkog odnosa zdravstvenih djelatnika prema pacijentu.

- liječnik "radi" s ljudskim tijelom, ali ne smije zaboraviti da radi s čovjekom, jer jedino od njega i s njim može razjasniti eventualno moguće nejasnoće koje se mogu javiti u njihovom odnosu
- liječniku je nužno steći povjerenje bolesnika
- obrazovani je onaj liječnik koji uz materinji (engleski) i nužni latinski govori francuski i poznaje grčki jezik
- liječnik svoje dužnosti treba obavljati sa suosjećanjem
- suosjećanje³³ je sastavni dio - dobrobiti za pacijenta stoga je karakterna osobina liječnika
- liječnik je džentlmen s jasnim profesionalnim manirama
- moralne odluke nisu tehničke odluke, protive se egoizmu i kalkulacijama te zahtijevaju duboko prosuđivanje
- liječnici se prepoznaju po lijepom ponašanju
- iz suosjećanja nastaju vrijednosti i njima pripadajuće vrline liječnika
- istinsko dobro postiže se pravednim odnosom u koji je nužno uvesti društvene prilike u kojime se nalazi medicina i koje okružuju pacijenta
- osjećaji, znanje i dignitet sastavni su dijelovi medicinskog djelovanja u svim zemljama. Ne poznaju granice
- svaki liječnik je žestoki protivnik bilo kojeg oblika neobrazovanosti³⁴
- liječnik u obavljanju posla ne iskazuje privatni interes
- temeljne dužnosti liječnika su humanost, strpljenje, pažnja, diskrecija, tajnost i poštenje
- o edukaciji ovisi kvalificiranost, uspješnost i ugled - liječnika
- znanje prava i pravnih normi unapređuje rad liječnika, pomaže mu razlikovati dobro od lošeg
- medicinske odluke su kompleksne onoliko koliko su i slučajevi različiti
- svaki slučaj ima svoje rješenje
- u rješavanju slučaja nužno je uključiti i osobna prosuđivanja

Prikaz misli i iz njih proisteklih poruka jasno ukazuju koliko je Gregory svu svoju pažnju usmjerio prema ostvarivanju dužnosti liječnika u obavljanju liječničkog poziva. Pacijentu je jasno odredio ulogu - davanje informacija o njegovu stanju i bolesti.

³³ O aktualizaciji suosjećanja u kirurgiji i mogućnosti primjene izvornog Gregoryevog tumačenja kao vrline i dužnosti liječnika više u: Hasse, J. Th. W. "Perfection and compassion - essential in cardio-thoracic surgery", *European Journal of Cardio- thoracic Surgery*, 18 (2000) 635-641.

³⁴ Ovo je moguće tumačiti kao borbu protiv nadriliječništva.

Suosjećanje koje prema njemu pokazuje pomaže mu "otvoriti" pacijenta, ali u konačnici odluku o poduzimanju medicinskog postupka i liječenja donosi liječnik sam. Zbog takvog odnosa i protivljenja govorenja istine pacijentu, kako je ranije istaknuto, prozvan je i osnivačem paternalizma.³⁵

Zaključak

Među mnogim temama, i medicinska je etika u XVIII. stoljeću iskrsnula u drugačijem obliku (koji će kulminirati Percivalovim djelom iz 1803.). Tu etiku (kao, uostalom, i sve drugo) treba promatrati u kontekstu vremena: ona se bavi odnosom liječnika i pacijenta, ali štiti prvenstveno liječnika; kodeks se propisuje, ali kao varijanta kodeksa patricija, s neskrivenim ciljem jačanja moći nad pacijentom.³⁶ Pa ipak, i u pozadini ovakve etike treba prepoznati težnju da se odnosi reguliraju i unaprijede (bez obzira kako se iz današnje perspektive prosuđuje ovaj "napredak"). Nije li koncipiranje medicinske etike i u Gregoryjevu slučaju bilo prvenstveno motivirano naglim razvitkom tehnike (kao što će to biti slučaj točno dvije stotine godina kasnije s konceptom Potterove bioetike)? "Tehniziranje" medicine u drugoj polovini XVIII. stoljeća, dakle, u doba industrijske revolucije dotad bez presedana (parni stroj, 1769., mehanički tkalački stan, 1786.), uvođenjem biostatistike i metoda fizikalnog pregleda možda je Gregoryju bilo podjednako zabrinjavajuće i potencijalno otuđujuće kao i uplitanje napretka u odnos liječnika i bolesnika u XX. stoljeću. Na temelju navedenog valja zaključiti da Gregoryja valja pamtiti i spominjati podjednako po prikazanom napisanom djelu i po osobinama koje su ga krasile kao čovjeka i profesora medicine. Intimno duboko religiozan studente nije indoktrinirao vjerskim uvjerenjima, nego ih je poučavao sekularno. Zbog izražene skromnosti i vlastitim svjedočenjem da živi i radi ono što predaje bio je podjednako omiljen među kolegama i studentima. Stoga iz današnje perspektive, valja zaključiti, Gregoryja treba doživljavati kao zaljubljenika u medicinu i utemeljitelja filozofije medicine.

³⁵ Osnivačem paternalizma proglašava ga Ashworth, B u članku "John Gregory and the Background to Medical Philosophy", *The Journal of the Royal College of Physicians of Edinburgh*, 2003; 33: 68.

³⁶ Ibid., 446.

Nada Gosić, Amir Muzur

Actualisation and presentation of the first text on medical ethics in English language

ABSTRACT

The historians of medical ethics agree that the first published text on medical ethics in English was *Observations on the Duties and Offices of a Physician and on the Method of Prosecuting Enquiries in Philosophy*, published in 1770 by the physician and philosopher John Gregory (1724-1773).

By actualising that work emphasizes its importance for the emergence of Percival's medical ethical codex and try to prove the entwining of ethical values, thoughts, and standards with historical-cultural conditions of the development of medicine within a particular time frame. In accordance with that, in the first part of the paper we expose basic biographical data on John Gregory and discuss the influence of the ideas and attitudes of F. Bacon and D. Hume on value defining and humanist orientation in the work of Gregory. In the second part, considered is the development of medicine in the 18th century, while in the third part, by actualization presented - John Gregory's basic messages influenced in the ethical standardisation of medical-ethical issues.

Key words: medical ethics, code of medical ethics, paternalism, ethical values.

Anna Horňáková*, Anna Hudáková

Effective communication with deaf patients

ABSTRACT

Effective communication in medicine should lead not only to communication of health care professionals with patients, but also to mutual understanding. Limited ability of communication with deaf patients and providing inadequate feedback negatively affect their participation and implementation of successful nursing care. It is important that patients with hearing disabilities could express their needs, desires, feelings and opinions in communication with health care professionals. The specific approach of nursing staff to effective communication with deaf patients and respecting the reality that a patient is an equal partner who has the right to decide their own fate are essential prerequisites for establishing the contact in nursing practice. In educational programme of future health care professionals we tried to find out how our students are prepared for interaction, communication and negotiation of communication barriers with deaf patients. We also recommend training programmes in practical education for developing the communication skills and to focus on requirements which would make an effective communication with deaf patients.

Key words: communication, hearing disability, deaf patient, health care professional, communication barriers.

It is very difficult not to hear and live with people who use voice communication to understand each other. It is felt as if a man lived behind the glass: he can watch what others do, but he does not know why they are doing it and what they are talking about.¹

¹ Strnadová, V. (1995). *Jaké je to neshýšet*. ČUN, Praha, p. 22 (odkaz na článok v učebných textoch).

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Social contact is an essential part of medical profession. Ability to communicate well and effectively should be one of the most important skills of each nurse-patient communication.² It is important to understand that communication is effective when the participants understand the importance of passing the information themselves.³ The term communication has different meanings depending on the context in which it is used - in everyday life or in social communication, where this type of communication should also include therapeutic elements. Providing qualitative form of nursing care is focused on the main goals of modern nursing and secures satisfaction of needs in all types of patients.⁴ Due to technical medical advances the incidence of light hearing impairments is reducing and their implications are less severe, on the other hand, the incidence of severe hearing impairments and mixing impairments is increasing and they have adverse effects on communication, psychic, but also social. According to researches total deafness means that the deaf person with no sound amplification does not understand any sound, or just vibrations are heard (hearing loss is 100% - more than 91 dB). Practical deafness means that the deaf person equipped with handset perceives a sound colloquial speech, but it is not completely understood (hearing loss is 85-90% - 71 dB). Hearing loss means that a person with hearing impairment equipped with a headset in a quiet room where the sound level of interference does not exceed 50 dB understands at least 90% of sound.⁵ Limited ability to communicate, providing feedback, participation and implementation of nursing care are only a few problems that adversely have affected the life quality of hearing impaired patients, and therefore they should be taken into consideration and study.

Communication with deaf patients

Deaf patients are different from patients without disability in communication using hand movements and facial expressions of the muscles, position of the head and the upper part of the trunk as well. Random and disinterested observer of this communication is usually inclined to the view that deaf people use mainly gestures and facial expressions, it means nonverbal communication. Systematic observation and analysis of this specific communication showed something else: means that the deaf

² Horňáková, A. (2008). Multikultúrní komunikace při ošetrování klienta jiné kultury, In *Sestra*, Mladá fronta, a.s., 18 (9): 23-24.

³ Nádaská, I. , Lišková, M. (2006). Medzikultúrna komunikácia a jej bariéry, In *Sestra*, Sanoma Magazines Slovakia, s. r. o. Bratislava, XV (7-8): 20.

⁴ Sušinková, J. (2010). Miera záťaže u sestier pri uspokojovaní potrieb pacienta v paliatívnej starostlivosti. *II. Celoslovenská konferencia geriatrických sestier* dňa 15.-16. októbra 2010 [elektronický zdroj]. Košice: Slovenská komora sestier a pôrodných asistentiek, pp. 1-11.

⁵ Krahulcová, B. (2003). Komunikace sluchově postižených, Univerzita Karlova v Praze: Nakladatelství Karolinum, 303 p.

people are used to communicate with nonverbal gestures and facial expressions related to each other only at first sight, they are inherently different and to the contrary they are comparable to the means those people without disability use. This viewing of deaf communication is relatively modern view of linguists. Deaf people usually use a different communication system because their communication with others is difficult. Deaf people often used the dual language system.

1) **Verbal communication:** articulation, oral speech and hearing using residues mimic. Mastering the ability to communicate and preserve the oral speaking is very difficult for deaf people because it lacks the most important condition - the perception of ease of verbal expressions, respectively own expression controls. For deaf people (possibly people suffering with hearing loss) an oral speech in principle is the inconvenient means of communication, which is taught so that they have not been very isolated in the majority of society. The rate of the motivation to pursue somebody may vary, depending on skills and experience of the individual. Greater efforts on understanding and richer vocabulary have been seen in children who have had good intelligence and stimulating family environment and attended a normal primary school. The impulse to improve an oral language may be a transition in an environment of people without hearing disability, although this situation can be perceived as an unpleasant and stressful.

2) **Nonverbal communication:** facial expressions and movements - an important way to communicate with deaf people.

A sign language is based on the visual-motion code with a codified system of characters given by basic positions, hand movements with facial expressions, postures and movements in addition to all hands to apply various changes especially finger positions. The acquisition of sign language is very difficult and it is not possible to teach it at home. This system of characters has some limitations - the characters are often ambiguous and sign language has a different grammar.⁶ For the severely hearing impaired people the sign language has been the preferred means of communication, because it can be used without much effort (of course only if they can see their partner). The disadvantage is a limited number of people who know this way of communication. A person, who would be unable to communicate otherwise, would be largely insulated from communication and information. Very young deaf children can easily begin spontaneously to use gestures of communication. The sign language can be compared with spoken language; it can simplify communication considerably and power system too. The sign languages in various countries of the world are different similarly as spoken languages; it means that the sign language in

⁶ Vágnerová, M. (2008). *Psychopatologie pro pomáhající profese*. Praha Portál, 872 p.

the USA is different from the sign language in Great Britain, Australia or in Slovakia.⁷

Principles of specific approach to deaf patients:

- talk naturally to the deaf patients looking straight in their eyes,
- do not eat and drink, smoke or necessary open the mouth,
- support the chin and do not give a hand in front of the mouth when speaking maintain a slower rhythm of speech, be tactful,
- use facial expressions and facial gestures with your hands,
- if we do not understand the patient with hearing disabilities, ask him/her to slow down speech and repeat phrases
- try to avoid annoying sounds in communication
- Check if the patient really understands the information and do not forget the need to respect the patient's individual traits.⁸

In our paper we tried to find out whether the future health care professionals successfully handle the difficulties of professional communication with deaf patients. The focus has been placed on a **successful** and **effective communication** with such patients in hospital wards, where future health care professionals performed just their professional practice. We wanted to see the use of mastering the verbal communication skills, but also whether the respondents also use other forms of communication and whether they are sufficiently prepared to provide quality care to patients with disabilities.

Methodology of problem solving

In problem solving we used the questionnaire method. The **research group** consisted of 80 respondents of the Faculty of Health Care, University of Presov who were full-time students' courses in nursing, midwifery and emergency health care. They have carried out the professional training at the Faculty Hospital of J. A. Reiman in Presov in the maternity unit, medical ward and the department of trauma surgery. The study comprised 54 women and 26 men. The average age of participants was 25. The survey was conducted in the months January - February 2012.

⁷ Beňo, P. et al. (2012). Komunikácia so sluchovo postihnutými v zdravotníctve a sociálnej práci, Trnavská univerzita v Trnave, Fakulta zdravotníctva a sociálnej práce, Trnava, 182 p.

⁸ Tutková, J. (2007). *Komunikace sestra-pacient*, In *Sestra*, Mladá fronta, a. s., 17(1): 22-23.

Results and discussion

Results of analysis of respondents' answers are presented in tables.

Table 1 Answers of respondents to the question about the use of a slower rhythm of language when communicating with deaf patients.

Do you use the slower rhythm of speech when communicating with deaf patients during your professional experience?	The number of respondents	Percentage (%)
yes	60	80
no	20	20
Total	80	100

Majority of respondents (80%) responded positively the first question. Respondents are aware of the importance of using a slower rhythm of speech in providing quality nursing care to deaf patients and try to apply it in communication and only 20% of respondents have not used the slower rhythm of speech in communication. They do not realize that it could be one of a communication barrier or misunderstanding in communication.

Table 2 Responses to the question relating to problems concerning to communication with deaf patients

Have you ever had the problems with mutual communication with deaf patients?	The number of respondents	Percentage (%)
yes	28	35
more likely yes than no	28	35
more likely no than yes	14	18
no	10	12
Total	80	100

All 80 respondents answered the second question. We can see from the analysis of respondents' answers that 35% of respondents have had some problems in communication with deaf patients. 12.5% respondents have not had any problems and 17.5% have not had major problems. 35% respondents have had minor problems. We can conclude from this table that majority of future health care professionals have had problems in communication with handicapped patients. That is why it is

important to pay more attention to these problems of handicapped patients during theoretical lessons at school, but during the professional training in hospital as well.

Table 3 Answers of respondents to the question on the use of facial expressions and hand gesticulation when communicating with deaf patients

Do you think it is necessary for medical staff to use facial expressions and gestures with the hands when communicating with deaf patients?	The number of respondents	Percentage (%)
yes	53	69
no	17	21
I do not know whether it is useful	10	10
Total	80	100

More than half of the respondents have had a positive attitude to this question, 69% of respondents indicated that it is necessary to use facial expressions and gestures in communication. 21% of respondents have considered this non-verbal communication increasing professionalism as it is not necessary and 10% of respondents have not given the comments on the question. The analysis shows that if the respondents use this type of communication it allows them to meet the needs of deaf patients better and facilitate communication between future health care professionals and deaf patients much more clearly.

Table 4 Explanation of examinations and procedures for treating deaf patients

Do you think that it is necessary to explain deaf patients all examinations and procedures that we perform during a treatment?	The number of respondents	Percentage (%)
yes	27	34
partly	28	35
I cannot judge	17	21
no	8	10
Total	80	100

We obtained a surprising result in the evaluation of this issue, when 34% of respondents positively answered that a verbal accompany of all the activities for deaf patients during the treatment is necessary. The results have showed that more than

one third of respondents (35%) were unsure and 21% of respondents could not judge this situation and 10% consider it is not necessary at all that the patients should be familiar with the activities before the examination or during the treatment. But we think that the explanation of an examination or a treatment should be one of the principles of specific approach to deaf patients. Communication with deaf people which requires therapeutic effect should have professional behaviour to another person, especially to the sick, handicapped patients with kindly treatment and should respect, that the patient is an equal communication partner who has the right to decide own fate.⁹

Table 5 Respect for the individual characteristics when communicating with deaf patients

Do you respect the individual peculiarities of the communication with deaf patients?	The number of respondents	Percentage (%)
yes	48	60
yes, but not always	26	33
I do not know	1	1
no	5	6
Total	80	100

The question was aimed to determine whether future health care professionals respect the individual peculiarities in communication with deaf patients. The analysis of responses shows that 60% of respondents have considered respect of individual traits in their interaction with deaf patients. But as we can see in the tab. 5 an individual peculiarity in communicating with the patients (33%) has not always taken into account. Individual traits have not been respected by 6% of respondents, and one respondent has been unaware of the issue of comment. It is encouraging that 60% of respondents have put emphasis on interaction with deaf patients and their individual traits that may help them with verbal communication problems. A smile, kindness and caress are often more valuable than a great rush of words, especially for this group of patients.

⁹ Horňáková, A., Horváthová, K. (2011). Požiadavky kvalitnej komunikácie budúcich zdravotníckych pracovníkov so sluchovo postihnutými pacientmi. In Zdravotníctvo a sociálna práca, SAMOSATO, s. r. o. Bratislava, 6 (3-4): 85-86.

Table 6 Causes of communication failure between the deaf patients and respondents

What are the causes of communication failure between the deaf patients and respondents?	The number of respondents	Percentage (%)
Lack of time	21	27
Acoustically-poor areas and the environment	22	26
Lack of interest in patient communication	30	45
Failure of individual traits	3	2
Total	80	100

All 80 respondents answered this question. Almost half, 45% of respondents have supported that one reason of communication failure was disinterest in patient communication, which can be attributed to the confidence of patients to the future health care professionals. 26% of respondents have seen unsatisfactory and untreated areas of communication as a barrier to communication. Although future health care professionals have realized that each health care professional should find the time to communicate with patients, 27% of respondents have considered the lack of time for communication as a barrier to its effectiveness, and 2% have said that the cause of communication failure has been caused by failure of individual traits of the patients.

Table 7 Importance to train communication with deaf patients during the theoretical lessons

Do you think that it is necessary to train communication with deaf patients during the theoretical lessons?	The number of respondents	Percentage (%)
yes	40	51
partly	30	35
I cannot judge	2	4
no	8	10
Total	80	100

A half of respondents (51%) think that it is necessary to train communication with deaf patients during the theoretical lessons, 35 % of respondents are unsure that it is so necessary, 4 % of respondents did not answer this question and 10% think that it is not necessary to train communication with deaf patients during

the theoretical lessons. We think that our respondents should be better prepared theoretically to solve communication problems before they meet deaf patients in professional practice.

Conclusion

We supposed that professional communication is an integral part of health care professional work and also affects the life quality of deaf patients. It is therefore necessary to communicate with them and try to understand them. Our results showed that most respondents have had some communication problems with deaf patients even though they are trained theoretically at school and also in professional training in hospital. The causes of these problems were various, but the lack of interest from a patient's point of view was the most common reason. More than half of our respondents (69%) used non-verbal expressions and gestures in their communication which helped them to understand patients much better and more clearly. Almost 60% of respondents respected the patient's individuality, but there were also a small number of respondents (6%) who have not still respected it.

According to these findings we can recommend the following improvements in nurse-deaf patient communication:

1. Respondents should be more trained in communication with deaf patients not only in theoretical lessons, but also practically in professional trainings.
2. Give respondents more opportunity to participate in professional conferences and seminars.
3. Train them to prepare various professional power point presentations and posters concerning nurse-deaf patient communication or role play activities.
4. Motivate them to self-study is one of burning questions how to help deaf patients in mutual understanding.

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The Bulgarian anatomical terminology of today

ABSTRACT

By *Bulgarian anatomical terms* we mean the names established by scientific tradition, duplicating the Latin anatomical terms and coined with the means of the Bulgarian language or loan-words which are grammatically integrated (assimilated) into the Bulgarian anatomical text and are written in the Cyrillic alphabet. In their integrity and systemic relationships, the Bulgarian anatomical terms make up the *Bulgarian anatomical terminology*.

The modern Bulgarian anatomical terms are formed in conformity with the basic term formation methods in Bulgarian literary language: lexico-morphological, lexico-syntactical and lexico-semantic. Besides them, word-borrowing in its two varieties – borrowing through translation (literal and free) and borrowing existing foreign terminological items – has had an impact on the terminological norm and is currently an active modern process lending itself to control.

Main points in the research: Terms, terminology and nomenclature; Definitions in the anatomical scientific literature; Term formation; Links and interrelationships; General linguistic characteristics of the anatomical terms; Norm, codification and standardization in anatomical terminology.

Key words: anatomical terminology, Bulgarian anatomical terminology, Latin anatomical nomenclature.

Introduction

The modern anatomical terminology has been established and developed in strict conformity with the Latin anatomical nomenclature.

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International anatomical nomenclature

The Latin anatomical nomenclature is an orderly, standardized, internationally unified system of names of anatomical entities presented as a list, reflecting the inherent consistency of anatomical terminology. An expression of that consistency is the generic relationships and those of the part-whole, which are the foundation of the nomenclature structuring and classification in anatomy.

The establishment, development and refinement of anatomical nomenclature have a long history, dating back to the Basiliensia Nomina Anatomica, followed by Jenae Nomina Anatomica, Parisiensia Nomina Anatomica and other revisions (Ванков & Давидов 1993).

Bulgarian anatomical terminology

By *Bulgarian anatomical terms* we mean the names established by scientific tradition, duplicating the Latin anatomical terms and coined with the means of the Bulgarian language or loan-words which are grammatically integrated (assimilated) into the Bulgarian anatomical text and are written in the Cyrillic alphabet. In their integrity and systemic relationships, the Bulgarian anatomical terms make up the *Bulgarian anatomical terminology*.

The beginning of Bulgarian anatomical terminology goes back to the period of the National Revival - 1820s (Николова 2003). Following the liberation of Bulgaria from Turkish domination (1878), the trend of translating literally, translating freely or borrowing Latin terms directly gathered momentum.

A number of basic terminological types can be differentiated, based on the structure and origin of the modern terms.

Objectives and tasks set of the research

1. To present the Bulgarian anatomical terminology in terms of sources and ways of term formation.
2. To make a general, linguistic description of the anatomical terminology.
3. To study the interrelationships of Bulgarian anatomical terminology with general Bulgarian and with Latin nomenclature.
4. To outline the inward terminological norm and the state of terminological codification and standardization.

The practical application of this research has both a linguistic and a didactic aspect.

CHAPTER I

Terms and terminology

According to the modern understanding, a *term* is a language sign – word or word combination – which names a notion of an object or event from a particular scientific or engineering field and requiring a definition (Даниленко 1977:15; Манолова 1984:7; Бояджиев & Куцаров & Пенчев 1999:185-186).

All the terms, characteristic of a particular field of scientific and engineering knowledge, form its terminology. This narrower meaning of the notion (Манолова 1984:7) has been adopted in the present paper.

Scientific term parameters

the scientific term parameters are characteristics, properties (Манолова 1984:9-11), requirements (Sager 1990:89-90) of the language item in the scientific text, which are the basis for identifying it as a scientific term. These are: 1. Monosemy; 2. Accuracy; 3. Conciseness; 4. Consistency; 5. Grammatical correctness; 6. Stylistic neutrality; 7. Derivation ability.

Terminology and nomenclature, scientific term and nomenclature symbol

Terminology and nomenclature are closely interrelated – we cannot speak of a nomenclature where no terminology has been established.

The differences between the scientific term and the nomenclature symbol arise in the nomination process. The term as a language sign not only denotes but mostly signifies events from reality, studied by science, while the function of the nomenclature symbol is only to denote the objects from reality without giving them meaning. It is further pointed out, in clarifying of the essence of the scientific term, that it possesses a definitive function. By terminological meaning we understand ‘that part of the term content which is presented as a concise summary in its definition. The meaning of the term comprises its most essential characteristics, which create the scientific notion of it.’ (Попова 1990:15). We differentiate between the meaning of the term and its content, the latter comprising the whole totality of knowledge about the object or event from reality which is an object of study by science. (Попова 1990:14-15).

Nature of the anatomical term as a language sign

it is pointed out in Bulgarian terminological studies that the terms as linguistic entity signs are characterized by both aspects of the sign meaning – denotative and significative – with one or the other prevailing depending on the different kinds of meanings. The denotative aspect, if present, should not be perceived as referring to a specific single object, but rather to a class of objects (Попова 1990:32)..

Anatomical terms fulfill a denotative function by designating anatomical objects and, at the same time, denote the scientific notions for the latter, thus playing a significative function. The scientific notions in anatomy are specific notions, content notions. They possess the characteristic feature of object terms in that the set of attributes comprising their meaning cannot be accurately determined since the specific notions they contain reflect in a generalized way the properties of concrete objects or a class of objects. This is explained with the impossibility to clearly outline the borderline between content (substantive notion) and the meaning (formal notion) of the term denoting a specific object and creates indefiniteness about the meaning of the term (Попова 1990:32). That indefiniteness about the meaning of the terms for specific objects is reflected in the terminological definitions and accounts for the specific character of definition in anatomy which leads to structural variety of the defining texts.

Definitions in the anatomical scientific literature

it is a specific characteristic of the anatomical definitions that the first part of the classical requirement of "definitio per genus proximum" in the real definition underlies the nomenclature consistency of the anatomical terminology and its verbal expression in the anatomical texts isn't compulsory; the second part of the "et differentiam specificam" requirement is achieved by using qualitative and descriptive methods, implemented in the broader scientific context.

The specifics mentioned creates variety in the defining anatomical texts: 1. Nominal definitions by etymology; 2. Nominal definitions by synonyms; 3. Conventional nominal definitions; 4. Real definitions; 5. Diffusive definitions; 6. Definitions by listing constitutive components; 7. Contextual definitions.

CHAPTER II

Term formation

Term formation is a two-way process including the definition of the notion as a complex logico-semantic act and the establishment of its linguistic form (Попова 1990:10).

Methods of formation of Bulgarian anatomical terms

the modern Bulgarian anatomical terms are formed in conformity with the three basic term formation methods in Bulgarian literary language: lexico-morphological, lexico-syntactical and lexico-semantic (Манолова 1984:6). Alongside them, word-borrowing in its two varieties – borrowing through translation (literal and free) and borrowing existing foreign terminological items – has had an impact on the terminological norm and is currently an active modern process lending itself to control.

1. Lexico-semantic term formation method

The lexico-semantic term formation is the creation of terms by changing the meaning of words from the general language (Манолова 1980:220, 1984:46; Христова 1999:224). In anatomical terminology, two lexico-semantic term formation processes can be distinguished: *specialization* of commonly used vocabulary and *transfer of meaning (metaphorisation)* of commonly used vocabulary. These include commonly used nouns of Bulgarian origin.

1.1. Specialization

Commonly used words start being used in a special context, the relationship with their denotations preserved. Complete or partial coincidence of the general and the terminological denominations is achieved and this phenomenon can be defined as *weak terminologisation of the commonly used vocabulary*. Although the commonly used word and the term both preserve identical denotative reference, it is possible for changes in the meaning of the newly coined term to take place in a functional aspect – it can be narrowed, extended or differentiated (specified).

Most numerous are the cases of specialization of the nouns from the 'Parts of the body' class. Examples: *бъбрек (kidney)*, *зъби (teeth)*, *език (tongue)*, *бъзи (chicks)*, *нос (nose)* etc.

1.2. Metaphorisation

Of the various divisions of the metaphor, of importance to the anatomical terminology is the one into identifying (objective, substantive) and attributive (predicative) metaphor.

The *identifying metaphor* serves as a means for autonomous (indirect) secondary nomination, i.e. for independent denotation (Попова 1997-1998: 19). Using it, metaphorical terms are coined which are comparatively few in number in anatomy, for instance the names of the hearing ossicles – *чукче* (hammer), *наковалня* (anvil) and *стреме* (stirrup) etc.

Quite common are the cases when, in addition to the identifying metaphor, also another term is incorporated which becomes a microcontext for the metaphor, i.e. into the content of the term both the name-metaphor and the smallest nominative context explaining the reference of the metaphorical name are included (Попова 1986:29). Example: *покрив на тъпанчевата кухина* (lat. tegmen tympany, engl. roof of the tympanic cavity) etc.

The attributive metaphor is a means of a non-autonomous (indirect) secondary nomination (Попова 1997-1998: 19), i.e. not of independent naming but rather together with another name to which it plays a characterizing role. The name created through an attributive metaphor is a term-element of a term combination. The examples for metaphorical adjectives representing term-elements are numerous: *охлювно каналче* (lat. cochlea, engl. snail shell), *скалиста част* (lat. *pars petrosa*, engl. rock-like part), *люспеста част* (lat. *pars squamosa*, engl. scale-like part) etc. In contrast to them, the ones for metaphorical participles representing term-element are few in number: *блуждаещ нерв* (lat. nervus vagus, engl. vagus nerve), *пробиващи артерии* (lat. *arteriae perforantes*, engl. perforant arteries), *каменеещи се влакна* (lat. *fibrae ascendens*, engl. climbing fibers) etc.

2. Lexico-morphological term formation method

The lexico-morphological term formation is based on *affixation* and *composition*. In the anatomical terminology these processes are directly linked to the strong trend of loan translation.

2.1. Affixation is the addition of word-building formants to the root forms of various parts of speech with the aim of forming new term words.

2.1.1. By adding prefixes a number of Bulgarian anatomical terms and term elements, pertaining to nouns and adjectives are formed. The use of the following Bulgarian prefixes is rather common: *зад-* ('behind'), *над-* ('above'), *под-* ('below'),

пред- ('in front of'), *между-* ('between'), *около* ('around') etc. They are connected to the bases of nouns, e.g. *задстомашен* (pancreatic), *надкостница* (periosteum), *подлигавица* (submucosa), *предмишница* (forearm), etc. Together with the borrowed anatomical terms, a number of foreign language affixes were introduced, such as: *ени-* (epi-), *мета-* (meta-), *диа-* (dia-), *пери-* (peri-) etc., e.g. *енифиза* (epiphysis), *метафиза* (metaphysis), *диафиза* (diaphysis), *периневриум* (*perineurium*) etc.

2.1.2. Suffixation is used to form:

I. Noun terms. Discussed and illustrated by examples is the term formation through the following suffixes: *-ец*, *-ник*, *-ица*, *-ач*, *-тел*, *-ък*, *-ак*, *-ка*, *-ло*, *-ост*, *-не*, *-ние*, *-ие*, *-ище*, *-че*, *-ица²*, *-ка²*, *-ичка*, *-ен*, *-це*.

II. Adjective terms. Discussed and illustrated by examples is the term formation through the following suffixes: *-ест*, *-ист*, *-ен*, *-ов(-ев)*, *-ен²*, *-ов²*, *-ен³*, *-ов³*, *-телен* (*-ителен*, *-ателен*). Information on borrowed adjective terms is also given.

III. Adverb terms – with the suffix '*-о*'.

2.1.3. By *confixation* (prefix-suffix word formation method) a number of terms are created. Examples: *надгръклянник* (*epiglottis*), *надкостница* (*periosteum*), *надсеменник* (*epididymis*).

2.1.4. *Term formation without suffixes* (zero suffixation). Only one example was found – *просвет* (lumen).

2.2. By **composition** a great number of noun and adjective terms are formed.

2.2.1. Formation of compound noun terms. Depending on the relationship between the initial root bases two groups exist:

- a) Terms with syntactically equal bases, e.g. *назофаринкс* (nasopharynx);
- b) Terms with syntactically unequal root bases, e.g. *хранопровод* (esophagus).

Belonging to the second group are the terms formed by combined constituents (compact compositional term formation). Discussed and exemplified is the term formation through the following combined constituents:

- a) borrowed: *-бласт* (*-blast*), *-зома* (*-soma*), *-фаг* (*-phag*), *-класм* (*-clast*), *-цит* (*-cytus*), *-вила* (*-vilus*);
- b) domestic: *полу-* (semi-), *дву-* (bi-) , *-въса* (*-vilus*),

2.2.2. Formation of compound adjective terms:

2.2.2.1. Compound adjectives with a conjunctive link between the two bases. Example: *стомашино-чревен* (*gastro-intestinal*).

2.2.2.2. Compound adjectives, formed by binominal word combinations with a subordinating link between the two bases. Example: *горночелюстен* (lat. maxillaries, engl. 'of the upper jaw').

2.2.2.3. Compound adjectives formed by using Bulgarian word bases: *-виден*, *-образен* (-shaped).

2.2.2.4. Compound adjectives with the first part based on a cardinal number.

Example: *двуглав* (two-headed).

2.2.2.5. Compound adjectives with the first part based on adverb.

Example: *вътреклетъчен* (*intracellular*).

3. Lexico-syntactic term formation method

The word combination terms in anatomical terminology have been analyzed on the basis of *syntactic models* representing the syntactic relationship between the word combination components – attributive, objective, adverbial – and on *structure-positional models* which represent a) the structural elements (term elements) of the word combination as parts of speech; b) the linear position (word order) of the structural elements and c) the presence or absence of grammatical words (Попова 1985:107-108). That approach allows for the word combination terms to be studied with regard to the requirements of the terminological norm for lexico-grammatical correctness, complying with the terminological standards.

Alongside this, the semantic approach has also been used, the latter taking into consideration the semantic characteristics of the term elements resulting from their belonging to one or another lexico-grammatical category and to one or another lexico-semantic class within these categories..

3.1. Non-prepositional word combination terms. *These are of two types.*

3.1.1. Principal part – a noun and a subordinate part – one or more (2, 3) adjectives or an ordinal number (+/- adjective-s), or a participle (+/- adjective-s) with a syntactic relationship between the term elements of *attribute coordinated* type. The word combination terms of this kind are characterized according to the basic lexico-grammatical and semantic features of the subordinate element. The cases studied are: of a subordinate element being an adjective with a general meaning of: 'relation to an

object' (relation to size, place and location, shape, surface), 'characteristic' (structure, colour), 'relation to sequencing and quantity', or 'relation to action'.

3.1.2. Two-element word combination terms with the formal structure of noun + noun (S+S) with an attributive syntactic correlation between the term elements of the *application* type.

3.2. Prepositional word group terms. *With regard to the syntactic relation between the term elements these are: 1) attributive or 2) objective.*

3.2.1. Attributive word group terms are a type of non-concord attributes with the preposition *ha* ('of'). The formal structure is S+of+S with possible extensions by concordant adjectives. The general semantics is one of 'possession and belonging' and is related to the intra-systematic partonomic relations in anatomy.

Depending on the number and the lexico-grammatical category of the term elements situated on both sides of the preposition *ha* ('of'), differences in the formal structure of the word groups are seen.

The preposition *ha* 'of' can be used once, twice or three times in the word group, corresponding to a one degree, two degree or three degree attribute. Respectively, 10, 5 and 1 case(s) are presented.

3.2.2. Object word group terms with the preposition *ha* 'of'. Formal structure **S+S+of+S** with a possible extension **S+A+S+of+A+S**. This structure is used in the cases when the motivating feature for the terminological nomination is the function of the anatomical structure – the work done by them, together with the objects of that work.

3.2.3. Word group terms with other prepositions: *om* ('from') and *za* ('for').

3.2.4. Word group terms containing the conjunction *u* 'and'.

4. Linguistic borrowing as a term formation method

in Bulgarian anatomical terminology the sources of borrowing are the Greco-Latin nomenclature terms.

4.1. Borrowing through translation. Translation is a lasting trend in modern Bulgarian anatomical term formation, supported by the necessity to strictly comply with the Nomina Anatomica standards. As a term formation method it has two varieties – literal translation, realized by word formation and phraseological loan translation and free translation.

4.2. Borrowing of existing terms. Related to word loan implementation mechanisms in the Bulgarian anatomical text, two cases emerge.

4.2.1. Unchanged borrowed terms. Examples: *брезма* (bregma), *вертекс* (*vertex*), *окупурум* (occiput) etc.

4.2.2. Assimilated (Bulgarianized) terms: Examples: *enuфuза* (epiphysis), *дуафuза* (diaphysis), *метафuза* (metaphysis), etc.

The terminological borrowings become a basis for a further morphological and syntactical term formation.

CHAPTER III

Links and interrelationships

Bulgarian anatomical terminology is a lexical subsystem of the Bulgarian national language and alongside this is a national terminological system, which runs parallel to the Latin terminology and is created by using the latter as a model. Those positions determine the linguistic (lexico-semantic) links and relationship of the Bulgarian anatomical terminology with the lexical structure of the general literary Bulgarian language and with the Latin anatomical terminology.

Lexico-semantic relationships between the Bulgarian anatomical terminology and the literary Bulgarian language

three cases of interaction are discussed:

1. The processes of terminologization of the generally used vocabulary;
2. Bulgarian term creation and the commonly used vocabulary
3. The de-terminologization. of the generally used vocabulary.

The connection between the Bulgarian and the Latin anatomical terminology

the role of the Latin terminology as a model (standard) is seen mainly in two directions.

1. External formal correspondences. These can be seen in the entire external formal structure of the term and in the formal structure of the term elements.
2. Borrowing of existing nomenclature terms. This is a phenomenon, which has wide ramification in the Bulgarian anatomical terminological system. It comprises several basic cases: a) The terminological borrowings are absolute terms; b) The ter-

minological loan words are duplicated by Bulgarian terms; c) The terminological loan words make part of a word combinations as term elements alongside Bulgarian term elements.

CHAPTER IV

General linguistic characteristics of the anatomical terms

structural characteristics of the anatomical terms. With regard to the external form and the language structure several groups of anatomical terms are outlined: 1. Word-terms; 2. Word group terms; 3. Eponyms.

The anatomical terms according to their belonging to the category "Parts of speech". The *nouns* with a specific objective meaning are a basic nominative means. The biggest is the share of the common noun terms, called "general terms" (*termini generales*), from which the names of organs and organ elements in the different systems are formed. The common nouns in anatomy undergo internal division into two groups: a) objective nouns (which are numerous): *тъкан* (tissue), *орган* (organ) etc.; b) nouns, naming, result of processes and actions (few in number): *вкопчване* (gomphosis), *втиснатост* (impressio) , etc. In the anatomical terminology personal nouns are also included in the structure of the eponymic word group terms e.g.: *водопровод на Силвиус* (aqueduct of Sylvius, Lat. aquaeductus cerebri), etc.

It is known by implication that *adjectives* cannot be terms, but only term elements in terminological word groups. Even though they cannot be independent terms, a great part of the adjectives in anatomical terminology possess the characteristics of an artificial language, typical of the terminological vocabulary. Therefore, in this paper we call them *terminological adjectives*.

In the anatomical scientific text *adverb* terms are used, too. By these the location of the anatomical objects and the directions in the human body are denoted.

Verbs are part of the anatomical terminology but in their indefinite forms – present participles and past participles. These act as term elements with an attributive function in the terminological word groups.

A portion of the terminological word groups contain grammar words. The prepositions *на* (of), *от* (from), *за* (for). The conjunction *и* (and).

Semantic characteristic of the anatomical terms.

The structural hierarchy of the scientific notions finds expression in the terms which leads to the term consistency characterizing most of them. As regards the representation of the interstructural semantic relations, two terminological semantic fields are outlined, overlap being a possibility.

1. Terms, denoting generic notions and the species notions related to them, e.g. *клетка* (cell) and *бодилна клетка* (prickle cell).
2. Terms which denote notions of entire anatomical objects and ones of parts of anatomical objects, e.g. *гръдна кост* (sternum) and *the дръжка на гръдната кост* (sternum handle, manubrium sterni) etc.

Motivation for a terminological nomination in anatomy

By essential nominational characteristics in the anatomical terminology we understand the characteristics based on the features of the object notions for anatomical objects. The most common essential characteristics serving as motivation for terminological nomination in anatomy are: shape, function, location of the object in space (vicinity, position of one object in relation of another object, position of an object within another object); one object being part of a greater object; position in the body; structural feature; colour; position and direction; dimensions (Каданов & Балан & Станишев 1964:1:23).

The combined term formation by expressing two or three nominative characteristics is rather common.

Some anatomical objects carry notionally unmotivated names, which have been preserved by tradition or are the result of accidental coinage.

General linguistic relationships within anatomical terminology

1. **Antonyms** find wide application in the anatomical terminology for denoting objects of the same kind (anatomical objects), which differ only in one differential characteristic containing opposites. Based on opposites, the position and direction in space as well as the dimensions of the anatomical objects are denoted.
2. **Synonyms.** By 'terminological synonyms' in the Bulgarian anatomical text we understand the cases when, in relation to a Latin term, two (or more) Bulgarian terms are used, which enter into synonymous relationships. The terminological synonymy in anatomy is determined by the fact that the nomination can be carried out in different ways – term formation using the native lan-

guage or borrowing; it can also be done on the basis of various features of the object notions for anatomical objects. Thus defined, the terminological synonymy in anatomy should not be mistaken for alternating Latin and Bulgarian terms, an occurrence which is typical for the Bulgarian anatomical literature. A number of typical cases of synonymy are reported in the Bulgarian anatomical terminology: a) existing Latin terms are borrowed and alongside this process the same terms are subjected to loan translation; b) the Bulgarian term is a loan translation, but alongside it other terms are coined locally; c) alongside the eponymic terms language-motivated terminological word combinations are presented.

3. **Polysemy** in anatomy develops on the basis of metaphorisation. A number of terms resulting from specialization of generally used nouns are secondarily turned into terms by metaphorical transfer of meanings, resulting in the creation of new names for other parts – macroscopic objects which are similar in shape and function with the ones of the source. Examples: *глава* (head), *влагалище* (vagina) etc.
4. **Omonyms** are found in anatomical terminology as a result of accidental coincidence: one of the forms of a term or a term element coincides in form with another term or term element. In a scientific field such as anatomy, which uses bilingual terminology in parallel, it is possible for partial omonymy to occur between words pertaining to different languages.
5. **Paronyms**. The real occurrence of paronymy is individually determined, since it is a function of the general as well as the language knowledge of the person talking. In the process of study it is also related to the level of special knowledge and terminological competence of the students. In the anatomical literature and terminology a number of conditions are reported for the creation of paronyms: a) between Bulgarian anatomical terms or term elements; b) between Latin terminological loan words; c) between a local Bulgarian or borrowed anatomical term and a Latin term.

CHAPTER V

Norm, codification and standardization in anatomical terminology

Terminology as a whole adopts and complies with the norms of the literary language and also complies with its own general term norms for correctness which differ from the literary language norms without contradicting them (Манолева

1984:18). These general term norms find expression in the essential characteristics (parameters) of the terms. The general term norms find specific expression in each terminological subsystem through its own terminological norms in which the specifics as non-contradicting differences in relation to the general term norms as well as those of the literary language are expressed (Манолова 1980:214). In the anatomical terminology a number of specific features can be observed, determining the term's own norm. Five specific cases have been studied.

Deviations from the general term norms as well as those of the literary language have been observed, that being a negative trend. One such case is discussed.

Codification in terminology finds expression in the collecting, systemizing and specifying of terms from different terminological subsystems (Манолова 1984:20). The codification of the Bulgarian anatomical terminology began with the initial creation of original academic literature by Prof. I. Shapshal (Шапшал 1926, 1927, 1930) and continued in the works of Prof. D. Kadanov, Prof. M. Balan and others. In the second half of the 20th century, following the publishing of a great number of author's textbooks and manuals in human anatomy, the Bulgarian words established via codification in previous periods acquired the nature of standardized Bulgarian anatomical terms, ready to be included in the Bulgarian anatomical nomenclature.

CONCLUSION

At present, the Bulgarian anatomical terminology is a subsystem of the Bulgarian literary language having an orderly internal structure.

It has its own well-defined terminological norm.

The unification and codification processes in the Bulgarian anatomical terminology has an 80-year history. They are directly linked to and assisted by the circumstance that human anatomy is a major discipline in the curriculum of medical faculties and colleges and is studied at some level at a great number of high educational institutions. To support these studies, Bulgarian study and reference literature is available, which is extensive and constantly updated.

The standardization of the anatomical terminology is at a rather advanced stage, but it doesn't comprise all the terms yet. The next step in the standardization of Bulgarian anatomical terminology would be to include all the anatomical terms into a conventional (consensual) Bulgarian anatomical nomenclature for which all the necessary prerequisites are available.

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A dictionary of general language and general scientific lexis as a handbook for foreign medical students

ABSTRACT

There is represented a new lexicographic edition, which is intended for foreign students in medicine, pharmacy and stomatology in the Bulgarian medical universities: Bulgarian-English training dictionary, reflecting some basic difficulties, which the foreign students encounter at work with training texts in the subject in the first years of their training in Bulgarian language.

Key words: foreign students, Bulgarian language, general language and general scientific lexis, medical text

Introduction

In compliance with the Law for the higher education, which is operating on the territory of Bulgaria, the foreign students, which study a subject in Bulgarian language, pass a one-year course for preparation in general Bulgarian language (620 school hours) and in the language of the subject (230 school hours). In the programme are included also and knowledge in the special subjects (for the medical subjects, for example, these are biology, chemistry, physics, anatomy – as per 75 school hours for each).

The further volume of the training in Bulgarian language is organized in compliance with the autonomous programmes of the universities. In some medical universities the students study Bulgarian language in first and second course as an obligatory

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training discipline, and in others – the training is carried out only in first course (up to 120 hours for one academic year).

Despite the ceaseless perfecting methods of the training in general and specialized language in a not philological university, the predominating part of the students encounter impediments, difficult for overcoming in the first years of their training in the subject. Some of them are connected with the insufficient preparation in the special disciplines from the secondary school, others – with insufficiently developed habits for analysis and studying of scientific information, third – with the insufficient level of command of the new language, in which is carried out the training. The first two from the indicated difficulties are shown individually for the different trained persons, but the third is valid for everyone. The students need assistance in the work with the texts in Bulgarian language, but in the programme there is not enough time for increasing of the volume of the training in Bulgarian language and the very students do not have enough time at their disposal in order to visit additional classes.

At listening (of lectures, explanations during the exercises) the difficulties consist of the inconformity between the speed of speech of the lecturers, the great quantity of new words, the logical difficulty of the texts – on the one hand, and the speed of perception of the new information by the foreign students, on the other hand.

At reading the basic difficulties for them are the enormous quantity of new and various words, the inability to specify the degree of their significance, and also the syntactical difficulty of the sentences and the text, as a result of which the extracting of the general information is not always successful. Not rarely the style of the textbooks – as an individual peculiarity of the style of the authors, is closer to the style of a complicated scientific dissertation, than to the style of the textbook as a book for training, which also complicates the possibility for adequate and of full value perceiving of the information from the text.

At speaking the basic difficulty is the syntax, which except a pure linguistic incompetence, is a result of unclear thinking, i.e. insufficient preparation from the previous stages of the acquiring of the information – listening and reading. When the connotation of the words is not clear completely, the logical connections between them are difficult to be carried out. And since the words express the thought, this shows lack or insufficiently good connection between the notions: if the knowledge is perceived correctly, this correctness of the connotation would be expressed at speaking, even in a not perfect linguistic form. The same is valid and for the written transferring of the perceived by the students scientific information.

An important instrument in aid of the student in his/her work as per the subject at this stage is the dictionary. But the usage of the existing ones – general linguistic and

terminological, is not an optimistic alternative for him/her, since, if they are terminological – explanatory or translation, are not conformed with his/her level [Димитрова и др. 1994], they are too difficult –even if they are explanatory [Арнаудова 2005], and the general linguistic – if they are volumetric, they require a lot of time for searching of words, and if they are concise – they do not include all searched words, and besides not all students may use them, since not everyone has a command of the language of the translation (usually English), and translation dictionaries in their native language - most frequently for Bulgaria Turkish, Greek, usually there are not [Минков, Костова 2013].

Therefore the training lexicography here is especially topical. It is flexible since it can be conformed with the specific peculiarities of the audience, for which it is intended, on the one hand, and on the other – adequately to respond to their necessities, with concrete purposes and specific contents. The training dictionary "General linguistic and general scientific lexis in the scientific text" [Костова, Минков 2013], developed by us, intended for foreign students in medicine, stomatology and pharmacy, refers namely to this group of lexicographic editions.

Presentation

1. Scope and sources. The training and scientific texts include four basic layers of lexis: 1.conversational and general-linguistic lexis (level A1-B1 from the European frame of reference for languages); 2. General linguistic lexis at level high-advanced (B2-C2); 3. General-scientific lexis; 4.medical terminology – general and special.

The students have command of the conversational and general linguistic lexis at level A1-B1 from a preparatory course. The medical terminology, which is introduced for first time, is new and for the Bulgarian students and is explained by the teachers during their lectures and seminars. It also frequently is illustrated visually and this assists the understanding and the remembering of the terminological instrument for each new special discipline.

The factual difficulty for the foreign students at this stage are the general linguistic lexis at level B2-C2 and the general scientific lexis, which are typical for the academic training texts and they occupy greatest percent from their volume. Often these are long and difficult for reading and pronouncing words, compound or foreign words, words with specific meanings and specific syntactic functions.

The dictionary "General linguistic and general scientific lexis in the scientific text" is composed on the grounds of training texts in the basic academic disciplines in I - III course - physics [Бенова и др. 2006][Маринов 2004], biophysics [Маринов

2011], biology [Ватев и др. 2006], cytology, histology [Овчаров, Такева 2001] [Чучков, Йотовски 2010], anatomy [Ванков, Овчаров 2008] [Павлов, Йотовски, Аврамова 2002], physiology [Гърчев и др. 2008] and pathophysiology [Андонов 2010].

2. Structure. The dictionary comprises around 9 000 words, arranged in alphabetical order. It is developed as a bilingual dictionary - Bulgarian-English, but it contains and a third column for independent work, where the student may translate the word in their native language, to indicate synonyms or to explain its meaning explanatory. This third column gives opportunity to the student for a more profound work with the word: translating it with the help of a dictionary, a teacher or a friend, he/she works actively with it; marking a synonym – he/she enriches their vocabulary, and explaining its meaning – he/she develops their logical thinking and remembers it permanently.

Български	English	Бележки Comments <i>synonymes, meaning, translation</i>
бавновълнов,-а,-о,-и	slow-wave adj	
багра, -и	1.colour; dye 2. tint; huen	
багрилен,-лна,-лно,-лни	tinctorial,colouring adj	
багрило, -а	paint; dyen	
багря,-иш[се]/обагря,-иш[се]	colour[<i>pass</i> : becoloured]; dye [<i>pass</i> : bedyed] v	
бадем,-и	almond n	
бадемовиден,-дна,-дно,-дни	almond-shaped adj	
база,-и ^{1,2}	base; basis n	син.основа
базирам,-аш[се]	base (on) [<i>pass</i> :be based (on)] v	
барабан,-и	drum,tambourn n	
бе	was, were v	син.: беше
беглец, бегълци	runaway, fugitive;escapee n	
беден,-дна,-дно,-дни	poor adj	
бедствие,-я	disaster; calamity n	

In the Bulgarian part the words are arranged in alphabetical order. The grammatical notes to the words reflect the grammatical peculiarities of the Bulgarian language (presence of three grammatical genders – masculine, feminine, neuter; three forms of conjugation of the verbs; two verbal types – imperfect and perfect type; reflexivity of the verbal action and etc.), as well as their frequency of displaying in the scientific text. For the nouns with object meaning are indicated the forms for plural. There is not indicated form for plural, if the word is used only in singular or the usage of the form for singular is with prevailing frequency. In the cases, when the word is used only in plural, this is indicated in brackets (pl.). Note for gender - for example. "ж.р." (feminine gender), is put only to words, which are exception to the basic rule (for example for feminine gender they do not have the typical ending "**а/-я**", for example ГНОЙ(ж.р.) , since at this level the students already know the basic rules for gender differentiation and differentiation in number of the nouns.

The adjectives and the participles (present active, past active, present passive, past passive participles) are presented with their forms for masculine gender – as a basic form, for feminine and neuter gender and plural.

The verbs are presented with their forms for imperfect and perfect type, as for each is indicated and the form of 2 person singular. In many of the cases in brackets is indicated and the particle "**се**" as a variant for formation of passive voice.

The English part contains the translation of the words in the meanings, which are met in the training texts. Everywhere to the English translation is indicated a grammatical note, which is important for orientation in the meaning of the word in Bulgarian language, since frequently in English language one and the same as per form word in the text has different grammatical meanings, for example a noun (noun:**n**) and an adjective (adjective: **adj**).

In the third column: *Notes*, in some cases are given examples, as there are indicated synonyms or meanings of the words. But this part, as we marked above, is intended mainly for independent work of the student. With it the dictionary executes the role and of a notebook and this way it may be used and in the training classes in Bulgarian language at studying of the structure and contents of the scientific text.

3. Contents. From linguistic point of view the contents of the dictionary brightly confirms the peculiarities of the scientific style of speech, at first place - its nominal character with prevailing number of – nouns and adjectives, as well as the typical peculiarities of the Bulgarian scientific speech, which makes it not only a useful textbook for students, but also an interesting result for the linguist-explorer, as well as a useful resource of information for the teacher in Bulgarian language as a foreign language.

The analysis of the parts of speech in structural regard shows strongly expressed specific peculiarities for each of them.

The nouns include several clearly outlined groups: 1. Simple words; 2. Nouns, formed by adjectives; 3. Nouns formed by verbs.

The simple words usually are general linguistic lexis, which do not distinct with high usage in the conversational speech and is from the lexical corpus at language level B2-C2: for example, *кобилица* (1. yoke, cowstaff; 2. balance/scale- beam), *саламура* (brine), *вретено* (spindle), *застой* (standstill, stagnation; congestion), *греда* (beam), *пихтия* (jelly), *бримка* (stitch), *бразда* (furrow), *висулка* (pendant), *зъбец* (1.tooth; 2. cog), *камшик* (whip), *кинжал* (dagger), *спица* (spoke), *плитка* (plait; tress, braid), *решето* (riddle), *склон* (slope), *устие* (1.mouth, outfall, outflow; 2.orifice; 3.outset), *хребет* (ridge, spear, crest), *русло* (1. river-bed, channel; 2. course) and etc. In the scientific speech they are usually used to characterize objects as per form, consistency and other external peculiarities.

The nouns, formed by adjectives are typical general scientific lexis. A big group of them are words from feminine gender with the specific ending **-ост**. It is known that in Bulgarian language there are only five words from masculine gender with this ending: *пост* (1.post; 2.guard, sentry; 3.post; 4.fast, fasting), *гост* (guest, visitor), *мост* (1.bridge; 2.axle), *тоост* (toast, health), *лоост* (1.lever, heaver; rod, tiller, bolt; 2. bar), which are monosyllabic words, and these from feminine gender are numerous and usually are long, as well as compound words: *вероятност* (possibility), *взаимозависимост* (interdependence), *изменчивост* (changeability), *жизнеспособност* (viability, vitality), *достоверност* (authenticity), *крехкост* (brittleness, fragility). They usually denote characteristics, but they may denote and objects: *вкамшеност* (fossil), *окръжност* (circumference). Other nouns here are these with endings **-ина, -ота**: *гранапина* (roughness), *стръмнина* (steepness), *същина* (essence); *мокрота* (wet, dampness).

The verbal nouns, in the terminological, as well as in the general scientific lexis have two basic meanings: with an ending **-не** they denote a process, and with an ending **-ние** - result from the process: *вплитане* (weaving), *впръскване* (injecting), *заглъхване* (becoming deaf, dying away; fading away; fading, waning), *изопване* (stretching, straining), *източване* (drawing out, draining, shooting up); *внушение* (suggestion), *колебание* (hesitation, variation, fluctuation, oscillation), *смущение* (disturbance).

The compound nouns are few in number and without typical common characteristics in meaning: *местообитание* (habitat), *иглоубождање* (needle-pricking, acupuncture), *злоупотреба* (abuse, misuse).

Also from the point of view of the structure, there is noticed a high frequency of specific prefixes – in some cases they come from the verb (at verbal nouns), and at others are an own word-building element, for example: възникване (origin, rise), възобновяване (renewal), възпаление (inflammation), възприемчивост (receptivity), възпроизвеждане (reproduction); безтегловност (weightlessness), безкрайност (infinity), безветрие (windlessness); завихряне (swirling), завъртане (turning), закривяване (bending), замъгляване (fogging, clouding); изтръгване (uprooting), изхабяване (blunting, wasting, wearing out), издатък (edge), изрезка (clipping); неизгодност (unfavourableness), непропускливост (impermeability), неизбежност (inevitability); обмяна (exchange), обкръжение (surroundings), обобщение (generalization; summary); насечка (notch), наличие (presence), налобяване (unevenness, roughness), наслояване (laying, stratifying); преживяемост (survival), преимущество (advantage, priority), превъзбуда (overexcitement); съотношение (proportion); съпоставка (comparison).

Without a high degree of frequency, but enough noticeable are displayed the diminutive nouns, the substantivated and the nouns-exceptions with an untypical ending for feminine gender: хълмче (hillock), жичка (filament), кълбце (globule), коленце (nodule/little knee); делимо (dividend), съдържимо (content), крива (curve); плесен (mould), плът (flesh), мощ (might).

The adjectives: as their most distinctive peculiarity outlines the presence of enormous number of compound words, formed usually by 1/ two full value words; 2/ a numeral + a full value word; 3/ a preposition + a full value word, for example 1/ брадавицовиден (wart-shaped), дълговерижен (long-chain), грубовлакнест (rough-fibrous), бледожълтеникав (pale-yellowish), бодилообразен (prickle-shaped); 2/ двуосен (biaxial), двукратен (double), двойноусукан (double-twisted), десетократен (tenfold), тристъпален (three-stage), второстепенен (secondary); 3/ безразборен (promiscuous), безвъзмезден (free, unpaid).

Typical meanings of the compound adjectives are 1/description of form: гирляндopodobен (garland-shaped); копиевиден (spear-shaped); клиноиден (cuneiform); керемидообразен (tile-shaped); двойновдлъбнат (double-concave); 2/ description of consistence – гелообразен (gel-like); дребнозърнест (small-grained); 3/ description of colour – пурпурно-виолетов (crimson-purple); сивокафеникав (grayish-brown); бледожълтеникав (pale-yellowish); 4/ description of place – срещуположен (opposite); извънтелесен (out-of-body); 5/ description of structure – двуосен (biaxial); двукрил (dipteral; two-winged); едновежижен (mono-chain); тънкостенен (thin-walled); тристъпален (three-stage); 6/ description of properties – бързопреходен (fast-transitional); краткотраен (short-lived); нискочестотен (low-frequency); яйценосен (ovipara-

rous); водоустойчив (water-resistant); жизнеспособен (viable); 6/ description of functions - защитно-приспособителен (protective-adaptive).

Very typical are the adjectives with meaning "*negativeness*", as they are formed with the preposition "*без*" and the particle "*не*" in their capacity as prefixes: безпорядъчен (disorderly), безусловен (unconditional); небрежен (negligent), недостъпен (inaccessible; unapproachable), неизменен (unchanged), неизтощим (inexhaustible), неимоверен (unbelievable; extraordinary), незначителен (insignificant), незатихващ (unfading), ненаситен (insatiable; unsaturated), необозрим (boundless, vast), неподатлив (unsusceptible), непроницаем (impermeable).

The group of the simple adjectives contains such with the typical suffixes *-ест*, *-ист* with meaning "has a form of", "looks like", "it contains big quantity of": зърнест (grainy), ивичест (stripe-shaped), иглест (acicular), кашест (mash-like), кълбест (round, globular), кукест (hook-like), перест (feathery), пенест (foamy), пихтиест (jelly-like), пещерист (cavernous), петнист (spotted), блатист (marshy), which are also with high frequency at description of objects.

As per origin the simple adjectives are: 1/ simple initial; 2/ formed from nouns; 3/ formed from verbs; 4/ formed from numerals and other parts of speech. Simple initial are for example ален (scarlet), бистър (clear), гол (naked, nude), глух (deaf), груб (rough, rude), гъст (thick), кос (slanting), крив (crooked), прав (straight), зрял (ripe, mature), див (wild); formed from nouns – with suffixes *-ен, -ов*: жълтъчен (yolky), димен (smoky), вихров (swirling), кръгов (circular), мостов (bridge), рогов (horn, horny), битов (of life); formed from verbs - извратен (perverted), изявен (expressed, manifested), разслоен (stratified); formed from numerals - двояк (double), двойствен (dual), първичен (primary, initial), вторичен (secondary), третичен (tertiary).

Basic specific peculiarities of the verbs are the various prefixes, which express many shades in the meanings. Even if the basic verb is known from the lower language levels, the prefixes change the meaning and in the text in the new meaning it appears as a problem: see for example режа - нарежа (to cut – to cut into pieces/ to slice), подрежа (to trim), срежа (to cut, to shear, to snap at), изрежа (to cut off, to clip off), прережа (to cut through), порежа (to cut), зарежа (to leave, to abandon, to desert), разрежа (to cut up, to slit, to dissect).

Typical prefixes for the verbs in the general linguistic and general scientific lexis in the scientific medical text are: "**в**" - вграждам (to build in), вгъвам (to sag), вдавам (to jut out, to cut into); "**въз**" - въздействам (to influence), възобновявам (to renew, to renovate), възпроизвеждам (to reproduce, to recreate); "**из**" - изтласквам (to push out), изчезвам (to disappear), изчерпвам (to exhaust, to deplete, to

spend), ;"за" - завъртам (to turn, to spin), заглъхвам (to become deaf, to fade away, to die away), заграждам (to enclose, to surround); "на"- набраздявам (to furrow, to line), навивам (to wind (up), to roll (up), нагаждам (to adapt , to adjust); "над" –надграждам (to overbuild), надвисвам (to overhang, to threaten), надвишавам (to exceed); "о", "об"- обвивам (to wrap, to cover), обикалям (to go/walk round, to tour), обкръждавам (to surround, to encircle); "от"-отдавам (to give, to render, to ascribe, to devote), отвеждам (to lead/ take away), отклонявам (to divert, to deflect); "по" - побледнявам (to turn pale, to grow pale, to whiten), повличам (to drag (along), to sweep away), поглъщам (to swallow, to absorb); "под" - поддавам (to sag, to succumb, to give in), подлагам (to put under), подплатявам (to line, to wad); "пре"- преброявам (to count), прегъвам (to fold, to bend), преграждам (to block, to obstruct); "при" - придружавам (to accompany), придърпвам (to drag), приобщавам (to incorporate, to unite); "про" - произлизам (to derive, to be a result of), произхождам (to originate), промъквам (to sneak); "раз" - разгъвам (to unfold), раздвоявам (to split, to divide in two), разклонявам (to ramify, to branch out); "с", "съ" - способствам (to further), сраствам (to accrete, to knit together, to grow together), съвместявам (to combine), съотнасям (to correlate); "у" – удвоявам (to double), усреднявам (to average), удължавам (to lengthen, to prolong).

Typical for the scientific style is the broad usage of all types of participles. With highest frequency in the presented by us dictionary are the past passive participles, which is explicable having in mind the active usage of passive voice in this type of texts: възпроизведен (reproduced, recreated), всмукан (sucked in, absorbed), извит (bent, curved), изтласнат (pushed out), придобит (acquired, gained), изкривен (bent, crooked). At second place as per frequency of usage are the present active participles: възлизащ (amounting), зреещ (ripening), блуждаещ (straying), въвеждащ (introducing); after this follow the verbal adverbs, expressing a parallel action - белязвайки (marking), вдлъбвайки (concaving), излагайки (exposing), допринасяйки (contributing). With lower frequency but also distinctly expressed are the present passive participles – възвратим (retrievable), въображаем (imaginable), делим (divisible), възстановим (repairable, refundable), доловим (perceptible), and the past active participles – довел (had brought), внедрил (had introduced), изпитал (had tested, had felt), изчезнал (had disappeared).

The different types of participles have specific syntactical roles and the knowing of their forms and uses is an important condition for successful work of the foreign students with the scientific text.

We pay special attention in the dictionary and to the compound and specific for the scientific text prepositions and adverbs: безпрепятствено (unimpeded, without

hindrance, freely), безусловно (unconditionally), буквально (literally), исключительно (exceptionally, exclusively), извънредно (extraordinary, extremely); вследствие на (as a result of, in consequence of), в сравнение с (in comparison to), чрез (through), подобно на (similar to) and etc.

Conclusion

The introduction of the terms of each new university discipline is work of the teacher, and their mastering – of the student. But at equal volume of tasks from this type, the foreign students need much more time, not small part of which they have to devote for mastering of great number of new and recalling of old one, studied for example in a preparatory course and not fresh in their memory general linguistic and general scientific lexis. The enormous quantity of new words and the lack of habit, especially in first course, to be separated the major as per meaning from them – these are problems, which the students overcome difficult without somebody else's help. The training dictionaries have an important role in this process.

The presented here dictionary is the first from a series of dictionaries, which we prepare, with the following characteristics: 1. training dictionaries; 2. based on topical for the students training texts; 3. intended concretely for the audience of the foreign students in the medical university.

This series stipulates the preparation and publishing of 5 types of training dictionaries [Минков, Костова 2013]: 1/ a dictionary of the general linguistic and general scientific lexis – represented here, already published; 2/ a training terminological dictionary – an explanatory dictionary with the specific terms in the before-clinical disciplines; 3/ a mixed type of dictionary (including all layers of lexis – general linguistic, general scientific, terminological, but comprised in training texts only of one training discipline: for example biology, biochemistry and so on.) [Костова, Станчева, Минков 2010]; 4/ a dictionary of the foreign words in the scientific text; 5/ a medical training dictionary–phrase-book for work as per the clinical subjects and with patients.

These are training handbooks for students, which in some cases – as in the presented here, they unite a training dictionary and a notebook, carrying out concrete training purposes.

It is, however, important the teachers in the special subjects to be acquainted with the contents and the peculiarities of this type of dictionaries. They are not philologists and naturally - concentrating in the teaching of the subject, it is unwonted for them to give explanations regarding the structure, the grammatical peculiarities of

the words and so on. And this is not necessary. But they may have in mind the peculiarities of the scientific text, concrete linguistic difficulties of the students and at leading of the practical classes and lectures to watch for their speech - for example, to avoid foreign words, to substitute them with adequate Bulgarian synonyms, there are such and so on. In the groups for joint training of Bulgarian and foreign students there may not and does not have to be allowed lowering of the level of teaching or to be lost time, because of insufficient linguistic competence and linguistic uncertainty of the foreign students. The teachers, organizing their speech – written and oral speech, may have in mind the contents of this type of training dictionaries, which give clear notion about the linguistic competence of the foreign students, especially the initial stages of their training in the subject.

This way the training dictionary can be not only a handbook for the student, but also a mediator in the communication teacher - student, cooperating in this way for increasing of the efficiency of the process teaching-training, in which are interested in equal degree both of the participating parties. [Минков 2012].

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Sociomedical interaction in English: towards virtual hospital

ABSTRACT

In the study of Medical English, encouraging medical undergraduates to reflect on the medical content of texts and genres proposed and sometimes imposed by society, as relevant to health and healthcare is an indispensable component for online student-teacher interactions. In keeping with the principles underlying CDA (critical discourse analysis), linkages and comparisons between texts belonging to different genres are explored in relation to set of thematically-related texts relating to health aspects of water and foodstuffs. The paper presents a three-tier model for the qualitative analysis of individual texts and describes their typical make-up in terms of three broad categories of social contexts: individual, community and international/institutional levels. The model of analysis lends itself to quantitative, as well as qualitative, analysis of the ratio between medical and non-medical information in health texts, leading to the prospect of automatic on-line quantification in a computer template/platform that can guide teacher-learner interactions and comparisons of texts, thus ensuring that understanding of the forms and functions of today's complex hybrid healthcare texts is kept on a sure footing. Hence, thanks also to the efforts of the classroom teacher, the future global doctor will be empowered to shape his or her own ethical code in way which is likely to be more objective and balanced.

Key words: Computer platform/template – textuality – teacher-learner interactions – Medico-social contexts – CDA (Critical Discourse analysis) – Medical English

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1. Introduction

This paper proposes a new "template" for medical English teaching, in which textuality and interdisciplinary links, together with a coherent progression of conceptual contents, are an *a priori* concern in teacher-learner interactions. These interactions evolve and, as they evolve, the need for firm points of reference becomes all the more evident and essential. Within a framework based on textuality, interdisciplinarity and a need to reflect on sociomedical interaction in all its forms, it is possible for genre, text grammar, and the *GMER* principles (Loiacono 2011b, IIME undated) to be plied together in undergraduate medical education in such a way as to represent an alternative to, and a much needed escape from, those teaching approaches that deploy traditional instruments and methods in which acquisition of medical discourse's lexico-grammatical forms, specialized lexis in particular, is the *sole* objective.

In today's healthcare world, in keeping with IIME/GMER principles, the goal needs instead to be:

- a) exposure to as many types of medical discourse in English as possible;
- b) linkages between these discourses so that an understanding of the way they interact in a healthcare worker's typical day – the whole picture of medical discourse – can be grasped.

The template/computer platform in question is enacted in terms of an idealized *Virtual Hospital* that focuses on the multiplicity of interactions. It is being constructed in stages. The first stage was the realization of a film, *ForWard* (Loiacono 2010, 2011a/b; Loiacono, Lo Presti, 2010). *ForWard* is a film about medical emergencies shot in a real hospital using professional actors whose mother tongue is not English. The film was financed, created and directed by the author with the goal of providing a model of interaction with which medical students whose mother tongue is not English can readily identify.

The second stage will consist in the construction and experimentation of a website which recasts the film in such a way that a "fixed" (i.e. linearly sequential) digital video is embedded in a website. Within a hypertext structure, such as a website (Loiacono, 2004), access to the film can be constantly modified permitting, for example, the viewing of a specific sequence which is then intermeshed with exercises, for example, relating to the vast inventory of supporting photographic materials, currently being gathered in preparation for this second step.

The third stage is where a much more complex set of relations between website and other texts and tools coming from various sources can be built up so as to encourage

reflection on sociomedical discourse. In this respect, like any template, the approach has fixed and variable parts so that research-led insights that strengthen its adaptability and applicability in many teaching contexts will be introduced. In particular, work in CDA (Critical Discourse Analysis (Fairclough, 2001 [1989]), multimodality (Lemke, 1999), interdiscursivity (Sarangi, Roberts), (web) genre analysis (Martin, Rose, 2008; Swales, 1990), appraisal theory (Martin, White, 2005) will be incorporated.

This paper illustrates the background to last stages in the enactment of the template, and is concerned, in particular, with reflection on sociomedical discourse valid for all medical undergraduates including those whose mother tongue is English. It will suggest how online text analysis radically recasts classroom activities and teaching tools in ways that make the acquisition of Medical English more effective and usable for the various categories of learners (doctors, nurses, medical technicians and so on) that populate the healthcare environment.

Accordingly, since this stage requires students to distinguish between medical and non-medical discourse in different social contexts, *Section 2* of this paper deals with the presentation of a three-tier model of analysis to be incorporated into the template that mediates between text linguistic theory and specific health and healthcare texts, while *Section 3* describes the simultaneous application of the individual levels in this text analysis model. The model lends itself to quantitative/qualitative assessments that pave the way for computer modelling within the proposed template, a matter investigated in *Section 4* and summed up in the concluding remarks in *Section 5*. For both copyright and space reasons, the illustrative texts may be accessed from the Internet through the links provided in the first part of the *Reference* section.

2. Medico-social contexts

Critical analysis of sensitive areas in the communication of medical information – those where it is essential to comply with high medical standards when communicating across social strata in a global market – requires detailed analysis of texts, relating in particular to:

- a) medical information for improving life and promoting better health, e.g. through preventive medicine;
- b) ethical issues e.g. organ donation, in vitro fertilization; end-of-life protocols;
- c) medical environmental issues e.g. OGM, water and nuclear contamination.

They can, in our view, be best characterised in terms of the three-level model of analysis mentioned above which we will briefly outline prior to investigating the ways in which they interact and before suggesting how the model might be used to classify the medical/non-medical information qualitatively and quantitatively in greater detail.

1) The individual level in text analysis: this is concerned with exposing the deliberate omission of facts and/or the promotion of half-truths about medical information that cause consumers to make unsound healthcare purchases and/or investments. Snake-oil merchants, quacks and witch doctors infest the literary canon (Loiacono, 2012a) and constitute the historical precedents for today's social equivalents: e.g. viagra-selling online "pharmacies", adverts for "health-promoting" diets and so on. Among the genres belonging (mainly) to this category are advertorials and what we choose to call counter-advertorials which often occupy the same social and textual spaces. An example of this shared *milieu* are contemporary packets of cigarettes which, rather weirdly, contain two competing and contradictory texts: purchase-promoting branding and purchase-dissuading medical information. TV adverts for OTC pharmaceuticals, e.g. analgesics, are another example of this strange symbiosis where medical information is given (e.g. on Italian TV) in the form of a speeded-up voiceover in the final part of the advert. This complies with the "letter of the law"; but has the effect of prioritising pseudo- and non-medical information over medical information in a way that, somewhat questionably, attempts to reassure the viewer.

Contemporary society thus has the potential to *create* examples of what we may call disjunctive hybridity – co-packagings of polar intertexts such as those presented in Text 1 and Text 2, which strongly identify with the individual and his/her responsibilities; i.e. they "cancel each other out" in terms of the messages being given (cf. Fairclough's linkage between social context and intertextuality mentioned above). Medical information and non-medical information thus co-exist in the texts analysed in this paper affecting the individual in contradictory ways: we typically find "soothing" pseudo-medical information designed to assuage and reassure (Text 1), alongside demands from doctors (Text 2) that their readers be provided with the 'real thing' – accurate, unbiased and relevant medical information. This principle can be applied to these polar texts as well as many others, including those referenced in this paper (see for example Texts 9, 10 and 11).

2) The "grass-roots" community level of analysis: medical information belongs to everybody but often its management provokes social conflicts and communicative asymmetries arising from power struggles and changing social and political relationships, raising the question, once again, as to who really "owns" medical informa-

tion. With the rise of Internet, this level of medical dissemination is increasingly shifting from community meeting halls and debating chambers to Internet "forums" in which commercial and/or political half-truths are exposed increasingly through blogs and other online genres in relation to issues such as the effects of depleted uranium on soldier's health (see Nuclear Policy Research Institute, 2003 for a detailed "whistleblowing" account). The simultaneously top-down and bottom-up decision-making processes that this level entails are typically expressed in video-recorded debates on the websites of national parliaments and regional assemblies; one example of this emergent community debate genre is given in debates in the Welsh Assembly (e.g. Text 3) that make very clear political statements on the function of local communities in deciding the management of services, including health services, a matter also explored in relation to the Bundanoon website debate on tap vs. bottled water (Text 4) and the Victoria Government's programme to replace sweetened drinks with water that targets individuals via families and schools (Text 5). Despite such high-sounding names as the Health and Social Care Committee (Text 3), no doctor nor even a healthcare professional is present in the Welsh Assembly video, just politicians and representatives of the food and drink industry. In the author's experience, research into video debates in other similar assemblies throws up a similar pattern of pseudo-medical debates and interviews, an emergent Internet genre made up of texts that address communities on issues of health but actually contain a limited amount of medical information. Text 6 is one example. It is an *iHealthtube* video, which illustrates the interview subtype, again with reference to the bottled vs. tap water issue. As with the Welsh Assembly debate (Text 3), the medical information in the interview format is, in this and many other cases, minimal – little more than a springboard for an expert's lecture to the general public as the following transcript of the video makes clear:

Transcript of Text 6: Which is Safer: Bottled Water or Tap Water? What's gotten into us: Staying Healthy in a Toxic World

Interviewer: speaking of bottled water that ... it could actually be worse than tap water or ... or not as regulated is I think is how ... is how you put it.

Professor of Medicine: Yeah, the thing about tap water, no matter what you say about tap water, no matter what gets into tap water, it's still regulated; it's by law of course; you know, if your city's supplying hundreds of thousands of people with water, you have to keep testing it; you're constantly, constantly testing it. And it is an imperfect thing, as we mentioned before. I mean, it's imperfect for lots of reasons. It's imperfect because all kinds of things get into water. If you think about what gets into a river, it's a lot of stuff, a lot of bad stuff and water treatment facilities can't take all that stuff out. They can kill pathogens but they can't take synthetics

out. Now they're trying to figure a way out to reverse engineer all these plants but you gotta imagine this is going to be a tricky engineering thing.

Interviewer: Mmm!

Professor of Medicine: The trouble with bottled water is you not [only]... first of all, it's unregulated so who knows what kind of water are they putting in it. You've heard ... everybody knows these old stories that companies are just taking tap water and putting it in a bottle and selling it. The trouble with bottled water is it's not just the water inside, it's the bottle itself, right? So, again, if you test the water in a plastic water bottle you can find traces of the plastic in the water ... and it gets actually more worrisome when you're talking about a liquid that you warm up. So this became a big story for mothers, particularly because er I should say parents with nursing children ... when you wake up in the morning, say at 3 o'clock, and your baby is starving and you take a bottle of breast milk and you put it on the stove top and you warm it up, the plastic in the bottle can be leaching into the breast milk many times faster than it would at room temperature. So this is why one of ... one of the products that has been regulated recently after a lot of time, of yelling and screaming ... is they've finally taken this chemical called Bisphenol-A out of plastic baby bottles. Now that just seems to make common sense but it took a long time to get people to wake up to that.

The second part of the 'subtitle' associated with this text through an introductory overlay in the video itself is *Staying Healthy in a Toxic World* which suggests that the video ought to be about medical information. But, like many texts in this genre, a careful reading of the script raises questions as to what the text is really about. In this case questions raised include: is it about the dissemination of medical information or about legislative gaps? Is the question posed in the title really being answered? Or is the focus more generally on the individual's awareness of socio-political issues in line with the first part of the subtitle *What's Gotten Into Us*. When formulating your own opinion bear in mind how repetitive the text is with many fillers (*of course, you know*).

3) The national and supernational institutional level of analysis: cucumbers from Spain were recently wrongly blamed for the deaths of people in Hamburg from an E Coli outbreak; import bans were slapped in place immediately, wreaking economic havoc in the field of perishable goods for Mediterranean countries like Italy and Spain. A few days later medical information seeped through indicating that from a medical (i.e. toxicological and nutritional) standpoint the cause was not the one initially invoked raising the prospect of financial compensation (Texts 7 and 8). Pandemics and epidemics such as swine flu, microbiological warfare, OMG foods,

and mad cow disease are further cases where panic and pseudo-medical information tend to prevail over correct medical information creating international conflicts. This form of avoidable mismanagement of medical information encompasses the highest levels of socio-political institutions and, of course, the media on a global scale and raises issues about ethical standards in health/medical communication.

3. The interdependency of levels

Deceptively simple as it may at first sight appear to be, the 3-tier model for text/intertext analysis described in the *Section 2* is the basis for this article's attempt to design a framework readily introducible into the template described in *Section 1*, capable of measuring and quantifying, possibly automatically, the balanced relationship between medical and non-medical information in texts, and, crucially in terms of the probable reliability of a particular sociomedical text, the absence of such a balance. The model, in particular, suggests that analysis of intertextual ties (see for example the discussion of Bisphenol-A e.g. in Texts 4, 5 and 12) can help highlight gaps in this balance and lay the foundations for the subsequent step, not yet undertaken in the author's research of quantifying the ratio of medical to non-medical information automatically. As CDA suggests (Fairclough, 2001), highlighting discrepancies can be enacted through the process of reconstructing the links between texts, the social agents and social contexts that are the driving force behind them. Given the vastness of the canvas, the author's current research approaches these issues by looking at texts and genres with medical/non- medical information co-packagings that link end-consumers with nutrition, or to be more precise, what people think they are eating and drinking. This involves exploring the medical issues raised in a series of texts belonging to different genres but which, in fact, constitute sets of intertexts that cross genre boundaries.

A good starting point for the analysis of the manipulation of medical information and understanding of how texts work within and across the three levels indicated in *Section 2* is the advertorial. As its name suggests, it is, at least in origin, a printed advert disguised as an editorial that "takes in" unsuspecting readers. Like more recent genres native to the web and which seek out gullible individuals, such as phishing, the advertorial has now "emigrated" to the web and, in so doing, has sharpened its teeth (Text 1). The "medical" advertorial, in particular, presents "medical content" that looks genuine but requires careful examination that applies the 3-tier model described in *Section 2* systematically. To illustrate how can we detect and measure likely manipulations textually we may investigate potential textual markers that relate specific individuals (as should be the case with medical diagnoses) to

mass merchandising (which is not the goal). One such marker relates, as Fairclough points out, to the textual phenomenon of synthetic personalisation, a compensatory mechanism used by the advertising industry to create manipulative links when addressing mass audiences as though they were individuals through inclusive language usage:

Examples would be air travel (have a nice day!), restaurants (welcome to Wimpy!), and the simulated conversation (e.g. chat shows) and bonhomie which litter the media. These general tendencies in the order of discourse of modern society accord with the nature of its power relations and modern techniques for exercising power.

(Fairclough, 2001: 62)

This process is clearly at work in various texts described in this article. In particular, note how in Text 1 in a dialogical context where the tactic of presenting "You have cancer" as addressed to the individual reader is backed up by the ironic reference to "three little words" normally associated with the positive meaning of "I love you" but presented in this context, in a polarised "co-packaged" way, with a negative meaning. The simulated conversation, supposedly involving "you" and "me" as real individuals, uses the same kind of strategy exploited in individual/mass market T-shirt icons e.g. "I love New York" in a marketing process that, as we might suspect, involves very little medical detail. What for example does "has a specialized team for every kind of cancer from the most prevalent to the most obscure" really mean in relation to successful individual therapeutic outcomes? As suggested above, intriguingly, the relationship between advertorial (Text 1) and counter-advertorial (Text 2) rightly invites readers to explore genres from a "multi-perspective" standpoint that integrates individual, community and institutional levels and encourages us to shy away from a single, probably biased, perspective.

Being critically on one's guard is one thing; an excessive biased reaction is another. Milligann (2009: 134) exemplifies the dangers of biased "over-reaction" quoting a series of letters sent to *The Lancet* claiming that the prestigious journal had published a scientific article that amounted to an advertorial since some of the writers were employees of a pharmaceutical company; all this raises the question of who, other than a sponsor, can vouch for the integrity of the data and the presentation of the results and for the integrity of those who cry "foul play". Counter-arguments to such protests can be put forward (and duly were in the case quoted) again raising the question as to the rules for the dissemination of medical information. These ethical concerns appear to have encouraged the rise in the early years of this century

of the *International Committee of Medical Journal Editors* (ICMJE: www.icmje.org/) which brings together journals that follow the ICMJE's URM rules (i.e. *Uniform Requirements for Manuscripts Submitted to Biomedical Journals*). These apply the IMRAD (*Introduction, Methods, Results and Discussion*) structure or rather the AIMRAD structure (where an *Abstract* is incorporated) in the (rightly held) belief that it is not an arbitrary publication format but rather a consolidated cultural reflection of the process of scientific discovery.

Various legislative responses have also been provided, some more successful than others to this ethical issue. One deterrent (Pearson, 2000) is to legislate, where harm to a competitor or the public is involved, in such a way as to prosecute a company, rather than a publisher, for disseminating information that covers up rather than reveals and hence breaches trust by failing to be impartial. Another is to ensure "loop-holes" are properly "plugged" through published guidelines and recommendations for publication practices that strengthen and uphold ethical standards in biomedical communication.

In the medical field, various guidelines have been developed that attempt to cross traditional barriers by involving a much broader spectrum of "stakeholders". This solution goes beyond the individual perspectives of medical journals, medical writers, publishing professionals, and the pharmaceutical and biotechnology industry. Bareket-Samish et al. (2009), for example, argue the case for good publication practice guidelines that reflect and promote the holistic approaches adopted medical communication agencies, as emergent industry self-regulators capable of merging traditional publishing safeguards with a more balanced approach to marketing, medical education and consumer protection needs on both a short and long-term basis. Medical communications agencies such as *Publicis Healthcare Communications Group* (www.publicishealthcare.com/), *Huntsworth Health* (www.huntsworth-health.com/), and *MedWrite International* (www.medwriteinternational.com/) increasingly support the development in the English-speaking world of medical publications in collaboration with research sponsors and authors/researchers responsible for the design of the study and the collection of data. These agencies' practices – of great interest to scholars concerned with the sociolinguistic aspects of texts – relate to interactions between medical writers and editors that affect the mechanics of an agency, its ties with authors, journals, congresses, sponsoring companies, submission processes, data security, confidentiality and training vis-à-vis sensitive data. They respond to a pressing need, shared by medical writers and text analysts, to examine medical communication, its systems and genres in a much wider perspective than the traditional analysis of (A)IMRAD style research articles, which tend to isolate the research article genre vis-à-vis the sociocultural and, in particular, socio-po-

litical context in which the genre and its individual instances exist (Loiacono, 2012a).

These agencies' practices are aligned with existing publication guidelines, such as those for publications like the *BMJ* (www.bmj.com/about-bmj/resources-authors/article-submission) and *The Lancet* (www.thelancet.com/for-authors) and indeed, as may be appreciated from these prestigious journals' websites, can be interpreted as having stimulated awareness in the medical community to cover several key, and hitherto murky, issues such as authorship, transparency and acknowledgements, potential conflicts of interest, financial disclosures, protocol reviews as well as technological innovations such as submission of video material.

These remarks point to the changed status of medical information in current society and the ensuing dialectic on a global scale. Instead of short-term emergency body repairs (classic surgery), today's medical communication promotes a long-term vision of quality of health over an individual's entire lifetime, e.g. on contentious issues such as the manipulation of medical information in relation to food and water supplies. The advertorial in its original inspiration is associated with commercial exploitation pure and simple, selling in a blatantly obvious way but covered by a thin veil of medical authority. As such, it was presented directly to individuals. Today, medical communication is typically mediated in terms of the 3-tier structure presented in *Section 2*. A good example is the issue of Sports drinks which clearly, ought to function at the individual level, whereas in fact the other two levels, as predicted by our model, have become increasingly involved. At the international/institutional level, this has arisen because articles (e.g. Text 9: *The truth about sports drinks* in the *BMJ*) have contested the apparent support (Text 10) given by EFSA (*The European Food Safety Authority*: www.efsa.europa.eu/) for the Sports drinks industry's claims that their drinks, with their electrolyte replacement function, hydrate better than water, a debate that seems to bear out claims the absence of direct medical support for the drink industry's claims. The spat between the *BMJ*, Sports drinks companies and EFSA accused of generating needless fear, which is precisely about the status of guidelines in contemporary medical communication, would appear to have led to dissemination among the running/marathon community of unbalanced information as is apparent in the witty article (Text 11) entitled *Pouring water on sports drink health claims* about the dangers of prehydration (drinking before you go for a run) which appeared in the *Irish Times* (www.irishtimes.com).

Sports drinks are among the sweet drinks the Victoria Government has targeted in their campaign (Text 5) which specifically calls on sports facilities and organisations to 'break the link between sport and sweet drinks'. An important feature in this website (Text 5) is that as a government in the Australian Federation it is putting its

case to community levels that directly involve health professionals, specialist clinicians included, and in doing so links them to other social agents, such as the politicians in local government. Also via the appeal to families and schools, it ensures that individual children get the "tap into water" message. From this standpoint, although the text does not contain much direct medical information as to why children "don't need sweet drinks", thanks to its involvement of many social agents, it *does* fall in line with the multi-perspective model outlined in *Section 2* and would therefore score high on an automatic computer-based quantification index that detects the presence of the three interacting levels described in *Section 2*. Much the same can be said about Text 4 which relates to the community level insofar as it is the website expression (www.bunddyontap.com.au) of the decision of the Bundanoon community in New South Wales to be the world's first municipality to ban the sale of bottled water and to promote instead the availability of tap water. The site demonstrates the multi-perspective awareness advocated, as shown in the *Premium Bottle text* (Text 4b) which mentions the toxic plastic issue raised previously. This awareness is perhaps one reason why the community's campaign received worldwide media attention. The final text on water regulation(s) (Text 12) relates to the *UK Drinking Water Inspectorate* (www.dwi.gov.uk/) which is an independent regulator of public drinking water supplies with an advisory role as regards private water supplies. Its site is a compendium of stringent tests carried out bearing in mind the underlying medical criteria as well as one that complies with the model we have outlined in *Section 2* as it marries the needs of all three levels, responding to individual complaints while attending to the requirements laid down by the European Union.

4. Discussion

This paper charts the relationship between medical and non-medical information in contemporary health and healthcare texts. Implicitly, it also charts the relationship between medical communication and medical information, and its reliability. As such it constitutes part of the author's long term commitment to research into medical communication and, in particular, the relationship between medical systems and medical genres within the process of communicating medical information and knowledge. It does so mainly from the perspective of medical education of medical undergraduates learning about this relationship as they progress in their preparation for a career as GPs.

Medical information and medical communication may be explored as two different concepts which function in tandem as the two main pillars of medical education. The term 'medical system', and terms such as 'medical communication', and 'medi-

cal information', as adopted here, are, of course, closely related to the terms 'health-care communication', 'healthcare system' but have the advantage of underscoring the roles and perspectives that doctors *must* assume and *be trained to assume* vis-à-vis others, which includes ethical and occupational aspects. The paper views a doctor as a primary social agent, guiding the management of health and healthcare systems and responsible for the medical decisions that inform the major genres of medical communication: guidelines and protocols, the former concerned with general principles to be heeded in a medical system, the latter with the rules for implementation of these guidelines. Texts 13 and 14 show that the latter may be looked upon as 'front-line' micro-level implementations of the overall guidelines for a medical system, that will involve many healthcare specialists other than doctors. They also suggest that it is doctors who take decisions about, and, above all, shoulder responsibility for, changes to established procedures, which involves (and has always involved from the time of Hippocrates onwards) ethical criteria as a core value in medical activity and medical training and education. It is doctors, too, who bring about changes at the macro-level of a medical system by ensuring that guidelines are kept up-to-date on the basis of accumulating evidence from medical research, epidemiological studies and evidence-based medicine. It is also they who, in specific instances and on the basis of personal experience and judgements about the way an individual patient is responding to therapy, apply day-to-day changes that modify the strict procedures laid down in protocols. It is they to who protect consumer interests (see Texts 9 and 11). Although they are only one component, doctors also have an important role to play in the way that 'health systems' function in society. The WHO's definition, published in 2007, clarifies this:

"A health system consists of all organizations, people and actions whose primary intent is to promote, restore or maintain health. This includes efforts to influence determinants of health as well as more direct health-improving activities. A health system is therefore more than the pyramid of publicly owned facilities that deliver personal health services. It includes, for example, a mother caring for a sick child at home; private providers; behaviour change programmes; vector-control campaigns; health insurance organizations; occupational health and safety legislation. It includes inter-sectoral action by health staff, for example, encouraging the ministry of education to promote female education, a well-known determinant of better health."

http://www.who.int/healthsystems/strategy/everybodys_business.pdf

This is a wider concept than that envisaged by the term 'healthcare systems', which as the WHO's definition implies, are concerned solely with delivery of health ser-

vices. The expression ‘inter-sectoral action by health staff’ leads us to understand and reflect on the fact that it is again doctors who, despite not being health system designers, nor even front-line health providers, have an important say in the way health systems are shaped today as in the past (Loiacono, 2012b). We may possibly disagree with certain aspects of the WHO’s definition about health systems. We may look on the definition as an ideal rather than a reality as it is open to question on many points. In particular, we may express scepticism as regards the ways, and degrees to which, the concept of health system is interpreted, accepted or rejected in different cultures and societies and the degree of involvement of accurate medical information and medical communication in each such system. But doctors inevitably *do* influence the development of health systems, as they have always done, through their knowledge of medical systems, of which medical communication is an important and, in our belief, under-researched component. Their ability to express a critical interpretative stance on health and healthcare systems is increasingly recognised and incorporated into medical degree courses around the world, in particular as regards the need to train global doctors in a world of global communications (see Loiacono, 2011b for the GMER principles).

This raises the issue of standardisation and, consequently, non-standardisation in medical communication. While digital communication systems may relay medical information and knowledge from one corner of the planet to another in a split second, their messages are open to be misinterpretation. This is not so much because of failures in understanding English, the universal language of medicine, though these do occur. Rather it is because of the non-standardisation of medical communication and, in particular, because of the different semiotic conventions and variations in the text types and genres used in different social contexts and cultures. The mismatch between the quality of medical knowledge and the quality of its communication can arise for a variety of reasons (Loiacono, 2012a). Every day those of us who live in Italy read about cases of what Italians call *malasanità* and realise that many errors arise because instructions about what to do were wrongly applied: an inaccurate dosage, the wrong tube inserted and so on. They are of course not confined to Italy and are reported in the media in many parts of the world almost daily. Text 13 makes interesting reading both as regards its view of the way a health system is typically viewed by various individual and corporate ‘stakeholders’ in a health scandal. However, even more interesting in the context of this paper’s objectives, are its suggestions and implications that the quality of medical communication is poor at both individual and institutional levels. Difficulties, errors and failures in communication can arise in many ways. Potentially faults may arise at the micro-level because guidelines and protocols may have overlooked the need to prescribe, for example,

the use of colour codings for intubation or, even worse, may not have been implemented because, through lack of finance, oversight, and/or inadequate communication, old equipment was used which was incompatible with the protocol (see Loiacono, 2012a: Chapter 2 for a detailed account of colour systems in medical communication). Errors can also arise at the macro-level, because of cultural differences. How quickly, for example, does the average foreigner forced to resort to an Italian *pronto soccorso* catch on to, and deal with, the colour-based system, probably unique to Italy but which could possibly become a European if not international standard, for the initial assessment of the seriousness of a patient's condition, the waiting times involved? The answer is probably a lot better than without the visual/colour system as both written and oral discourse require translation.

It is hardly surprising in the light of the potential for communicative 'error' that the proposed computer platform/template incorporates medical events which serve as paradigm examples of how medical communication evolves, becomes codified, and takes on the modern forms we use nowadays. With the help of a medical timeline, it is expected to focus on how events have shaped the process whereby medical communication becomes codified, and turned into a system of communication expressed through medical genres such as guidelines and protocols. The computer platform/template explores online textual representations in which medical communication shows recognizable forms and features evolving into new genres and hybrid forms, many of them simulated medical training films of US origin but with a clearly standardising and globalising intent.

As described in the previous sections, medical communication is enacted using a variety of genres, written, spoken, and multimodal, some of them well-established in the medical field. In addition to those mentioned above, we may mention editorials in specialised journals, scientific papers, abstracts, medical reports, discharge summaries and so on. Many have undergone a process of hybridization and produced genres such as counter-advertorials (Text 2) that represent the medical profession's awareness of, and response to advertorials, pseudo-medical texts which are essentially adverts for medical products and services disguised as learned opinion about their efficacy (Loiacono, 2011a). Some genres, instead, are evolving parallel with technological change: online medical counselling, mobile applications in medicine such as self-evaluation, self-diagnosis and video-based medical interviews. These developments are a further indication of why doctors need first and foremost to be aware of the consequences and implications of such innovations in medical communication. All this needs to be seen in the broadest perspective that includes a historical awareness, cross-cultural considerations and educational implications. This is why the paper is at once both diachronic and synchronic in its approach.

Events in the past are seen through the perspective of the relationship between a medical system and the communication of the medical information that pertains to it.

How good is a trainee doctor's ability to recognise genres and conventions and to spot differences in medical communication in different social contexts and different societies? Experience in teaching undergraduate and postgraduate leads to the conclusion that awareness-raising is much appreciated by students and requires innovation in the way communication in English is taught. We believe that a broad perspective is essential and do not subscribe to the view of Medical English, often presented in course books which explicitly or implicitly refer to this concept, as restricted to direct doctor-patient interaction. Quite often a patient and a doctor will often meet only briefly in hospitals. Instead much of the interaction will be between a patient and other healthcare workers such as nurses, laboratory technicians and paramedics who, for example, will take a patient's medical history and carry out a physical examination, a process known technically as clerking and for which there is considerable evidence to suggest the equal or superior skills of, for example, nurses than doctors. As Text 14 shows the degree of delegation varies from country to country and suggests the process of evolution in this respect at an uneven pace in different parts of the world which certainly brings about improvement, the upside, but also introduces, the downside, non-standardisation.

However, significantly, and in support of the model of medical activity and education envisaged in the template, innovation in teaching needs to be offset by an understanding of ethical traditions in medical communication. The author's experience in medical classes has been that classical references are always welcome. Students in general and medical students, in particular, need to show analytical skills in their learning strategies and, though they seem to appreciate innovation in teaching, they particularly like it when the link with previous steps is evident and when concepts are presented as a sequential and co-ordinated whole. For example, emergency medicine can be looked on as a medical system that envisages a number of steps: calling an emergency service for an ambulance, despatching an ambulance of the right type (Mike, India, Victor), providing emergency aid, such as resuscitation via a phone call while an ambulance is arriving, continuing therapy in the ambulance, deciding where to hospitalise a patient, i.e. which hospital to go to, all of which will be followed up by other steps in the hospital such as initial assessment of the patient's condition and assignment to a ward, laboratory tests, surgery, pharmaceutical regime and so on before final discharge. Some of these steps will not, of course, be enacted in any specific case; they are, however, implemented through protocols, procedures and instructions to be followed rigorously in treating patients.

Many of these steps will not directly involve a doctor and are implemented instead by healthcare professionals such as despatchers, nurses and paramedics. But, as mentioned above, budding doctors need to be aware that medical guidelines govern the way in which whole or parts of a medical system are conceived of and shape the way protocols are drawn up. Medical guidelines in today's world are often redrawn as a result of legislation, requests by government health ministries or departments, or a need perceived by society in general or by medical doctors themselves for changes to be made in a particular medical system as a result of new medical evidence.

The broad perspective that we adopt in the template has much in common with the philosophy of CLIL (Content and Integrated Language Learning). In our view (Loiacono 2012c) the 'content' of Medical CLIL relates to the information, knowledge and procedures that a medical system needs to impart while 'language' may be seen as the set of discourse strategies and above all the genres that medical communication deploys. All this goes to show that medical communication is a complex process which calls for close investigation and analysis as well as a comprehensive outline of the social, linguistic and semiotic aspects that interact in the process itself. The complexity of this process includes, but often transcends the ideational, interpersonal and textual variables that scholars such as Halliday (e.g. in Halliday, Matthiessen, 2004) have shown manifest themselves in any interactional event. Indeed, the connectedness of, and connectivity between, interactional events needs to be stressed in medical communication, a reflection that many things are going on at the same time, including multiple simultaneous interactions on different planes which TV programs such as *ER* and *Dr. House* which, despite their sometimes dubious medical content, have rightly foregrounded (Loiacono, 2011b). Learning to connect specific genres to medical systems and specific events within a system increasingly requires doctors to come to terms with what we call multi-texts which are in keeping with Halliday's view of texts as units of meaning in context (Halliday, 1978:60) but which function by bringing together, not one, but rather a set of interacting contexts and text forms. This and other perspectives on text and genres are explored with micro-level text and genre analysis in the proposed template as a way of getting to grips with medical communication.

5. Conclusions

How much fruit, sugar and fat are there in your favourite ice-cream? In a sense, medical culture is also in need of quantification of how much medical information there is in a debate in a Health Committee, in an iHealth video, or in a medical blog? This article has attempted to lay the foundation stones for investigating and

measuring the relationship between medical/non-medical information co-packagings in socio-political communication and the manipulations that occur across social and textual levels. There are many ways in which measurements could be carried out including contextualised comparative word counts. Such measurements go beyond the scope of this article which is concerned more with identifying what needs to be measured and above all *why*.

Ethical considerations suggest that a balance is required in the representation of medical and non-medical priorities in many social contexts that goes beyond the current levels of representation, frequently marked by conflictuality or mutual exclusion and/or disregard for others' positions. Corrective efforts to put in place procedures and practices that transcend or sidestep situations giving rise to various forms of bias (exclusions, misrepresentations or conflicts) certainly exist and have been exemplified with the brief mention of two cases studies – private medical writing agencies and public water management inspectorates. The troubleshooting functions of such agencies, many created or instituted in recent years are designed, with varying degrees of success, to pre-empt and sidestep such phenomena as public outcries and insider whistleblowing and thus constitute an alternative for other, older remedial expedients (parliamentary enquiries, legislation, court rulings) that respond to, rather than ward off, conflicts manifested by a such genres of dissent as: counter-advertorials, wikileaks, blogs and so on.

In this respect, as well as being evidence of the efforts society is making to achieve balanced and ethically-informed communication through multi-perspective representations of social practices, the reference texts are also witness, on different but interacting social levels, to the hybridity of contemporary health texts that has been underscored throughout this paper.

Any one text is made up of elements of another. According to Fairclough discourse may involve 'manifest intertextuality' [...] direct quotations for example- or 'constitutive intertextuality (or interdiscursivity)', where one genre or discourse type uses the textual features of another apparently unrelated genre.

(Brown et al., 2006: 9)

In exploring the hybrid nature of medical/non-medical text co-packagings we have drawn attention to the usefulness of intertextuality as a tool for analysis and comparison that goes beyond the confines of well-known intertextual phenomena such as direct quotations or the features shared by texts belonging to the same genre. Instead we have taken a cross-genre and cross-cultural view of intertextuality applying

a 3-tier framework that shows how the process of medical communication by social agents other than medical personnel needs to emerge if ethical standards are to be maintained. An objective multi-perspective approach is a priority. The one proposed here studies sensitive contexts and identifies how medical information from medical and non-medical sources comes to be intertwined in an often contradictory mesh of medical, commercial, political and media interests. Future corpus-based/concordancing, statistical studies (Loiacono, 2001) and automated online statistical analysis that provides a 'DNA'-like analysis of specific health-related texts in line with the model described in *Section 2* are needed. There is a need to consolidate, for example, our understanding of cross-cultural differences which were evident but somewhat overlooked at the time when the swine flu epidemic broke out during which the Italian media reports showed remarkable differences in comparison with other countries' reports in terms of the quantity of the medical information exhibited. These cultural comparisons in the medical and political fields raise the question: "Are we facing a brave new world?". Only time will tell. For the moment we can leave readers to draw their own conclusions about today's medical culture and the similarities and differences with the past by inviting them to mull over what Bynum writes about the Enlightenment:

[It] was a time of impressive medical entrepreneurialism. Health mattered, and people were prepared to pay for it. This meant that ambitious (or devious) healers of all stripes could seek to carve out their niche in the medical market place. Telling the difference between the 'quacks' and the 'regulars' was not always easy, since many so-called quacks also generally operated within the cultural cosmology of medicine, and 'regulars' might advertise their therapies, use secret remedies, and cultivate notariety as a means of attracting attention, and thereby patients.

(Bynum, 2008: 41)

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- Text 4: Local community sociomedical website genre (Bundanoon's return to tapwater): <http://www.bundyontap.com.au/>; see also Text 4b <http://www.bundyontap.com.au/waterbottles.html>.
- Text 5: Community sociomedical website genre (Victoria Government's programme to replace sweetened drinks with water) www.goforyourlife.vic.gov.au/hav/articles.nsf/practitioners/Tap_into_water_everyday?openwebsite.
- Text 6: Sociomedical interview genre: the video, www.youtube.com/watch?v=OcTyhd_4TUE&feature=related, is entitled *Which is Safer: Bottled Water or Tap Water?* It is an iHealthtube video belonging to a newly published site iHealth Tube, <http://www.ihealthtube.com/>. The film provides a further reference to the interviewee's website: www.mckayjenkins.com, author of the volume: *A Silent Spring for the human body*.
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Sofija Mičić*

Languages of medicine – present and future

ABSTRACT

Languages for Specific Purposes (LSPs) are imperative of modern social development. The language of medicine is founded on Greco-Latin terminology and has specific lexical and discourse features.

The global spread of science and technology has made the English language *lingua franca* of international communication. Due to huge development of medical science and practice, the English language of medicine has become the leading language. Modern medicine has transgressed the boundaries of the Greco-Latin terms and must create a new terminology for medical branches, illnesses and disorders, state-of-the-art technology and the pharmaceutical industry. The English language of medicine has been extensively studied. It serves as a model for other nations as to how to create their languages of medicine which are under its strong influence. Medicine has numerous specializations and subspecializations which require specific language of medicine.

It is necessary to organise LSP teacher education at philological faculties.

Key words: LSPs, languages of medicine, English, medical terms

Languages for Specific Purposes (LSPs)

Specialized languages usually refer to the specific discourse used by professionals and specialists to communicate and transfer information and knowledge. There are as many specialised languages as there are professions. That is what has usually been known as Languages for Specific Purposes or, when applied to English, English for

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Specific Purposes (ESP), i.e., the special discourse used in specific settings by people sharing common purposes. Occupational registers provide an efficient code for the transfer of information among specialists, because they provide a practical and convenient shorthand for talking about complex matters specific to a field.

English for Specific Purposes (ESP)

The relevance of English in academic and professional settings began some decades ago, in the 1960s, and it has not decreased. Orr (2002, 1) said that ESP "is an exciting movement in English language education that is opening up rich opportunities for English teachers and researchers in new professional domains". Following Ypsilandis and Kantaridou (2007, 69), English for Academic Purposes (EAP) "refers mainly to the academic needs of students and of future professionals who would seek a career in the academic environment" and English for Professional Purposes (EPP) refers to "the actual needs of (future) professionals at work". These two broad fields or categories also involve many different areas and fields of interest and research.

Dudley-Evans and St John (1998, 19) said that "ESP is essentially a materials- and teaching-led movement" closely interlinked with Applied Linguistics and English Language Teaching. When looking deeper into the research trends or approaches in ESP, they refer especially to register analysis, rhetorical and discourse analysis, analysis of study skills, and analysis of learning needs (Ruiz-Garrido, Palmer-Silveira and Fortanet-Gómez 2010, 1-2).

For most of its history, English for Specific Purposes (ESP) has been dominated by English for Academic Purposes (EAP), and by the subspecialty English for Science and Technology (EST) (Swales, 1988); EAP continues to dominate internationally (Johns and Dudley-Evans 1993, 124). EAP and ESP are now commonly referred to as International Scientific English (ISE). The common feature of this discourse community is the skilful use of English to write science. Scientific research, not language, is the focus and this has interesting consequences for the teaching of EST. If English is seen as ISE, it forms part of science, and is therefore also an integral part of 'becoming a scientist' nowadays (Wood 2001, 81-83).

Language or Languages of Medicine?

Medical language is the occupational register of physicians and it is largely opaque outside the medical community. Several authors have commented on one particular feature of medical language. McCullough (1989) and Mintz (1992) see medical lan-

guage as an abstract discourse about disease and organs and emphasize its distancing function, an artifact of its commitment to objectivity. Crookshank (1923), Cassell (1976), Warner (1976) and Fleischman (1999) have commented on the lexicalisation of diseases as static entities rather than dynamic processes (Fleischman 2003, 475).

The English language, with scientific and professional development, is no longer a foreign language for other nations, but it has become a mother tongue, it is *lingua franca*, which used to be Latin once upon a time. English has become the *lingua franca* of medicine and most scientific fields since 95% of medical papers come from English speaking countries (Pilegaard 2000, 7).

Huge Development of Medicine

In the past two centuries epochal discoveries have been made in natural sciences, particularly medicine which takes a special place since it has been as old as mankind. The new branches of fundamental medical science such as molecular biology, genetics and biomedicine have become the foundation of understanding and interpreting medicine. These disciplines have been followed by numerous clinical subdisciplines. It means that the medical science returned to the cellular level and, for the first time, scientists discovered *genetic structure of the human genome*, which made possible cloning of the human being. Furthermore, we are witnessing the appearance of new parasitic and viral diseases (*virus synthesis was made* – polio) caused by *prions* (SARS – severe acute respiratory syndrome, *mad cow* disease, *avian flu*, and the latest deadly form of flu caused by H1N1 virus). Finally, the most prominent has been a huge progress of modern technology and its application in medicine (*electron microscope, computer, scanner, magnetic resonance imaging, ultrasound* and others). The most recent trend is related to *nanotechnology* which implies creating machines of very minute dimensions, the size of a molecule (a nanometre is one thousand millionth of a metre!) In not so near future, it seems that those machines called *nanorobots* will be used in treatment (destroying viruses or cancer cells, recovering damaged cells and tissues) as well as in control of the ageing process.

English for Medical Purposes (EMP) - present

Such huge development of *medical science and practice* requires further improvement of *the language of medicine*. It has become necessary to create *new terms* not only for new illnesses and disorders but a totally new terminology for fundamental medical branches, particularly terms for state-of-the-art technology. It has been shown that

the language of medicine finds it hard to keep pace with medical science and practice. It frequently *describes* rather than *defines* incompletely understood natural phenomena.

Modern medicine has transgressed the boundaries of the Greco-Latin terms and must create a new terminology (Mićić 2009 a, 231-234).

Jammal (1988) comments that science flies and its terminology walks – typically at a pace that lags far behind scientific advances. New disease names emerge, and changes are observed in the meanings of established disease names. Medicine is so highly compartmentalized that, for example, one's background in surgery and emergency medicine offers little help when one is faced with a dermatology translation. This makes research crucial (O'Neill 1998, 76).

The English language of medicine has been understood well and extensively studied. It serves as a model for other nations how to create their languages of medicine. The Greco-Latin basis of terms is but one feature of the language of medicine, which, in the case of English, manifests a special preference for synonym, eponym, acronym and abbreviation use (*myopia*, *shortsightedness*; *Parkinsonism*; *laser*; *AIDS*). There are a number of forms specific for the English language of medicine. There is a very precise and elaborate popular terminology related to illnesses (apart from the technical Greco-Latin term *herpes zoster*, there is a native English word *shingles*). Thus there is a tendency to use a descriptive term taken from everyday language rather than a learned expression (*clotting* rather than *coagulation*). Also, ordinary words with medical meaning are more frequently used (*growth* for *tumour* or *temperature* for *fever*). Such words are termed semi-technical words (Trimble 1985, 129). In clinical medicine there are a number of technical idiosyncratic phrases which in the context of everyday speech and writing sound, to put it mildly, strange (*The patient presented with jaundice*). Last but not least, in the English language of medicine there are noun strings plus necessary adjectives (less often verbs and adverbs) forming a concept with a "single noun" idea (*nominal compounds*) (NCs). The English language of medicine is full of such compounds (Mićić 2011, 535).

Features of scientific texts

According to Parkinson (2000, 371), scientific texts are characterized by the following features:

- Nominalization of verbs and adjectives, e.g. *A **preoccupation** with minor indiscretions from the past often occurs in such patients.*
- Technical phrases (medical jargon), e.g. *The patient **presented with** jaundice.*

- Extended nominal groups/collocations, e.g. *small middle meatal polyps*
- Tentative language (hedging), e.g. *Reduced attachment in the face of polymorph infiltration **might** indirectly reflect aspects of the immune response...*
- Causal and reasoning verbs, e.g. *Addiction **is caused** by heroin.*
- Impersonal language and passivisation, e.g. *The epidermis **is molded** over the papillae of the dermis.*

Grammatical and syntactic features of English for Medical Purposes (EMP)

Among grammatical and syntactic features of EMP, the following may be singled out:

- Reporting verbs, e.g. *The patient **reported** severe side-effects.*
- Non-temporal use of Tenses (Present, Past mostly), e.g. *He **goes** to hospital tomorrow.*
- Passive, e.g. *It **should be noted** that phase-contrast microscopy is not useful with fixed and stained material.*
- Modals, e.g. *It **must** have been Tuesday when she went to the doctor's.*
- Conditional expressions, e.g. ***If** she falls over, she'll hurt herself.*

Semantic (lexical) features of EMP

Greek and Latin are still the basis for medical terminology (Mc Morrow 1998, 14) because they are precise and internationally comprehensible (Berghammer 2006, 40). The most systematic continuing use of medical Greek and Latin is in the official *Nomina Anatomica* (anatomical terms, abbreviated NA), a standardized list of anatomical terms. Greek- and Latin-based terms can be analysed from prefixes, roots and suffixes so that the meaning is readily understood (for instance, "ultramicrotomy": "ultra" = excess, beyond; "micro" = minute, small; "tomy" = cutting (hence, "the technique of cutting into very thin pieces") (Tables 1, 2 and 3).

Table 1. Some English and Serbian medical terms used in their Greco-Latin form

Latin	English	Serbian
laryngitis,-tidis,f.	laryngitis	laringitis
herpes,-etis,m.	herpes	herpes
discus,-i,m.	disc	diskus
paralysis,-is,f.	paralysis	paraliza
sinus,-us,m.	sinus	sinus
anaemia,-ae,f.	anaemia	anemija
nervus,-i,m.	nervus	nerv
asthma,-atis,n.	asthma	astma
polypus,-i,m.	polyp	polip
carcinoma,-atis,n.	carcinoma	karcinom
cancer,-i,m.	cancer	kancer
libido,-dinis,f.	libido	libido
nephritis,-tidis,f.	nephritis	nefritis

Table 2. Some English medical terms with Greco-Latin basis and their Serbian popular equivalents

Latin	English	Serbian
atrium,-ii,n.	atrium	pretkomora
cicatrix,-icis,f.	cicatrix	ožiljak
uterus, -i, m.	uterus	materica

Table 3. Some English and Serbian medical terms with parallel Greco-Latin forms

Latin	English	Serbian
uterus, -i,m.	uterus/womb	materica
manus,-us,f.	manus/ hand	ruka (but: manuelni)
dens,-entis,m.	dens/tooth	zub (but: dentografija)
diarrhea,-ae,f.	diarrhea/lienteria	proliv (but: dijareja)

Source: Mičić, Marković 2011, 840-841

In ESP/ISE, differences are made between terms or specialist vocabulary and semi-technical, subtechnical, context-independent academic words that occur with high frequency across disciplines (Jordan 1997, 152). Words can have special meanings in specific fields, or one or more 'general' English meanings, or have an extended meaning in specific fields (Trimble 1985, 129). Students must be aware of the difference between sub-medical and proper medical terminology because the choice depends on the audience (Wakabayashi 1996, 360). Coxhead and Nation write about four categories: high frequency words; the academic vocabulary (sub-technical vocabulary); technical vocabulary; and low frequency words (Coxhead and Nation 2001, 252). Terms are often cognate with the equivalent term in the students' first language and pose only pronunciation difficulties ("diagnosis" = *dijagnoza*, or "pneumonia" = *pneumonija*). Non-cognate terms, especially subtechnical concepts, need explanation and a different pedagogical approach ("history" = *anamneza*, or "strain" = *naprezanje*). English has a synonym in everyday speech for many medical terms, such as "hemorrhage/bleeding" or "myopia/shortsightedness". The choice of word depends on the audience.

The third lexical feature of ESP/ISE are noun strings plus necessary adjectives (less often verbs and adverbs) forming a concept with a "single noun" idea (compounds or collocations). The English language of medicine is full of such compounds. The fast growth of scientific knowledge in the past half century has generated many new terms, particularly multiterm words, such as "chronic obstructive pulmonary disease" (Berghammer 2006, 42). Attempts to translate compounds into a language that does not compound usually result in long and unwieldy phrases (Trimble 1985, 130-131). Examples: "gonadotropin-releasing hormone" = *hormon koji oslobadja gonadotropin*, "arsenic-fast virus" = *virus rezistentan na arsenik* (Micic 2008, 174). It is via collocations that the realization of the term is achieved (Hauenherm 1998, 150). Collocation is the way words combine in a language to produce natural-sounding speech and writing. It takes a greater degree of competence with the language to combine words correctly in productive use. To a native speaker these combinations are highly predictable; to a learner they are anything but.

Collocations are very important in the language of medicine and were the topic of our studies on contrastive analysis of terms for illnesses and disorders in English and Serbian. All terms for illnesses and disorders have been classified into 23 groups according to the features related to the nature of illness. Those features are adjectival-nominal syntagms – collocations, extended by the addition of verbs. It has been concluded that the basic terms are 'illness' and 'disorder' in English, and 'bolest' and 'poremećaj' in Serbian. However, English has more

terms to offer for 'illness': 'disease', 'condition', 'sickness', 'complaint'. By combining these basic terms with adjectives and verbs, deep insights into the nature of terms have been obtained.

There are two interesting cases worth mentioning: *sickness* and *fever*. In one sense, they both represent symptoms: *nausea* and *high temperature*. However, they can act as proper 'illnesses' in the following examples: *sleeping sickness* and *yellow fever* where they belong to the categories of 'infectious' and 'contagious' illnesses, respectively.

Common collocations with 'illness' or 'disease' are: *have an illness/disease*, *get an illness/disease* (those that you often have) and *suffer from an illness/disease* (in more formal contexts and with more serious diseases). Interestingly enough, with 'disorder', the usual collocation is *have a disorder*, not *suffer from a disorder* which makes it a separate category with restricted use. The verbs 'give' and 'have' are called *light verbs*, which means that the action is described by a nominal unit that follows them (Cattell 1984, 2). Also, the verbs 'strike' and 'afflict' are to be stressed because thanks to them the noun has an agentive function – it does the action (Cruse 1973, 11-23). The example is: *Cholera struck him*. Some verbs define the nature of disease, e.g. *die of AIDS* provides the meaning of 'fatal illness', and *contract flu* provides the feature of 'infectious disease'. There are two types of verbs – those that provide negative meaning (as the abovementioned) and those that denote positive meaning, such as: *relieve the pain*, *staunch bleeding*, *prevent malaria* etc.

As to adjectives, we can differentiate among those that denote 'nature of illness' such as *congenital*, *mental*, *metabolic*, 'severity' like *slight/mild*, *moderate*, *severe/serious*, *fatal*, then 'localization' such as *pulmonary*, *cardiac*, *intestinal*, 'duration' – *acute*, *chronic*, *prolonged*, 'extent' like *partial*, *total*, *endemic*, *epidemic* 'age' – *infantile*, *juvenile*, *senile*, 'cause' – *viral*, *bacterial*. Like verbs, they can determine the true meaning of 'illness', e.g. *endemic tuberculosis*; *tuberculosis is a contagious illness*.

These studies have confirmed that all languages are identical at the level of deep structure, but in terms of surface levels they exhibit differences (Mičić 2004, 441-444).

The fourth lexical feature of EMP is hyperonymy and hyponymy. Hyponymic relation, as a semantic category, implies the relationship between specific, narrow and general, wide lexical units. It means that meanings of specific lexical units must be included in the meanings of general lexical units. Thus certain hierarchical relationship is made between a wider term – *hyperonym* and the included term – *hyponym*. The set of lexical units, hyponyms, of the same superior term are called *co-hyponyms* and their interrelation is linear. One of the basic criteria for determining a hypo-

nymic relationship is invariance. So, hyperonymy is created when the same component in a hyperonym is unspecified (illness), and in a hyponym it is specified (pulmonary illness). A determinant has a function of a localizer, it signifies part of the body in which illnesses are manifested. In terminological fund, hyponymy is, as a rule, multilinear, and alternative hyperonymic and hyponymic relations are made (Štasni 2002, 252-255).

Specific characteristics of illness dictate the order of lexemes in hierarchy. The first-line hyponym is general in nature, functioning as a hyperonym (illness); the second-line hyponym is general, too (pulmonary illness); the third-line hyponym is more specific – a concrete example of illness (asthma); the fourth-line hyponyms are complex lexemes (cardiac asthma, bronchial asthma) where *cardiac* and *bronchial* are determiners of localisation; the fifth-line hyponyms are chronic asthma, allergic asthma, psychogenic asthma, where *chronic*, *allergic*, *psychogenic* represent causative agents (Figure 1). From a lexicographic point of view, hyperonymy is extremely important, because a hyponym is most commonly defined via a hyperonym: pulmonary illness – asthma; asthma is a pulmonary illness (Štasni 2002, 257-259; Mičić 2006, 271).

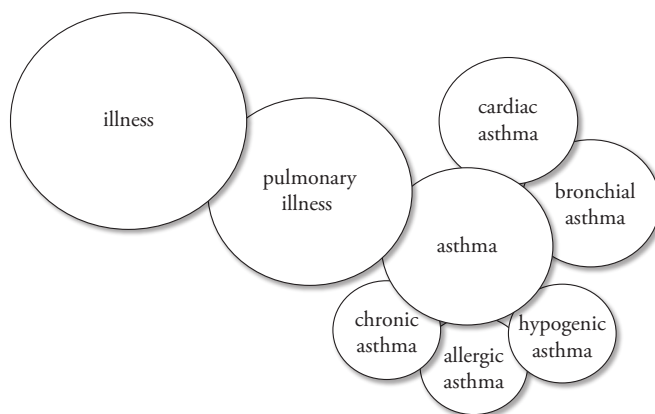


Figure 1. Hyperonymic and hyponymic relations of the term illness

Metaphors are also one of the lexical features of the language of medicine. There may be identified (1) the kinds of metaphors used to structure medical concepts and (2) the functions of metaphorical expressions in medical texts (catachretic, didactic and theory-constitutive). Of particular importance are didactic metaphors as they refer to doctor-patient communication. The dominant conceptual metaphor in American culture is that disease is an outrage and "Medicine is war". *Fighting disease* is emphasized rather than caring for sick patients. This metaphor entails that action

is a virtue, doctors are fighters, technologies are weapons and disease is the enemy. The language of medicine assigns physicians an active role and patients, by default, a passive role. Another major conceptual metaphor of biomedicine is "The body is a machine". According to this view, the individual is seen as the sum of the body's parts, e.g. "The heart is a pump", "The digestive system is plumbing", "The brain is a computer", "A cell is a machine", and "Cells contain machinery". In virtually every language and every culture *body parts serve as metaphors*. They come to stand for perceived physical or mental states, such as *eat your heart out!*, *he hasn't a leg to stand on*, *it makes my blood boil*, *she gets under my skin*, *a gut reaction*, *get off my back!*, or *in your face* – all based on associative meanings that attach to the respective body parts in English. Some of these associations extend across languages and across cultures (Fleischman 2003, 484-488; Mičić 2009 a, 125-127).

It is usually epidemics that are thought of as plagues. And these mass incidences of illness are understood as inflicted, not just endured (Sontag 1990, 133). The disease is often experienced as a form of demonic possession – tumours are 'malignant' or 'benign', like forces – and many terrified cancer patients are disposed to seek out faith healers, to be exorcised (Sontag 1990, 69). AIDS and cancer are two diseases that provide very illustrative metaphors. More than cancer, but rather like syphilis, AIDS seems to foster ominous fantasies about a disease that is a maker of both individual and social vulnerabilities (Sontag 1990, 153).

Discourse features of EMP

Medical writing style implies a certain degree of impersonality, avoidance of prolixity, exact description, fixed methods of reporting, hypothesising (Mc Morrow 1998, 25), and conveying the impression of objectivity (Nash 1990). For example, "He was discharged home in good condition" is a common phrase, and it would be inappropriate to transform it into "They discharged him home in good condition". Knowledge of the phraseology of the genre (i.e. a command of the semi-prestructured phrases that occur in medical papers) will help students to understand and create meaning (Marco 2000, 77). Medical jargon is full of sequences of words and idioms which may sound unusual in everyday speech. For example, the phrase "the patient complains of ..." has nothing to do with the patient "complaining", but means that the patient "presented with". Case reports follow strict conventions that determine the phrases used to describe a particular medical situation. For example, "The postoperative course was uneventful": the term "uneventful" cannot be literally translated. To change or ignore the standard phrases is to fail to adhere to the conventions of the target text, making it sound less professional and perhaps even

compromising its scientific credibility (Berghammer 2006, 43). Still worse, inaccuracies in medical translations may have serious clinical consequences (O'Neill 1998, 70-71). Some authors have written about the struggle with English by non-native speakers. Benfield calls this weak appreciation of the conventions of discourse in English the 'English Language Burden' (ELB) (Benfield 2007, 363).

Languages for medical purposes (LMPs) today

In the last 30 years of the twentieth century, English has been rapidly exported from and imported into many languages through the dominant role of the U.S. in computer science and technology as well as medical technology. So, in addition to the Greco-Latin heritage there is knowing the current mix of standard English from all scientific and technological sources, including new eponyms, acronyms, abbreviations and trade names. Biochemistry, cell and molecular biology, immunology and bioengineering are the chief sources for the flood of new terms entering the medical dictionaries (McMorrow 1998, 24-25). According to a July 24, 1995, article in US News and World Report, about 25,000 new English words are coined every year, of which 4% make it into dictionaries. The catching up with English goes on continually in native languages, by either finding adequate native words, borrowing from English, or adapting English words to native languages (sometimes poorly) (Segura 1998, 40).

As far as the Serbian language is concerned, there has still been no established and widely accepted language of medicine in medical publications. In earlier times, there used to be a tendency to use popular terms in medical articles. Today, there are no justifications for this, since those are publications of professionals for professionals (Slavković 2004, 58). Still, when writing for a scientific journal, in the same context, it may happen that one Serbian author uses one term (e.g. *rilising hormon*), another may use *oslobadjajući hormon* and the third one may use *liberin* (Mičić 2004, 31). Another feature is that Serbian medical terms have been either forgotten or rejected in favour of Greco-Latin terms predominantly used by Serbian doctors. Finally, with the increasing influence of English as an international language of medicine, there have appeared numerous anglicized terms. Thus the Serbian medical language is a disorganized mixture of Greco-Latin and anglicized terms (Mičić 2009a, 86). This also applies to other languages of limited diffusion. For example, Croatian medical terminology is mostly based on Latin, but recently English has had a strong influence on Croatian medical language at all language levels (Gjuran-Coha, in press).

Medical communication

The Oxford English Dictionary tells us that the word ‘communicate’ comes from the Latin ‘to impart, to share’. ‘Communication’ is imparting, conveying or exchanging ideas, knowledge, etc. (Figure 2).

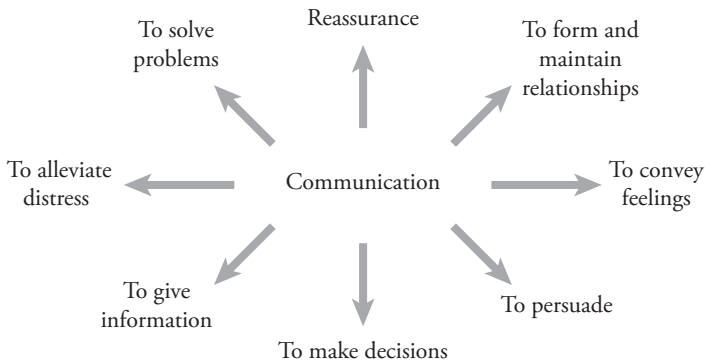


Figure 2. Some purposes of communicating (Lloyd and Bor 2006, 2-3)

The ability to communicate and interact effectively is a critical skill for all allied health professionals because of the many barriers and challenges unique to the profession (Hosley and Molle 2006, 2). Clear, concise, accurate communication in any form is important in all areas of health care. This includes exchanges between health care professionals, such as chart notes and memos etc. in which there is responsibility for making sure that information was received and understood as it was intended (Hosley and Molle 2006, 10-11).

There are five specific groups of professionals with whom health professionals must be able to communicate:

- coworkers/peers
- physicians
- managers/supervisors
- regulatory agency personnnel
- referral professionals.

Each group is unique and comes with its own set of challenges (Hosley and Molle 2006, 182-184).

Technical/Medical translation

Successful, i.e. adequate, translation implies not only the knowledge of the Source Language (SL) and the Target Language (TL) but contrastive competence, using primarily semantic as well as formal correspondents but also words and structures other than the corresponding ones to render the same or similar meaning. In the former case, it is strictly literal translation in which the translator adopts a principled approach to the source text. There is no need to change the original mold. In the latter case(s), he takes a pragmatic approach. It is the question of free translations, adaptations, paraphrases, where the TL text is independent (Hlebec 2009, 176-183).

The Language of Science and Technology (LST) is a register characterized by special(ist) terms and terminological combinations. The terms are associated with the explicitly and strictly defined concept about science and technology. Thus their referential function is expressed most, it predominates, other functions (e.g. expressive or aesthetic) being much less important. This allows a principled approach to translation implying more or strictly literal translation – transcription and transliteration of the terms.

Language proficiency testing of doctors

In Europe, there may be imposed tougher language proficiency requirements for doctors who intend to work abroad, because of their inadequate language skills in a country's official language. There is a Professional Qualifications Directive but it is interpreted differently across Europe. For example, in Italy, there is a language assessment test post-registration. In Austria, doctors are subjected to scrutiny of a panel, in Cyprus the regulator conducts interviews while in Portugal the doctors discuss a video recording with a regulatory panel. In some countries like Ireland, Malta, Belgium, it is left to employers to gauge language proficiency or a test within the first six months of employment is required (Denmark). In Poland and Serbia, it is enough for doctors to provide written declaration that their level of Polish or Serbian is up to speed while in Luxembourg there are no language requirements unless doubts are raised about a doctor's linguistic skills. In the Czech Republic, written and oral tests are taken. The UK General Medical Council does not conduct language assessment because of prohibition in its regulatory framework. The council, together with 25 other European medical regulators comprise a group called Informal Network of Competent Authorities for Doctors and they issued a joint statement in 2010 asking for mandatory language testing in the interest of patient safety.

Namely, there were cases in the UK of alleged malpractice with disastrous results by foreign doctor in the media (Villanueva 2011, 321-322). In 2009, there was launched the sTANDEM project in Hungary, intended to create universal medical language test financed by the EU and to be implemented in the EU.

LMPs – future

Today, it is clear that ESP represents a necessity and, in terms of its practical value, has a greater relevance than English for General Purposes. The English language of medicine has been well developed and standardized and should be taught at all world faculties. As far as Serbia and the neighbouring countries are concerned, English for Medical Purposes courses have been much varied. There is a need to develop uniform standardized curricula.

Since the English language of medicine is highly developed, it should serve as a model for all nations as to how to build their languages of medicine. This is especially important since it has turned out that Greco-Latin terminology is no longer sufficient as a means of expressing modern medicine so all nations should build native medical terminologies and the language of medicine in their own languages. To achieve this goal, it is necessary to standardize national languages as a prerequisite for the existence of the language of medicine.

For future purposes, it is necessary to organise programmes for LSP (including medical purposes) teacher education at philological faculties. They could be in the form of master and academic specialization programmes. Enormous development of medical science and practice, both basic and clinical, has led to numerous specialized and subspecialized branches that should be followed by an appropriate language. The study of numerous specialized and subspecialized languages of medicine has been required by social circumstances. To further illustrate, molecular biology, genetics, quantum medicine as well as clinical branches, such as internal medicine, cardiology, surgery, endocrinology, dermatology and many others should be accompanied by specialized languages of medicine. Furthermore, the development of technology and pharmaceutical industry imposes the need for an adequate language to express it. All the above requires writing new pragmatic dictionaries.

In this manner, native terminology of each language will be preserved and new terms, non-existent in the language in question, will be linguistically analyzed and thus enrich the given language. This will help to avoid the flood of anglicisms and other foreign terms which have been incorrectly used and do not mean anything in either the source or the target language. It is to be especially stressed that once these

inappropriate, incomplete terms are used, they become nativized and almost impossible to correct. In order to avoid this, there should be the cooperation between language teachers and medical professionals. It is our opinion that only linguists who are trained in LSP are the ones who should teach LSP and language of medicine. Collaboration with experts in the field i.e. physicians, health professionals and particularly medical students who are taught the language of medicine will enable successful language teaching and provide adequate results expected by society.

Conclusion

Huge scientific and technological development has made languages for specific purposes a necessity today. English for Specific Purposes has been well developed and standardized. It has become *lingua franca* and, due to its importance, is no longer considered a foreign, but an additional, language.

The English language of medicine is especially relevant since enormous development of medical science, practice and technology occurs primarily in the United States of America and the United Kingdom. New terms and expressions are created in English and other languages are flooded by them (so-called anglicisms).

The English language of medicine has its standards and is being taught in almost all world countries. Other languages of medicine are strongly influenced by it and they are still in the process of developing their languages of medicine.

It is necessary to standardize languages of medicine other than English and to make a linguistic analysis of new, mostly English, terms so that they can enrich the target language.

Each medical specialization and subspecialization should be followed by respective sophisticated languages of medicine. Languages of medical science should also be further developed.

LSP teacher education programmes need to be introduced at philological faculties. This applies to medicine, too, since there has been an increasing number of new terms and expressions as a result of ongoing huge development of medical science and practice. In this regard, collaboration between medical language experts, on one hand, and medical researchers, doctors and other health professionals, on the other, is indispensable.

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Višnja Pavičić Takač*, Evelina Miščin**

Exploring the collocational competence of non-native users of medical English

ABSTRACT

Previous research on collocations has emphasised the significance of collocations as co-occurrence and recurrence. Applied linguists exploring the acquisition of collocations made a significant contribution to the understanding of the notion of collocation. However, only few studies have dealt with the difference between collocations in general English and collocations in scientific English.

The present study deals with verb collocations in medical English. Collocations are observed in the interaction of syntagmatic and paradigmatic relations. The emphasis is on upward collocations (collocate and node). The study aims at analysing the level of collocational competence of non-native users of medical English in order to identify the aspects of verb collocations that require a special approach in teaching medical language.

Key words: collocations, collocational competence, medical English, errors, productive knowledge

Introduction

This paper deals with research into the collocational competence of non-native users of medical English. The term collocation was first used by Firth in the 1950s, but only few linguists have researched this phenomenon in scientific English. Previous research was mostly focused on collocations in general English (cf. Channel 1981,

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Elkhatib 1984, Ghadessy 1989, Aghbar 1990, Aghbar & Tang 1991, Fayez-Hussein 1990, Bahns & Eldaw 1993, Zhang 1993, Arnaud & Savignon 1994, Gitsaki 1999). In scientific English collocations were addressed by Gledhill (2000) and in Croatia Špiranec (2005 – technical English) and Štefić (2010 – dental medical English).

Definition of collocations

The interest in collocations started in the last two decades under different names e.g. phrasemes, idioms, fixed expressions, formulaic language, co-selection of words, phrasal lexemes (Omazić 2003: 113). The term, introduced by J. R. Firth in the 1950s, derives from Latin (*com* together + *locare* locate) and refers to a multi-word construct which occurs in a procedure of locating, i.e. co-occurrence or combination of words on the syntagmatic level. Thus, Firth (1957) tried to explain collocations by a syntagmatic and paradigmatic relation between lexical units which can be shown by two axes – horizontal and vertical. The paradigmatic axis is vertical and includes words which belong to the same class and can be inter-changed. The horizontal axis is syntagmatic and refers to the ability of words to be connected with others. For instance, in a sentence *Mary drank beer*, *beer* is in a paradigmatic relation to *wine*, *juice*, *Coke* and in a syntagmatic relation with *drank* and *Mary*. Previous research on collocations has emphasised the significance of collocations as co-occurrence and recurrence (statistical/textual view, cf. Halliday 1985, Phillips 1985, Hoey 1991). The semantic/syntactic tradition in lexicology defines collocations as the abstract relation between words regardless of their frequency (Benson 1989, Howarth 1996, Cruse 1986). Finally, the discourse/rhetorical model examines collocations with regard to their effect and considers syntactic and semantic limitations of the fixed expression less important than their rhetorical functions (Moon 1987). One of the important contributions was made by Morton Benson, Evelyn Benson and Robert Ilson who published the BBI dictionary of collocations in 1986 and divided collocations into two basic groups: grammatical and lexical. Grammatical collocations contain prepositions, infinitives or sentences, while typical lexical collocations consist of nouns, adjectives, verbs and prepositions. This paper deals with lexical collocations, namely verb and noun combinations.

Collocations and non-native speakers

Collocations usually represent a huge problem to non-native speakers due to interference with their mother tongue. That is why Hill (1999) suggested the creation of a term 'collocational competence' and insisted that acquisition of lexis includes not

just learning the total meaning of a word, but also its collocational span. Collocational competence was also addressed by some other researchers (Nattinger and DeCarrico, Lewis, Woolard as cited in Nattinger & DeCarrico 1992) who claim that it contributes to a better understanding of difficulties encountered by language learners. The importance of acquiring collocations in language teaching has been particularly emphasised in the last two decades. Research studies have also shown that collocational errors are the most frequent mistakes made by non-native speakers (James 1998). Figure 1 illustrates the hierarchy of collocational errors as perceived by McCretton and Rider (in James 1998).

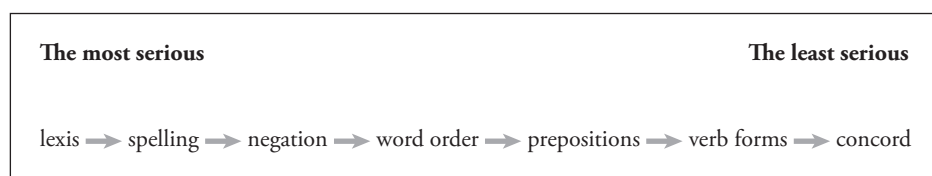


Figure 1. Hierarchy of mistakes according to McCretton and Rider (James 1998)

From the above figure it can be seen that the lexical mistakes are the most serious ones. A speaker can be understood if he/she makes a grammatical mistake. However, if he/she makes a lexical mistake there could be misunderstanding and the same problem occurs with collocational mistakes. The implications for teaching and learning foreign languages are self-evident: learners' awareness of the importance of collocations as well as the problems they might encounter must be raised from the early stages of language learning. Applied linguists exploring the acquisition of collocations (Sinclair 1991, Francis 1993, Moon 1998, Hunston 2002) made a significant contribution to the understanding of the notion of collocation. However, only few studies have dealt with the difference between collocations in general English and collocations in scientific English. In this context, the research on the acquisition of collocations carried out by Gitsaki (1996) must be mentioned. She discussed and reviewed the literature about collocations and also made a contribution to the study of the development of collocational ability.

The present study

The focus of this research are lexical collocations, i.e. word combinations consisting of a verb and a noun and so-called upward collocations (Sinclair 1991: 115/116) where *a* is a collocate and *b* the node. The study aims at exploring the level of collocational competence of non-native users of medical English and investigating whether their collocational competence corresponds to their level of language profi-

ciency. The purpose of the study is to clarify the aspects of verb collocations which require a special approach in teaching medical English.

Research questions

In order to achieve the aims of the study, the following research questions were formulated:

What are the most frequent mistakes in the use of verb collocations?

What is the level of collocational competence of non-native users of medical English?

Are there any differences in the level of collocational competence between beginner users of medical English (1st year students) and more proficient users of medical English (5th year students and doctors)?

Participants

The total number of non-native users of medical English who participated in the research was 127. Out of this number, 50 students were 1st year medical students¹, 51 5th year medical students and 26 doctors. The research was carried out in 2009/2010 for the 1st year students and in 2011/2012 for the 5th year students and doctors.

Instrument

The instrument used for the research was a collocational competence test. It consisted of four groups of exercises: multiple choice, gap-fill, translation from English into Croatian and translation from Croatian into English. Each task had fifteen questions which makes a total of 60 questions (Appendix 1). The first group of sentences tested the receptive level of collocation competence and included multiple choice questions. Two groups of questions tested the productive level and included gap-fill and translation from Croatian into English. The last group of questions probed both the productive and receptive knowledge since the subjects had to recognise the meaning of the collocation in English and offer its translation.

¹ The original number of the 1st year students who participated in the research was 297, but for the purpose of this research, 50 were chosen from that group. Mišćin (2012).

Procedure

Students were tested during regular classes at the School of Medicine in Zagreb and Osijek. They were given instructions in Croatian and had 60 minutes to complete the test. Doctors were tested at home and had unlimited time for answers. All tests were done anonymously.

The maximum number of points for each group of questions was 15, which makes a total of 60 points. Each correct answer was given one point. In translations only the target collocations were evaluated. It was not important whether students translated other sentence parts. Also, grammatical competence and spelling were not evaluated. A collocation was marked as correct if it was attested in the corpus (cf. Miščin 2012).

Results and discussion

In order to answer the first research questions, the four tasks were analysed in terms of correct and incorrect answers. The results of the tests can be seen in tables 1., 2., 3. and 4.

The first column in the table shows a target collocation, the second its Croatian translation, while the remaining three the most frequent errors selected by first year students, fifth year students and doctors. As table 1 shows, all doctors selected the correct answer to the first collocation ('respond to treatment'). Also, none of doctors used the collocation 'had a new kidney', while the fifth year students used that collocations more frequently than the first year students (6% compared to 3%). None of the fifth year students used 'impaired knee injury' while the doctors used that collocation less frequently than the first year students (11.5% of doctors compared to 38% of first year students). The fifth year students also did not use the collocation 'exchange the patient's hip', while the doctors and the first year students selected it almost equally frequently (7.7%, i.e. 6.4%). All three groups selected equally frequently the wrong collocation 'grow weight', though it was used the least by the first year students (1.9% compared to 3.9% of the fifth year students and 4% of the doctors). The correct collocation 'contract malaria' was chosen more frequently by first year students than fifth year students, but it was most frequently selected by the doctors. Most of the first year students thought that the correct collocation was 'obtain malaria', whereas the fifth year students thought it was 'receive malaria'. The collocations 'establish the diagnosis' and 'tolerate pain' did not cause problems to any group of participants. Instead of the collocation 'perform physical examination', the first year students (21.5%) used the collocation 'do physical examination', and

Table 1. Results of the multiple choice task

Target collocation	Croatian translation	Most frequent errors		
		1 st year students	5 th year students	Doctors
Respond to treatment	Reagirati na liječenje	Recover to treatment	Answer/recover to treatment	_____
Receive a kidney	Dobiti bubreg	Obtain a kidney	Obtain a kidney	Obtain a kidney
Aggravate the injury	Pogoršati ozljedu	Deteriorate/impair the injury	Deteriorate the injury	Deteriorate/impair the injury
Replace the hip	Zamijeniti kuk	Exchange the hip	Change the hip	Exchange the hip
Gain weight	Dobiti na težini	Get weight	Get weight	Get weight
Contract malaria	Dobiti malariju	Obtain malaria	Receive malaria	Obtain malaria
Establish the diagnosis	Utvrditi dijagnozu	Do the diagnosis	Perform/do the diagnosis	Perform the diagnosis
Tolerate pain	Podnositi bol	Suffer pain	Suffer pain	Experience pain
Perform physical examination	Obaviti/izvršiti fizikalni pregled	Do physical examination	Do physical examination	Make physical examination
Maintain physical fitness	Održavati tjelesnu spremnost	Sustain physical fitness	Sustain physical fitness	Sustain physical fitness
Predict a prognosis	Pretpostaviti prognozu	Determine prognosis	Foresee prognosis	Determine prognosis
Feel the pulse	Opipati puls	Test the pulse	Test the pulse	Test the pulse
Provide relief	Pružiti olakšanje	Give relief	Give relief	Give/offer relief
Pose the risk	Predstavljati rizik	Represent risk	Show risk	Represent risk
Loosen the secretion	Razrijediti izlučevinu	Weaken the secretion	Lessen secretion	Lessen secretion

the same mistake was made by 39.2% of the fifth year students and 7.7% of doctors. The majority of all three groups of participants were familiar with the collocation 'maintain physical fitness' with 84% of doctors, 73% of first and 74% of fifth year students choosing the correct answer. The collocation 'predict a prognosis' caused most problems for the doctors: 50% of them opted for the erroneous collocation 'determine prognosis', compared to 43% of first year students and 9.8% of fifth year students. Interestingly, all three groups made mistakes with the collocation 'feel the pulse' and chose 'test the pulse' more frequently (49% of the first year students, 27.5% of fifth year students, and 40% of doctors). The collocation 'provide relief' did not create any problems for any group. The collocation 'pose risk' proved generally difficult, but it is interesting to note that first year students and doctors more often decided on the wrong collocation 'represent risk', whereas fifth year students selected the collocation 'show risk'. Another collocation that was found difficult by all participants was 'loosen secretion'. Instead of the correct collocation, first year students chose 'weaken secretion' and fifth year students and doctors chose 'lessen secretion' more often.

Table 2 summarises the results of the gap-filling task where participants were required to supply the missing verb. Instead of 'refrain from alcohol consumption' the most frequent collocation used by the first year students and doctors was 'avoid alcohol consumption' (51.8%, i.e. 57.7%), whereas fifth year students used 'stop alcohol consumption' (19.6%). In place of the target collocation 'change the bandage' first year students most frequently used 'replace the bandage' (19.2%), while the fifth year students (31.5%) and the doctors (30.8%) used the correct collocation. First (8.4%) and fifth year students (9.8%) erroneously used 'appear bed sore' instead of the target collocation 'develop bed sore'. All three groups correctly used the collocation 'take blood samples'. The first year students and the doctors most frequently supplied the correct collocation 'relieve pain', but the most frequent collocation suggested by fifth year students was 'lessen pain' (13.7%). Instead of the collocation 'admit to hospital' the first year students most frequently used 'send to hospital' (7.4%), the fifth year students 'receive to hospital' (25.5%) and the doctors most frequently used the correct collocation. Similarly, doctors most frequently used the correct collocation 'treat the infection', while the first and the fifth year students most frequently used the incorrect collocation 'cure the infection' (19.1%, i.e. 23.5%). The collocation 'suffer injury' did not cause problems for any group. The situation was similar with the collocation 'seek medical attention', with the exception of the first year students who used the collocation 'ask for medical attention' to the same extent. The doctors were the only group who mostly used the collocation 'undergo surgery', while the first year students used 'have surgery' (50%) and

Table 2. Results of the gap-fill task

Target collocation	Croatian translation	Most frequent errors		
		1 st year students	5 th year students	Doctors
Refrain from/ avoid alcohol consumption	izbjegavati uzimanje alkohola	Stop alcohol consumption	Avoid alcohol consumption	Avoid alcohol consumption
Change the bandage	Promijeniti zavoj	Replace the bandage	Put the bandage	Place the bandage
Develop a bedsore	Dobiti dekubitus	Appear a bedsore	Appear a bedsore	Appear a bedsore
Take blood samples	Uzeti krvni uzorak	Send blood samples	Use blood samples	Send blood samples
Relieve pain	Ublažiti bol	Stop pain	Lessen pain	Reduce pain
Treat the infection	Liječiti infekciju	Stop the infection	Cure the infection	Cure the infection
Sustain/ experience the injury	Pretrpjeti ozljedu	Suffer the injury	Get the injury	Have the injury
Seek medical attention	Tražiti liječničku pomoć	Ask for/find medical attention	Need medical attention	Find medical attention
Undergo/have surgery	Podvrgnuti se kirurškom zahvatu	Have surgery	Have/get surgery	Undergo surgery
Administer/ give penicillin	Dati penicilin	Prescribe penicillin	Prescribe penicillin	
Check/take temperature	Provjeriti temperaturu	Measure temperature	Measure temperature	
Carry out/ perform check-ups	Izvršiti pregled	Do the check up	Do the check up	
Catch/pick up the flu bug	Pokupiti virus gripe	Get the flu bug	Get the flu bug	Contract the flu bug

the fifth year students 'have surgery' or 'get surgery' (15.7%). As for the collocation 'administer/give penicillin' the first and the fifth year students mostly used 'give penicillin' (54.1%). Instead of the collocation 'check/take temperature', the majority of the first and fifth year students used 'measure temperature' (57.7%, i.e. 21.6%). Most doctors used the collocation 'perform checkups' ('carry out checkups' was also possible), while the first and the fifth year students used 'do check-ups' (39.7%, i.e. 23.5%). Also, the doctors used the correct collocation 'catch the flu bug' (30.7%) ('pick up the flu bug' was also possible), while most first and fifth year students used 'get the flu bug' (38.4%, i.e. 31.4%).

Table 3. shows the results of the third task in the test of medical English collocations which required translating collocations into participants' first language from English. Generally, translations presented considerable difficulty to participants. The collocations which were translated equally by all three groups are: 'regain consciousness' (translated as '*došla k svijesti*'), 'go into shock' (translated as '*pasti u šok*'), 'produce pain' (translated as '*izazvati bol*'), 'strain back' (translated as '*istegnuo leđa*'), 'undergo dialysis' ('*podvrgnuti su dijalizi*'), 'develop kidney stone' (translated as '*razviti bubrežni kamenac*'), 'detect a lump' (translated as '*otkrila je kvržicu*'), 'abort migraine headaches' (translated as '*prekinuti migrenske bolove*').

The collocations which were translated differently by students and doctors were: 'induce writing' (translated by 35.4% of first year students and 54.9% of fifth year students as '*potaknuti povraćanje*' and the doctors as '*izazvati povraćanje*'), 'extend survival' (translated by students as '*produžiti život*' and by the doctors as '*preživljenje*'), 'impair memory' (translated by 23.5% of first year students and 21.6% of fifth year students as '*oštetiti memoriju*' and by 46.2% doctors as '*oštetiti pamćenje*'), 'relieve nausea' (translated by 18.9% of first year students and 23.5% of fifth year students as '*olakšavati mučninu*'), 'speed the onset' (translated by 24.6% first year students and 19.6% of fifth year students as '*ubrzati*' and by 23.1% of doctors as '*ubrzati početak*').

Some collocations were translated in the same way by the fifth year students and doctors and completely differently by the first year students. They are as follows: 'suppress inflammation' (translated by the first year students as '*sprečavaju upalu*' (20.9%) and by the fifth year students (33.3%) and the doctors (30.8%) as '*smanjuje upalu*').

The collocation which was the most difficult one and which was translated differently by each group was 'eradicate infections' (translated by 22% of first year students as '*protiv infekcija*', 17.8% of fifth year students as '*za eradicaciju infekcije*' and 38.5% of doctors as '*iskorijenjivanju infekcije*').

Table 3. Translation from English into Croatian

Collocation	Croatian translation	Most frequent translations into croatian		
		1 st year students	5 th year students	Doctors
regain consciousness	Doći k svijesti/ povratiti svijest	osvijestiti	osvijestiti	Probuditi iz kome
Induce vomiting	Izazvati/inducirati povraćanje	Potaknuti povraćanje	Potaknuti povraćanje	Isprovocirati povraćanje
Go into shock	Pasti u šok	Doživjeti šok	Otići u šok	Upasti u šok
Extend survival	Produžiti život	Produžiti preživljavanje	Produžiti preživljenje	Produžiti preživljenje
Produce pain	Izazvati/ prouzrokovati bol	Proizvesti bol	Potaknuti bol	Producirati bol
Strain the back	Istegnuti leđa	Ozlijediti leđa	Ukočiti leđa	Nategnuti leđa
Eradicate infections	Iskorijeniti/istrijebiti infekcije	Protiv infekcija	Ukloniti infekcije	Eradicirati infekcije
Suppress inflammation	Suzbijati/potiskivati upalu	Sprječavati upalu	Smanjiti upalu	Smanjiti upalu
Undergo dialysis	Podvrgnuti se dijalizi/ići na dijalizu	Podliježu dijalizu	Biti na dijalizi	Dijalizirati se
Develop kidney stone	Dobiti bubrežne kamence/oboljeti od bubrežnih kamenaca	Razviti bubrežne kamence	Razviti bubrežni kamenac	Razviti bubrežni kamenac
Detect a lump	Otkriti/detektirati kvržicu	Osjetiti kvržicu	Napipati kvržicu	Napipati kvržicu
Impair memory	Pogoršati pamćenje/ štetno utjecati na pamćenje	Oštetiti memoriju	Oštetiti memoriju	Oštetiti pamćenje
Abort migraine headaches	Zaustaviti migrenske glavobolje	Prekinuti migrenske bolove	Prekinuti migrenske bolove	Prekinuti migrenske bolove
Relieve nausea	Ublažiti/olakšati mučninu	Oslobađati od mučnine	Smanjiti mučninu	Oslobađati od mučnine
Speed the onset	Ubrzati pojavu/ početak/javljanje	ubrzati	ubrzati	Ubrzati razvoj

Table 4. Translation from Croatian into English

Target collocation	Croatian translation	Most frequent errors		
		1 st year students	5 th year students	Doctors
Tolerate a drug	Podnositi lijek	Respond well to medicine	Respond well to medication	Have a good drug tolerance
Catch a cold	Prehladiti se	Get cold	Get cold	Get cold
Detect a cancer	Otkriti rak	Discover a cancer	Discover a cancer	Screen cancer
Cleanse/ clean the wound	Očistiti ranu	Disinfect the wound	————	Irrigate/debride the wound
Transmit a disease	Prenositi bolest	Transfer a disease	Transfer a disease	Transfer a disease
Get/develop symptoms	Dobiti simptome	Have symptoms	Have symptoms	Have symptoms
Identify antibodies	Utvrditi antitijela	Determine antibodies	Determine antibodies	Determine antibodies
Ease/relieve anxiety	Ublažiti tjeskobu	Suppress anxiety	Mitigate anxiety	Lessen anxiety
Enhance/ increase the appetite	Povećati apetit	Enlarge the appetite	Boost the appetite	Improve/gain/ induce
Precipitate the attack	Pospješiti napad	Induce the attack	Trigger the attack	Induce the attack
Suppress a cough	Suzbiti kašalj	Stop cough	Sustain cough	Abort cough
Produce/ cause discomfort	Izazvati nelagodu	Cause discomfort/ uncomfortability	Cause discomfort/ uncomfortability	Induce discomfort
Trigger disease	Potaknuti bolesti	Cause diseases	Provoke disease	Induce disease
Admit to hospital	Primiti u bolnicu	Take in the hospital	Administer to hospital	Accept to hospital
Produce / cause improvement	Izazvati poboljšanje	Make improvement	Lead to improvement	Make improvement

The translation into English proved to be the most difficult task. The easiest collocation was 'suppress a cough' which caused no problems with any group. All the groups used the collocation 'get a cold' instead of 'catch a cold' which was familiar to 37.2% of the first year students, 27.5% of the fifth year students and 53.8% of doctors. The first and the fifth year students translated '*očistiti ranu*' using the collocation 'clean the wound' instead of the target collocation 'cleanse the wound'. The doctors also used two collocations that no other group used and these were 'irrigate the wound' and 'debride the wound'. No group used the collocation 'identify antibodies' and they most frequently used the collocation 'determine antibodies'. Also, the collocation 'detect a cancer' was familiar to all the groups, but the most frequent error made by first and fifth year students was 'discover cancer' and by doctors 'screen cancer'. The first year students most frequently translated '*prenositi bolest*' as 'transfer illness' or 'spread disease' and the expected collocation 'transmit disease' was in the third place. The situation is opposite with the fifth year students and the doctors – the most frequent collocation is 'transmit disease': even 88.5% of the doctors used this collocation. The first and the fifth year students translated the collocation '*dobiti simptome*' as 'get symptoms' while the one expected second, 'develop systems', was in the fifth place. The doctors used both collocations in the same percentage. As for the collocation 'ease/relieve anxiety', only the first year students used the former collocation, but the majority used the latter one. Other groups used only 'relieve anxiety'. The most frequent mistake made by the first year students was 'reduce anxiety' and by the fifth year students and doctors 'mitigate anxiety'. The doctors also frequently used 'lessen anxiety'. Only a small percentage of the doctors used the collocation 'enhance the appetite' while the others, including both student groups, used 'increase the appetite'. Most doctors (23.1%) used the collocation 'produce/cause discomfort', while the first and the fifth year students had problems with the noun and instead of it they used 'unease, illness, stress, problems' and the fifth year students used 'uncomfort' and 'uncomfortability'. A small number of subjects were familiar with the collocation 'trigger disease'. The first year students and the doctors most frequently used 'induce disease/illness' and the fifth year students 'provoke disease' also. The fifth year students and the doctors most frequently used the correct collocation 'admit to hospital', while the first year students most frequently used 'take in hospital' or 'receive in hospital'. None of the groups used the collocation 'produce improvement' which very frequently occurred in the corpus. The first year students and the doctors most frequently used 'cause improvement' or 'make improvement' and the fifth year students 'lead to improvement'.

The most difficult collocations were 'tolerate a drug' and 'precipitate the attack'. The former was familiar to only 10.1% of the first year students and 19.6% of the fifth

year students, but 73.1% of doctors had no problems with it. The first year students most frequently used the wrong collocation 'takes well to medicine' (29%), the fifth year students 'responds well to medication' (13.7%) and the doctors used the collocation variant 'have a good drug tolerance' (7.7%). Instead of 'precipitate the attack' the first year students and the doctors most frequently used 'induce the attack' and the fifth year students 'trigger the attack'. The doctors also used 'generate, potentiate, accentuate the attack'.

As the above analysis of the erroneous use of collocations has shown, non-native users' collocational competence is rather limited. There are two types of strategies that participants in this study recurrently opted for to compensate for that lack of knowledge: the first is the literal translation of the collocations from their first language, and the second is approximation, i.e. the use of a near-synonym (e.g. the literal translation of '*povećati*' as 'enlarge' in the collocation '*povećati apetit*' and a near synonym 'accept' instead of 'admit' in the collocation 'admit to hospital').

The second and third research questions addressed a) participants' level of collocational competence, and b) potential differences in the level of collocational competence between beginner users of medical English (1st year students) and more proficient users of medical English (5th year students and doctors). Table 5 shows the results of the descriptive statistics for overall collocational competence. Since the average score is 27.22 (SD=8.52) for the whole sample, it may be concluded that overall collocational competence is quite low. Compared to students, doctors seem to have a higher level of knowledge (M=34.42, SD=6.98).

Table 5.: Overall collocational competence (descriptive statistics)

	n	min	max	mode	mean	SD
1st year Ss	50	10	40	26	25.94	7.44
5th year Ss	51	9	43	19	24.80	8.35
Doctors	26	21	47	41	34.42	6.98
total	127	9	47	26	27.22	8.52

In the next step, receptive, receptive-productive and productive collocational knowledge was analysed separately. The results in table 6. refer to the receptive knowledge, those in table 7. to the receptive-productive, and those in table 8. to the productive knowledge.

Table 6: Receptive knowledge of collocations (descriptives)

	n	min	max	Mode	mean	SD
1st year Ss	50	5	13	10	9.48	2.05
5th year Ss	51	6	14	10	10.84	1.87
Doctors	26	4	15	8	10.30	2.81
total	127	4	15	10	10.20	2.23

Table 7.: Receptive-productive knowledge (descriptives)

	n	min	max	Mode	mean	SD
1 st year Ss	50	2	12	7	6.7	2.28
5 th year Ss	51	0	13	9	7.37	3.21
Doctors	26	5	13	9	9.76	1.98
total	127	0	13	7	7.6	2.86

Table 8.: Productive knowledge of collocations (descriptives)

	n	min	max	mode	mean	SD
1 st year Ss	50	0.5	9.5	5.5	4.88	2.07
5 th year Ss	51	0	9	0	3.29	2.63
Doctors	26	4	11.5	5.5	7.17	2.03
total	127	0	11.5	5.5	4.70	2.70

It is no surprise that participants demonstrated better receptive knowledge and that the lowest level of knowledge was achieved at the productive level. At the level of receptive knowledge, there does not seem to be a great difference between the participant groups. However, at the receptive-productive and productive knowledge, doctors showed higher levels of knowledge than both groups of students. This can be attributed to the fact that doctors' exposure to medical English is much longer and probably more intensive than that of medical students and that reading and writing professional papers in English is part of their professional life.

In order to explore whether the observed differences between the levels of knowledge as well as between the three groups of participants are statistically significant, a one-way analysis of variance with post-hoc comparisons using the Tukey HSD test was carried out. As table 9. shows, there were statistically significant differences at the $p < .01$ level in

test scores for all participants groups. Post-hoc comparisons (cf. table 10.) indicated that the means score for doctors was significantly higher than those of both groups of students at all knowledge levels, except for the receptive. The mean scores for fifth year students were significantly different from 1st year students at the receptive and productive levels of knowledge. Fifth year students outperformed first year students on the receptive task, but the results were the opposite on the productive task.

Table 9.: Differences between levels of knowledge (ANOVA)

		Sum of squares	df	Mean square	F	Sig.
Overall	Between groups	1728.621	2	864.311	14.430	.000
	Within groups	7427.205	124	59.897		
	Total	9155.827	126			
Receptive	Between groups	47.315	2	23.658	5.069	.008
	Within groups	578.764	124	4.667		
	Between groups	626.079	126			
Rec/Prod	Between groups	165.483	2	82.741	11.779	.000
	Within groups	871.037	124	7.024		
	Between groups	1036.520	126			
Productive	Between groups	261.420	2	130.710	24.508	.000
	Within groups	661.339	124	5.333		
	Between groups	922.760	126			

*Table 10.: Post-hoc comparison for levels of knowledge**

Variable			Mean.diff.	St. error	Sig.
Overall competence	Doctor	1 st year	8.48308	1.87127	.000
		5 th year	9.61916	1.86499	.000
Receptive	5 th year	1 st year	1.36314	.42996	.005
Receptive/ Productive	doctor	1 st year	3.06923	.64083	.000
		5 th year	2.39668	.63868	.001
Productive	doctor	1 st year	2.29308	.55839	.000
		5 th year	3.87896	.55651	.000
	5 th year	1 st year	-1.58588	.45961	.002

* only significant differences are shown

The mean difference is significant at the 0.05 level

Conclusion

This paper dealt with verb collocations in medical English. Their significance is manifested in the fact that they represent the connection between words on one side and the text on the other. The collocational competence of 127 subjects belonging to three different groups of non-native users of medical English was tested by means of four types of tasks targeting both their receptive and productive knowledge. The results confirmed that collocations are indeed a problematic area for non-native users of medical English. The analysis of erroneous use of collocations showed two major trends: the first is a heavy reliance on the first language and the second is the use of approximation. However, the comparison of collocational competence across the three groups of participants indicates that continuous exposure to and active use of medical English increases the knowledge of collocations.

Finally, the results of the study bear important implications for teaching medical English collocations. Taking into consideration the importance of collocations on the one hand and the fact that they are one of the most difficult areas for non-native users on the other, it seems safe to conclude that the approach to teaching collocations needs to be more systematic as well as anchored in research. The present study, for example, is a contribution towards that end. It pinpointed potential problematic areas, and if it is known which types of collocations are likely to cause problems at a certain level, teachers can introduce such collocations gradually in order to facilitate the development of students' collocational competence. In addition, medical students, doctors, nurses, translators as well as other non-native users of medical English would undoubtedly benefit from a good specialist dictionary or a glossary of medical collocations where such problematic collocations would be highlighted.

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Appendix 1 - Test

Sex: _____ Town you come from: _____

Years of learning English: _____

I Circle the correct answer:

1. She is _____ well to treatment.
a) responding b) answering c) recovering
2. He _____ a new kidney from his brother.
a) had b) received c) obtained
3. Playing football only _____ his knee injury.
a) impaired b) deteriorated c) aggravated
4. The doctors _____ the patient's hip.
a) changed b) replaced c) exchanged
5. Some people want and need to _____ weight.
a) get b) gain c) grow
6. My uncle _____ malaria when he was working in Africa.
a) contracted b) obtained c) received
7. The doctor _____ the diagnosis of heart failure.
a) performed b) did c) established
8. The ability to _____ pain may change with age.
a) suffer b) tolerate c) experience
9. Each doctor will _____ physical examination in different orders.
a) do b) make c) perform
10. The authors recommend a wide range of foods to _____ physical fitness.
a) maintain b) hold c) sustain

11. Similar procedures may be used to _____ a person's prognosis after a heart attack.
a) predict b) foresee c) determine
12. The doctor _____ the pulse in arteries in the neck, beneath the arms...
a) feels c) touches c) tests
13. Antacids _____ relief more quickly than H2 blockers.
a) give b) offer c) provide
14. Respirators can _____ some risk for people with heart or lung ailments.
a) represent b) show b) pose
15. Steam inhalation can effectively _____ secretion.
a) weaken b) loosen c) lessen

II Put the verbs in the gaps:

1. When you are pregnant you should _____ alcohol consumption.
2. The bandage should be _____ regularly.
3. A bedsore can _____ in hours and may take months to heal.
4. Each time you give blood a doctor _____ blood samples for safety tests in the labs.
5. The electrocardiogram (ECG) is an important and sometimes central tool used to _____ the diagnosis of myocardial ischemia.
6. NSAIDs are often used to _____ headache pain.
7. The patient was _____ to hospital due to terrible injury.
8. Antibiotics are used to _____ infection.
9. He has _____ severe head injury.
10. If you experience a severe allergic reaction e.g. with breathing difficulty _____ medical attention urgently.
11. Tony Snow will _____ surgery on Monday to remove a small growth.

12. The doctor will ____ penicillin or other antibiotics by pill or by injection.
13. The task of a nurse is also to _____ a patient's temperature.
14. Health visitors visit families to _____ check-ups on young children.
15. I think I've _____ the flu bug that's going round.

III Translate into Croatian. Pay special attention to underlined words:

1. The victim regained consciousness after 2 months of coma.

2. You should induce vomiting.

3. A person can quickly go into shock and die because of internal bleeding.

4. Chemotherapy can sometimes extend survival to 8 months.

5. Deep breathing may produce pain.

6. He strained his back lifting the table.

7. Treatment is directed against eradicating infections.

8. Glucocorticoids suppress inflammation in the human placenta.

9. Over two hundred thousand Americans undergo kidney dialysis.

10. There is a higher percentage for men to develop kidney stone than women.

11. She detected a lump in her left breast.

12. Smoking in midlife may impair memory.

13. Some medications can abort migraine headaches.

14. Vomiting relieves nausea right away.

15. Alcohol can speed the onset of hypothermia.

IV Translate into English. Pay special attention to underlined words:

1. Dobro podnosi lijek.

2. Noge su mi bile mokre, pa sam se prehladila.

3. Mamografija se koristi za otkrivanje raka dojke.

4. Ranu treba dobro očistiti.

5. Komarci mogu prenositi bolesti.

6. Neki ljudi dobiju simptome kao djeca.

7. Krvni testovi utvrđuju određena antitijela.

8. Obično se daje sedativ za ublažavanje tjeskobe.

9. Lijekovi mogu povećati apetit.

10. Emocionalni stress često pospješuje napad.

11. Antitusici suzbijaju kašalj.

12. Dim može izazvati nelagodu respiratornog sustava.

13. Stres može potaknuti različite bolesti.

14. Primljen je u bolnicu zbog ozbiljne ozljede.

15. Ovi lijekovi mogu dovesti do poboljšanja za nekoliko mjeseci.

Višnja Pavičić Takač, Evelina Miščin

Analiza kolokacijske kompetencije neizvornih korisnika engleskog jezika medicine

SAŽETAK

Nalazi dosadašnjih istraživanja kolokacija naglašavaju važnost kolokacija kao supojavljivanja i rekurencije. Značajan doprinos eksplikaciji pojma kolokacija dale su spoznaje primijenjenih lingvisti koji su istraživali usvajanje kolokacija kod učenika stranih jezika. Međutim, rijetka su istraživanja kolokacija u prirodnim znanostima.

Naše se istraživanje bavi leksemima engleskoga jezika medicinske struke i njihovim glagolskim kolokatima. Kolokacije se promatraju u uzajamnom djelovanju sintagmatskih i paradigmatičkih odnosa koje kolokacijski članovi ostvaruju s drugim dijelovima leksika. Težište je na uzlaznim kolokacijama (kolokat i čvor). Cilj je istraživanja analizirati razinu kolokacijske kompetencije neizvornih korisnika engleskoga jezika medicine kako bi se rasvijetlili aspekti glagolskih kolokacija koji zahtijevaju poseban pristup pri poučavanju jezika medicine.

Ključne riječi: kolokacije, kolokacijska kompetencija, medicinski engleski, greške, produktivno znanje

Françoise Salager-Meyer*, María Ángeles Alcaraz Ariza**

Titles are "serious stuff"¹: a historical study of academic titles²

ABSTRACT

In this paper we carried out a diachronic analysis (1840-2009) of a corpus of 180 medical case report **titles** drawn from the *British Medical Journal*. We analyzed a series of quantitative variables (number of authors and their institutional affiliation, title length, and punctuation/grammatical data) and qualitative variables (authors' collaboration and types of titles). The results of our research show various shifts over the period studied that could be attributed to the following factors: 1) the progressive professionalization of medicine; 2) the need of disciplinary teams to conduct an ever-increasing complex research; and 3) the increased specialization and the growing complexity of medical science. The only variable that has remained constant over the years is the nominal nature of case report titles. It could then be stated that case report titles would distinguish themselves from research article titles, which are being characterized by a certain tendency towards verbalization.

Key words: English, medicine, case reports, titles, diachronic analysis

¹ Swales (1990: 224)

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1. INTRODUCTION

1.1. *On the importance of titles in scientific research*

In our paper published in 1991 (Salager-Meyer 1991), we argued that, because of the tremendous growth in the number of journals, hence of papers, published and because of the interdisciplinary nature of research, scientists would have to rely more and more on abstracts as a short, concise, complete and accurate source of information. Scientific paper abstracts are indeed a time-saving device that helps readers to decide whether the whole article is worth reading or not. Today, because of the hyperproduction of professional literature which is estimated to double every 12 years (Stix 1994), most scientists are content with reading the title only of the papers they deem interesting for their research purposes.

As a matter of fact, there is evidence that doctors sometimes make clinical decisions from the titles of journal articles (Haynes et al. 1990; Goodman 2000). This is why titles should convey effectively the topic of the report, and, if possible, the design of the reported investigation, while attracting the attention of and informing the primary target audience, editors and reviewers. Titles should therefore be clear, accurate and precise (Swales and Feak 1994; Day 1998; Hartley 2008). The more precise and accurate indeed the title is, the easier it will be for bibliographers to compile data for indexing, abstracting and other documentation purposes. However, it is not long ago, as Goodman et al. (2001) report, that monographs about writing scientific papers (Zeiger 2000) have begun to stress the importance and pivotal role of titles.

One of the reasons why, despite their succinctness, titles are "serious stuff" (Swales 1990: 224) is because, as Yitzhaki (1994) rightfully posits, the function of titles is to draw readers' attention to a paper and to indicate its content from a short glimpse, thus allowing readers to decide whether the paper deserves further reading. According to Swales and Feak (1994), a title should indicate the topic and scope of the study, and be self-explanatory to readers in a given discipline. We can thus acknowledge, along with many other researchers (e.g., Bird and Knight 1975; Diener 1984; Nahl-Jakobovits and Jakobovits 1987; Alley 1996; Yitzhaki 1994; Whissel 1999; Anthony 2001; Gross et al. 2002; Haggan 2004), that titles –these small but key front rhetorical devices– play a capital role in scientific research in the sense that they are the gateway that represents the reader's first encounter with a document, whether it is a research article, a thesis, a conference paper, a review paper, etc.

Other scholars have stressed that titles should be as informative as possible in order to facilitate the process of storing, searching and retrieving the information (Black

1962; Mitchell 1968; Tocatlian 1970; Feinberg 1973; Manten and Greenhalgh 1977; Hodges 1983; Diodato and Pearson 1985).

The aforesaid clearly underscores that the field called "titleology" (Biacchi 2003, cited in Soler 2011: 124) has grown quite substantially since Swales claimed in 1990 that titles were an issue in academic genres that had not been fully addressed. As Soler (2011) remarks, since its creation, the field has diversified itself through a heterogeneous range of topics addressed by applied linguists, information scientists and psychologists.

Because the vast and rich literature on the subject has examined the issue from a range of various perspectives, we will now present the results and conclusions of the most significant papers that have been published on the topic. We will classify that research into four groups, although, as we will see, in some cases there is an overlapping of approaches: 1) the research conducted from a discipline-specific perspective; 2) the research that tackled the issue of academic titles from a cross-disciplinary angle; 3) the research that dealt with the cross-generic aspect of the topic; and finally, 4) the research that considered academic titles from a cross-cultural angle.

1.2. Review of literature on academic titles

1.2.1. Discipline-specific studies on academic titles

Some research on academic titles (by far, the minority) has been conducted in mono-disciplinary contexts. Gesuato (2009), the most recent discipline-specific study, examined the differences and similarities of titles among four genres in the field of *Linguistics*, viz books, research articles (RAs), dissertations, and proceedings papers. She specifically examined the following variables: length (calculated as the number of running words), lexical density, syntactic encoding, structural organization, subphrasal syntax, content analysis and information sequencing. The findings of her study showed that the similarities among the titles of these four genres outweigh the differences. The author attributes this phenomenon to the commonality of the genre, to the linguistic encoding and the communicative goals of titles, and to the fact that the genres she studied belonged to the same discipline.

In the field of *Psychology*, Whissell (1999) found that, on average, titles of RAs were 12- word long, while Wang and Bai (2007) observed that in *Medical* RAs, the average length of the titles was 10.9 words, with 99% of them being realized as nominal groups and 75% characterized by the presence of single heads. Ninety-eight percent did not have any subtitles, and 68% were accompanied by post-modifying prepositional phrases.

Forray and Woodilla (2005) explored the ways in which temporality is invoked and represented in *Management* RA titles. The authors observed that temporality manifested itself in punctuation and word choice, among others. Goodman et al. (2001), for their part, examined the content of the titles of 420 peer-reviewed *medical* RAs and queried editors of the journals on editorial policies and practices in relation to titles. The authors noted that editors occasionally modified titles to increase their clarity and informativity, and the few journals having a policy on titles addressed the issue of title length only.

1.2.2. Cross-disciplinary research

The vast majority of the research that has been conducted on academic titles has adopted a cross-disciplinary approach. To our knowledge, the first study on titles of academic research that adopted such a perspective is that of Buxton and Meadows (1977) on RAs from the *natural* and the *social sciences*. The results of their study indicate that titles in the natural sciences have a higher information content than those in the social sciences, and that the overall length of the titles in both the natural and the social sciences increased over time, which corresponds to an informativity increase. Another cross-disciplinary research is that of Yitzhaki (1994) who examined RA titles in the *hard sciences, social sciences and humanities*, measuring title informativity and its possible correlation with the number of authors. In the scientific fields, Yitzhaki found that there was a moderate positive correlation between the number of authors and the number of content words in the titles. By contrast, in the social sciences, the correlation was found to be rather low and relevant to a few titles only. As for the humanities, no correlation was found between the number of authors and the number of content words. Yitzhaki argues that the correlation he detected in the scientific disciplines can be accounted for by the high frequency of multiple-authored papers in science journals.

Other cross-disciplinary studies on academic titles were those conducted by Fortanet et al. (1997, 1998) and Haggan (2004) who reported differences as well as similarities in the syntax of titles across disciplines. Fortanet et al. (1997, 1998) analyzed 200 titles of RAs in *Computer Science, Applied Linguistics, Business and Economics, and Chemistry*, and reported that the Chemistry titles were the longest, while those in Linguistics were the shortest. They also found that the most common syntactic structure of titles was made up of a 'premodifier + a head + a postmodifier'. Head combinations were found to be more frequent in Linguistics and Business and Economics titles, while combinations of pre- and post-modifiers were more frequent in Chemistry and Computer science. Linguistics and Business and Economics titles displayed a majority of *-ing* forms, while their Chemistry and Computer Science

counterparts exhibited a balanced distribution between *-ing* and *-ed* forms. Finally, the Linguistics, Economics and Business titles favored the use of definite articles, while the Chemistry and Computer Science titles showed an even distribution of definite and indefinite articles. Haggan (2004), for his part, compared over 700 RA titles in *Literature, Linguistics and Education* and found similar syntactic and structural choices in the three disciplines.

Other studies examined the structure and wording of titles. Anthony (2001) studied the length, word frequency, prepositions, and punctuation marks in the titles of various *Computer Science* sub-disciplines. The average title length was 9 words, with most titles ranging from 6 to 12 words. On average, 2-unit titles, with a colon separating them, made up about 13% of the data. The two most frequent semantic relationships holding between the two parts of a title were 'name: description' and 'topic: scope', but with considerable variation across RAs. There were statistically significant differences among the RA titles in relation to the frequency of specific words showing the sub-disciplinary content specificity. For his part, Afful (2004) explored the variations of dissertation titles in *English Studies* and *Engineering* in a corpus of 798 titles. The variables studied included text length, text structure and the use of prepositions. He recorded both differences and similarities between the titles of the two disciplines.

The studies of Dillon (1982), Lewinson and Hartley (2005), and Hartley (2007) focused on the use of colons in titles. These punctuation marks are used to mark two information units indicating either the general framework of the article and the specific topic of the document, or the topic and the method. Dillon (1982) explored the titles of 1,150 RAs in *Education, Psychology* and *Literary Criticism* published between 1880 and 1980, and noticed a steady increase in the use of colons across these three disciplines. In their 1997 study, Fortanet et al. also reported that the colon, semicolon, and full stop were the most frequent punctuation marks in *Business* and *Economics* titles, and the least common in *Computer Science* titles. For their part, Lewinson and Hartley (2005) also reported that titles with colons were longer and more informative than those without colons. In a similar vein, Hartley (2007) found that disciplinary differences exist in the use of colons, with a greater use in the Arts than in the Sciences.

1.2.3. Cross-generic studies on academic titles

In her study on 480 journal review papers and 90 RA titles in the *Biological and Social Sciences*, Soler (2007) identified four main structural constructions, viz., nominal groups, compounds, full sentences and question titles. The most common construction across disciplines and genres was the nominal group. The full-sentence

construction was found to be a generic and disciplinary peculiarity of Biology RAs, whereas the question construction was infrequently used, most commonly though in review papers. Soler moreover analyzed the length of the titles across disciplines, and found that the average number of words in the titles she analyzed was 15.48 words in Medicine, 14.98 in the Natural Sciences, 10.89 in the Social Sciences, and 7.98 in Linguistics.

1.2.4. *Cross-cultural research on academic titles*

Nord (1995) and Busch-Lauer (2000) investigated the influence of language/culture (here taken as language variations) in academic titles from different perspectives. Nord (1995) examined the functional value of 12,000 titles across various academic publications in *English, French, German* and *Spanish*. She recorded the same frequency hierarchy of what she called 'the optional functions' of titles and a lack of culture-specific variations in genres like poems and scholarly articles. Busch-Lauer (2000), for her part, evaluated a corpus of 150 *German* and *English* titles in *Linguistics* and *Medicine* collected from RAs and conference papers, and 25 English titles written by German researchers. She observed that Linguistics titles were shorter than Medicine titles, and that German titles were shorter than English ones. Moreover, Medicine titles written in English preferred a mono-structure format, while those written in German favored a title-subtitle structure. In general, the Medicine titles were long, precise, and informative, while those from the Linguistics field were short, vague, abstract, catchy and reflected individual stylistic preferences.

To sum up, the above review of the literature related to titles of academic writings shows that such titles vary and, at the same time, display similarities across a number of factors and in several dimensions, such as structure, syntactic encoding, length, wording, use of punctuation marks, informativity, functions, and information sequencing. Our review of the literature also shows that there are several gaps in the research on academic titles. We could, for example, mention that, by far, the academic genre that has been "over-investigated" is, as in many other linguistic and rhetorical studies, the RA. By contrast, case report (CR) titles, including, of course, medical CRs, have not been researched at all. The same remark applies as well to diachronic studies on academic titles. Of all the studies we mentioned above, only one (Dillon (1982) dealt with academic titles from a diachronic standpoint.

It is thus our intention here to fill that conceptual gap by presenting the results of a diachronic analysis of a corpus of CR titles from 1840 to the present (see 'Corpus' below) and compare them with the results obtained by previous research on titles in other scientific genres, such as the research paper and the review article. More precisely, the present study aims at answering questions related to the *evolution* of the

type of CR titles, their length, their grammatical and syntactic complexity, and their authorship practices. By examining authorship data, this study seeks to develop, *inter alia*, a sense of the collaborative practices of medical CR writers.

2. CORPUS and METHODS

We analyzed a corpus of 180 randomly selected CR titles divided into three blocks comprising 60 CR titles each: Block A from 1840 to 1850; Block B from 1920 to 1930, and Block C that covers the year 2009. Titles from Blocks A and B were drawn from one single journal, the *British Medical Journal* (*BMJ*). Since the *BMJ* stopped publishing case reports in the late 1990's, Block C titles were drawn from the *BMJ Case Reports*, which was launched by the end of 2008 and whose 2008 and 2009 issues are freely accessible on line. This explains why we chose the year 2009 as our Block C.

Neither the *BMJ* nor the *BMJ Case Reports* has a stated policy regarding the writing of CR titles. The only policy the *BMJ* has addresses the length of titles and the (non) use of abbreviations.

Twenty-nine variables were recorded in each of the 180 titles. These were divided into two categories: 1) numerical or quantitative variables (those that can be counted), and 2) categorical or qualitative variables that cannot be counted but answer a yes/no question.

The following variables belong to the *numerical/quantitative* group:

1. Number of authors and their institutional affiliation (from the United Kingdom, from Europe but outside the United Kingdom and from outside Europe);
2. Title length. All the words included in the title were counted. The concept of "word" was defined as the unit occurring between spaces. Each word making up abbreviations was counted as one word: for example, "SAIM [(segmental absence of intestinal musculature" (C)³] was counted as four different words. Compound words and hyphenated words were counted according to the number of their semantic components. For example, "gall-bladder" (B) was counted as two words;
3. Number of titles that start with the expression "(A) case of";
4. Punctuation data. The number of commas, colons, semi-colons and full stops;

³ The letter at the end of each example refers to the Block from which the example was drawn.

5. Grammatical data. The frequency of present and past participles, of compound nouns [e.g. "blood serum" (B)] and compound adjectives [e.g. "high-tension current" (B)], of prepositions, coordinating and subordinating conjunctions and relative pronouns.

To the *categorical/qualitative group*, belong:

1. The absence of author's affiliation;
2. The different types of authors' collaboration (local, national or international);
3. The different types of titles:
 - Verbal vs. nominal. A verbal title –also called "informative", "declarative" (Smith 2000: 915) or "assertive sentence title" (Rosner 1990: 108)– contains an active verb with a full sentence that usually states the findings or the conclusion of the research being reported (e.g. "Fibrates help lower LDL"). By contrast, a nominal title, also called "indicative", does not contain any conjugated verb (e.g. "Help of Fibrates in LDL lowering");
 - General subject or "topic" titles, such as "Papilliferous Carcinoma of the Thyroid Gland" (B);
 - Attention-bidding titles, such as "Wired bladder in a cordless era" (C);
 - Question titles, e.g. "Seizure or syncope? A channelopathy with cardiac and cerebral manifestation" (C);
 - Research procedure titles, i.e. those that contain a statement of purpose, method and/or outcome, such as "Case of recovery from taking a large quantity of tincture of opium" (A), which mentions both the method (*taking a large quantity of tincture of opium*) and the outcome (*recovery*).

The above-mentioned variables were recorded in each CR title according to the interpretative skills of the authors of this paper. Ambiguous and doubtful cases were measured against the interpretation provided by an English-speaking medical doctor.

3. RESULTS and DISCUSSION

3.1. Title types: Indicative/Nominal Group titles

As we said in the previous section, all the titles we analyzed consist of more or less expanded *nominal* phrases, also called "indicative titles", which give a straightforward presentation of the object of the study. Here are three examples, one from each Block:

1. Chloroform in catalepsy (A)
2. Tumours of the frontal lobe of the brain (B)
3. Remodelling of coronary arteries (C)

This result clearly corroborates those of previous research on scholarly paper titles that also found a marked preponderance of nominal/indicative titles over verbal/informative/full sentence titles. It is when referring to the *evolution* of scientific titles that our results do contrast with those of previous research. Indeed most research on the topic has underlined a shift over time towards sentence (informative) titles. Almost twenty years ago, Berkenkotter and Huckin (1995), for instance, already reported that titles of *research articles* had become more informative over time. The findings of their research indeed showed that in the 1970's, full sentence titles were very rare, and that in the mid-1990s, they constituted more than 20% of all journal articles and were especially common in biology.²

Since we did not find a single case of verbal/informative title in our CR corpus, it would seem that the use of full sentences in scientific title writing is a *generic* question. Indeed, the research we mentioned above deals with *research* and *review articles*, whereas ours exclusively focused on CRs. We can thus assert that CR titles—at least those published in the *British Medical Journal*—have always been, and still are, written as nominal phrases.

3.2. Title length

The length variable was clearly associated with Block C, which means that the information load and semantic richness of CR titles have increased over time. In this respect, our findings corroborate the results of previous studies. Lewinson and Hartley (2005), for example, reported a 1.25-fold increase in *research paper* titles between 1970-1974 and 2005-2009, and Goodman (2011) found an approximate doubling in the number of words in *research article* titles since the 1970s.

The *coordinating conjunction* variable was found to be intimately related to title length and to be clearly identified with Block C. Indeed, the most numerous the coordinating conjunctions in a title, the longer the title. The two most frequent coordinating conjunctions found in Block C were "and" and "or".

The *colon* variable was also found to characterize Block C, which means that its use has also increased over time. This too has a direct bearing on title length. It has been shown indeed that titles with colons (also called "compound titles", Hartley 2007) are longer on average and contain more information than titles without them.

In Blocks A and B, colons were mainly used to introduce the findings of a surgical procedure (ex. 4 below) or the surgical procedure itself (example 5):

4. Case of lithotomy: the calculus weighing seven ounces (A)
5. Strangulated umbilical hernia: Resection of gangrenous ileum at the age of 69 (B)

Characteristic of these two Blocks as well, but more frequent in Block A than in Block B, was the use of two colons in the same title, where the first colon introduces the consequence of the event described in the first part of the title (example 6) or a surgical procedure (example 7), and the second precedes the treatment outcome, either death or recovery.

6. Poisoning by Fowler's solution: Abortion: Mortal fainting (A)
7. Fibroids complicating pregnancy: Hysterectomy: Recovery (B)

By contrast, in Block C, colons are mostly used to underline the rarity of the CR (examples 8 and 9 below):

8. Atypical uterine leiomyoma: a rare variant of a common problem (C)
9. Papulonecrotic tuberculids: a rare cutaneous manifestation of tuberculosis in pregnancy (C)

All in all, our findings lead us to put forward the hypothesis that the longer titles from Block C are explained by the fact that today's titles require more detailed information about the type of disease and its consequences, the uniqueness of the CR, its educational value and its originality. In short, today more bottom-line information is being loaded into the most highly fore-grounded part of any article, i.e. the title.

3.3. Syntactic complexity

Block A titles were generally understandable to the layman. The great majority of Block A titles started with the expression "Case of", as the following example illustrates:

10. Case of traumatic tetanus (A)
11. Case of valvular disease of the heart (A)

Such titles were usually very short and syntactically and semantically rather simple. But CR titles became more and more complex, both semantically and syntactically.

The increasing syntactic complexity and semantic richness of CR titles are not only related to increasing length (see above), but also to the increasing number of compound nouns and adjectives in Block C as a way to condense information (Salager-Meyer 1984). What in Block A or B would have been expressed as "Case of short-

sightedness cured by operation" (A) would in Block C be rendered as "Operation-cured shortsightedness". Here-below are three examples of titles with several compound nouns and adjectives:

12. Eruptive xanthomas with *Koebner phenomenon*, *type 1 diabetes mellitus*, *hypertriglyceridaemia* and *hypertension* in a *41-year-old man* (C)
13. Treatment of chronic bleeding of the small intestine in *Rendu-Osler-Weber disease* with *argon plasma coagulation* under *double-balloon enteroscopy* (C)
14. *Thyroid storm* induced by trauma due to *spear-fishing gun trident impaction* in the neck (C)

The higher frequency of compound nouns and adjectives in Block C is directly related to the low frequency of prepositions recorded in that Block. Prepositions, especially *of*, *by*, *in*, and *with*, were indeed found to be a distinctive feature of Block A titles, as in the following examples:

15. Case *of* acute laryngitis, *with* remarks on Dr. Wardele's cases *of* spasm *of* glottidis (A)
16. Case *of* emphysema occurring *in* child-birth (A)
17. Case *of* varicose aneurism, cured *by* ligature *of* the brachial artery (A)

What is interesting to observe, too, is the fact that not only are compound nouns and adjectives more numerous in Block C than they are in Blocks A and B, but they are also longer, as examples 12, 13 and 14 above and examples 18 and 19 below illustrate:

18. Diagnostic difficulty of pulmonary embolus in a bariatric patient and *complication of therapeutic dose low-molecular weight heparin* to the surgical anastomosis (C)
19. *Secondary bronchiolitis obliterans organising pneumonia* in a patient with *carbamazepine-induced hypogammaglobulinaemia* (C)

3.4. Commas and past participles (Block A)

The numerical variables 'commas' and 'past participle' and the categorical variables 'mention of methods/treatment' and 'mention of outcome' were all clearly associated with Block A. This is explained by the fact that in the mid-19th century, all past participles expressed either a therapeutic procedure (example 20 below) and/or a surgical outcome (example 21 below) and were preceded by a comma.

20. Case of congenital obliteration of the os uteri, *cured* by operation (A)
21. Case of compound fracture of the femur, the limb *saved* by sawing off the end of the bone (A)

These two examples show that at that time much emphasis was put on the treatment administered and/or the surgical procedure performed and their final outcome (see use of colons for introducing results/outcomes in Block A titles, section 3.2 above).

3.5. *Title type diversity (Block C)*

General subject titles, also called "topic titles", such as:

22. Pneumonic haemorrhagic effusion into pleura (B)
23. The therapeutic value of oxygen in pulmonary lesions (B)

were clearly characteristic of Block B. These titles rather look like editorial titles or titles of oral communications.

Conversely, *question titles* were found to be more frequent in Block C than in the remaining two Blocks. Here are two examples of question titles:

24. Giant cutaneous melanomas: evidence for primary tumour induced dormancy in metastatic sites? (C)
25. Mesodiverticular band simulating acute appendicitis? (C)

Attention-bidding titles were found to be also clearly more frequent in Block C than in the remaining two Blocks. Apart from the example given in Section 2 above, here is an additional one:

26. "Metallic taste": search for the needle in a haystack (exemplary diagnostic measures and successful minimal invasive endoscopic treatment of a needle-like copper-containing foreign body in the gastric wall) (C)

We can then see that both question and attention-bidding titles, although not very frequent, are more characteristic of today's CR titles than they were in the mid-19th and mid-20th century.

3.6. *Authorship and collaboration practices*

The institutional affiliation of 9 out of 60 (15%) of CR authors in the mid-19th century was not identified probably because it was "obvious" that they worked at a British institution, the *British Medical Journal* being a British journal. This practice had totally disappeared by the mid-20th century where all authors' institutional affiliation was mentioned in the CR bylines.

Our findings also disclosed that the total number of authors recorded in Block C was much greater than that recorded in either Block A or B, i.e. it has been increasing over time. Not only has the overall number of authors increased over time, but

so have collaboration practices. There was indeed no collaboration whatsoever in Blocks A and B. Indeed, the *absence* of the three variables that refer to some kind of collaboration –whether local, national or international– were found to be associated with Blocks A and B. By contrast, their presence was closely related to Block C titles, thus underlining the fact that collaboration is an increasingly important factor in today's CR writing.

It is finally interesting to observe that the local collaboration variable characterizes Block C more than the national and international variables do. This clearly corroborates the results of very recent research findings that show that physical location seems to influence to an appreciable extent those with whom one will work.

4. CONCLUSIONS

The following factors could account for the various shifts observed: 1) the progressive professionalization of medicine; 2) the need of multidisciplinary teams to conduct an ever-increasing complex research; and 3) the increased specialization and the growing complexity of medical science.

The only variable that has remained constant over the years is the nominal nature of case report titles. In that sense, CRs would distinguish themselves from *research article* titles.

Despite its appeal, our research is not without its shortcomings. To identify the general trend in CR title formulation, a larger corpus that would cover a wider range of titles from writers from different linguistic backgrounds would be needed. Nationality and mother tongue probably influences title realization. This could be an avenue of research in its own right. Our choice of medical journals also makes us less confident to make broad generalizations on title formation in the discipline and genre analyzed here.

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Danka Sinadinović*

The importance of strategies in learning and acquiring medical English vocabulary

ABSTRACT

Being somewhat different from General English vocabulary, Medical English vocabulary for Academic Purposes is usually considered to be more difficult to learn.

As language learning strategies have been rather popular in the field of L2 acquisition for quite some time, this paper deals with the possibility of using them to facilitate learning Medical English lexis. The paper first briefly deals with the specific nature of ME vocabulary and then it moves on to strategies, their types and recent results in this field. Finally, a questionnaire, which is aimed at checking students' attitudes to Medical English in general, their awareness of strategies and to what degree they use strategies, is analyzed and discussed. This research has also inspired certain ideas for promoting strategies and making them more practical for students to use.

Key words: vocabulary, Medical English, learning strategies, students, research.

1. Introduction

Being an ever-developing linguistic issue, language learning strategies have been attracting linguists' attention for quite some time and have inspired many a fruitful research since the last decade of the 20th century. There are many linguists who have contributed to the popularisation of learning strategies in the field of L2 acquisition, Oxford (1990), O'Malley and Chamot (1990) being only the most conspicuous ones. Although numerous studies have been conducted to prove that language

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learning strategies could enhance learning and acquiring certain aspects of languages, little has been done to link language learning strategies to ESP.

As most conspicuous differences between ESP and General English are related to vocabulary, this paper deals with the importance of using strategies in the field of Medical English vocabulary and the possibility of using them to facilitate learning this type of lexis. Being somewhat different from General English vocabulary, Medical English vocabulary for Academic Purposes is usually considered to be more difficult to learn and use in practice and as a result students tend to have poor results in academic tests.

For this reason, the paper first briefly deals with the specific nature of ESP in general and Medical English vocabulary in particular, stating their differences in comparison to General English lexis. The types of strategies and different taxonomies are discussed, as well as the recent results and achievements in this field. Results and conclusions of these studies may differ, but they still have one thing in common – they are all done in order to check the importance of using strategies when learning a language. This paper is aimed at comparing the results from our university with the conclusions of other studies, so a qualitative questionnaire has been designed to this purpose. The questionnaire checks students' attitudes to Medical English in general, their awareness of strategies and to what degree they actually use them. This research also stresses the difference between theory and practice when it comes to applying strategies to actual learning situations and it inspires certain ideas for promoting strategies and making them more practical for students to use.

The results of the qualitative research, which included a relatively big number of informants, partly match the results of particular studies that this paper refers to, but some of them are rather surprising as well. The research methodology, the detailed analysis of the results and the particular conclusions will be presented in the paper.

2. ESP and Medical English vocabulary

Unlike General English (GE), ESP (English for Specific Purposes) is usually described as "applied ELT" as it is designed to meet specific needs of learners and it has contents that are related to particular professions and situations (Dudley-Evans and St John, 1998 in: Gatehouse, 2001). The purpose for which learners learn the language is crucial for choosing (authentic) materials in ESP and deciding on a teaching methodology, which can be in contrast with that of GE (Gatehouse, 2001). As ESP is divided into EAP (English for Academic Purposes) and EOP (English for Occupational Purposes), it usually targets adult learners at the intermediate or ad-

vanced level. Due to globalisation, the increase in vocational training and the fact that English is the language of international communication, ESP is becoming more important and more practical (Harding, 2007: 6 - 7). ESP aims at promoting professional and academic communication, it is extremely precise and it is specific terminology-wise. It involves using professional literature, taking part in conferences, writing scientific papers and it also facilitates using Internet technology (Mičić, 2009: 88).

Characterized by a specific needs analysis and carefully selected materials, ESP depends on vocabulary even more than GE. In order to be able to function in any of the areas that ESP covers, a student needs to gain knowledge of specific *technical* and *non-technical* words (Harding, 2007), to store them in their long-term memory and be able to use them productively.

Owing to the fact that all the greatest medical discoveries have been published in English (Mičić, 2009: 82), it could be said that English for Medical Purposes is a large and ever-developing sub-system of ESP which has a specific nature, as the majority of vocabulary in this field is highly technical. In other words, these are terms that have a restricted, specific meaning in the field, are not used in GE and mostly have Latin and Greek origin (Robinson, 2009: 37). There are also some general terms that are highly frequent in the field of Medical English (e.g. *fatigue*), general English words which have a specific meaning in this particular discipline (e.g. *benign*), as well as numerous collocations (Dudley-Evans and St John, 1998: 83; in: Robinson, 2009: 37). Apart from technical and semi-technical terms, Medical English is characterized by abundant use of synonyms (e.g. *myopia* = *short-sightedness*), abbreviations (e.g. *AIDS*) and eponyms (e.g. *Parkins* – *Parkinsonism*). The words of Greek and Latin origin have irregular plural as they keep Greek and Latin formants (e.g. *bacterium* – *bacteria*, *criterion* – *criteria*) and it is thus necessary to learn them by heart, which is usually not very popular among students. Another morphological specificity of Medical English is a great number of compound words, whereas grammar is mostly simplified and characterized by the use of Present Simple Tense and conditional sentences as well as passive voice. Furthermore, Medical English is rich in medical phrases that sound strange in everyday communication (e.g. *The patient presented with laryngitis*). Finally, Medical English is characterized by specific spelling and pronunciation rules which must be strictly respected in order to avoid making serious mistakes concerning the meaning (Mičić, 2009: 75 – 83). All of the above mentioned characteristics make it clear that Medical English is a very demanding sub-system of ESP.

3. Language learning strategies – an overview

So, the question is - how to facilitate learning and acquiring the complex Medical English, especially its vocabulary? This paper's aim is to check whether this could be done with a help of language learning strategies whose popularity has been constantly growing in the field of GE.

Despite the fact that numerous attempts have been made at defining language learning strategies, there are many authors who still think they are vague and difficult to identify and define (Ellis, 1997: 37). Oxford (1990: 8) describes them as "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective and more transferrable to new situations", whereas Nunan (1991: 167) simply defines them as "mental processes which learners employ to learn and use the target language". Learning strategies are considered to be problem-oriented, as learners use them to overcome a particular learning problem they need to deal with (Ellis, 1997: 532) and having the knowledge of strategies could be important as learning seems to be more effective when you are aware of the process underlying the learning you are involved in (Nunan, 1999: 171). A good strategy is supposed to increase the efficiency of vocabulary learning and vocabulary use (Nation, 2001: 216). Oxford (1990: 9-11) considers strategies to be tools that make sense only when students are willing to take greater responsibility for their own learning, which is not often the case, owing to the passive cultural and educational system they may be part of.

The basic problem, according to some authors (Nunan, 1991: 168) is the lack of a coherent taxonomy, as most researchers have developed their own lists that most often differ from each other to a certain extent. Strategies were researched as early as 1980s when Tarone (1980, in: Ellis, 1997: 529) differentiated among three types of strategies: *production* (e.g. simplification or discourse planning), *communication* (i.e. attempts to deal with problems in communication) and *learning* (e.g. inferencing or initiation of conversation with native speakers), whereas Wenden (1983, in: Ellis: 1997: 540) put self-directing strategies into three categories: *knowing about language*, *planning* and *self-evaluation*. Rubin (1981, in: Ellis, 1997: 535) considered *clarification/verification* to be the top strategy; it involves putting a word in a sentence, looking it up in a dictionary, asking for the meaning, etc. O'Malley and Chamot (1987) divided strategies into three major types: *cognitive* (e.g. note-taking), *metacognitive* (e.g. mixing with natives or other nations) and *social* (e.g. asking for clarification).

After inventing SILL (the Strategy Inventory for Language Learning) in 1986, where 64 individual strategies were divided into two main groups – primary and

supporting strategies - Rebecca Oxford came up with a new taxonomy (1990: 17). This taxonomy is thought to be more comprehensive and detailed, as well as more systematic and deprived of too many technical terms (Oxford, 1990: 14). She divided all the language learning strategies into *direct* and *indirect* ones. *Direct* strategies involve direct learning and they branch into *memory* (e.g. associating, using imagery or keywords, semantic mapping), *cognitive* (e.g. repeating, translating and transferring, taking notes and highlighting) and *compensation* (e.g. getting help, avoiding communication, using mime and gesture), whereas *indirect* strategies contribute indirectly to learning and branch out into *metacognitive* (e.g. organizing, setting goals, seeking practice opportunities), *affective* (e.g. taking risks, discussing your feelings with others) and *social* strategies (e.g. asking for clarification/verification, cooperating with peers, asking for correction).

Research has shown that learners vary in the frequency with which they use strategies and the choice of particular strategies they use (Ellis, 1997: 540). The factors that affect the strategy choice could be numerous and largely depend on the author. For example, Ellis (1997: 541) highlights individual learner differences (i.e. attitudes, affective states and general factors), age, motivation and even personality types, whereas Oxford (1990: 13) stresses the importance of the degree of awareness, stage of learning, task requirements, teacher expectations, age, sex, nationality, general learning style, personality traits, motivation level, etc. Doing her extensive research she has come to a conclusion that females use a much wider range of strategies, which Ehrman (1990, in Ellis: 1997) also reported. Oxford and Nyikos (1989, in Ellis 1997: 541) came to a conclusion that motivation played a great part in the choice and frequency of using language strategies, especially the presence of instrumental motivation. Chamot (1987, in: Ellis 1997:) stated that task type had an important role in learner's choice of both cognitive and metacognitive strategies and Oxford (1990: 13) claimed that learners' choice of strategies could be often inspired by teacher expectations and testing requirements. Studies also showed that experienced learners were superior over novice learners and that they used strategies more frequently (Oxford and Erhman, 1987, in: O'Malley and Chamot, 1990: 107), whereas good learners were superior over bad learners (Naiman et al 1978, in: O'Malley and Chamot: 102).

A 'good language learner' is usually said to be able to find their own way through learning a language, which means they can organize information about the language, use every opportunity to practice what they have learned, get the meaning without necessarily understanding every single word, learn to make intelligent guesses, etc (Nunan, 1991: 171). Moreover, successful language learners are characterized by knowing what their vocabulary goals are and by being able to choose

what vocabulary to focus on (Gu and Johnson, 1996; in: Nation: 218). Having administered a questionnaire and compared the results with learners' scores on vocabulary tests, Gu and Johnson (1996; in: Nation: 225) even came up with five different types of learners according to their choice of strategies. According to these authors, the best students are those who learn through natural exposure, carefully, but without exact memorization and they are named *readers*. Next best students, or *active strategy users*, would be those who use a variety of strategies to learn the words they find important. *Non-encoders* are average users of strategies, whereas *encoders* usually use associations, imagery, visualisation or prefer breaking words into parts. Finally, *passive strategy users* are the least successful learners, who make very little use of strategies as they strongly believe in memorization. This categorization builds up to a certain extent on the personality types theory by Erhman and Oxford (1990), where Myers-Briggs scale was used in order to identify different types of personalities and compare them with the strategy choice.

There are several methods for investigating the use of learning strategies. Apart from actually observing learners performing tasks in classroom settings, structured interviews and questionnaires can be used as well, as they give us a retrospective insight into the strategies learners used (Ellis, 1997: 534). There are also diary studies and think-aloud tasks, but they are not considered to be practical enough. Generally speaking, questionnaires are thought to be the best option, although they have their downside as well, mostly because not all the learners are able to describe the strategies they use (Ellis, 1997: 533). Another problem could be the subjectivity of self-reports and the fact that many people could be uncertain what to report (O'Malley and Chamot, 1990: 91). On the plus side, questionnaires are easier to manage and data manipulation is much simplified (O'Malley and Chamot, 1990: 94), which is one of the reasons a questionnaire was chosen for this study as well.

4. The study

4.1. Goals and informants

The qualitative research that was conducted for the needs of this paper aimed at checking certain results of the studies mentioned above and investigating the possibility of using language learning strategies in learning and acquiring Medical English vocabulary. The sub-goal was to investigate students' attitudes towards Medical English in general. All the students were divided into two groups – first year students and second year students, so that we could check the potential differences between more and less experienced students.

Taking the results of the recent studies into consideration, this research has focused on answering several key questions:

1. if informants are aware of the importance of learning Medical English;
2. if females use strategies more often than males;
3. if females use a wider range of strategies than males;
4. if the instrumentally motivated informants use strategies more often than others;
5. if more experienced learners are more aware of strategies and use them more often than less experienced ones;
6. if informants use strategies unconsciously rather than consciously;
7. if direct and indirect strategies are used equally.

128 informants willingly took part in this research by filling in the questionnaire and there was an equal number of males and females. All of them are medical students who were currently attending Medical English classes, either as first year students (50%) or second year students (50%). Most of them had been learning English for 10 or 12 years, although there were some who admitted learning it for only 2 or 3 years, as well as those who had been exposed to it much longer (probably through private classes and language courses, outside formal education). The majority of informants were students from Serbia whose mother tongue is Serbian, but there were four informants (all females) who had the status of foreign students who were studying in Serbian using it as a second language and whose mother tongue was different.

4.2. The questionnaire

The research participants were asked to fill in a questionnaire that consisted of three parts. In the first part, informants were asked to provide some basic information (their name, what year they were on and how long they had been learning General English), to evaluate their knowledge of GE on the scale from very good to poor and to say how important they thought knowing General English was for them (very important, important or not important).

The second part of the questionnaire consisted of four multiple-choice questions and three open questions. The students had to state whether they thought Medical English was easier or more difficult than GE and to what extent; if they thought ME was more difficult, they had to explain why. They were also asked to say whether learning Medical English was important for them or not and to explain why they thought so. Furthermore, students had to decide what was particularly difficult to learn in Medical English in general and what they themselves found the most com-

plicated. Finally, they were asked if they thought they used any strategies when learning the language and what they were.

The third part of the questionnaire was based on Oxford's (1990: 293-299) SILL (version for speakers of other languages learning English) and it consisted of six multiple-choice questions where students were invited to circle as many statements as they held true for themselves. Each question covered a particular direct or indirect group of strategies (i.e. memory, cognitive, compensation, metacognitive, affective and social) and some of the questions were slightly changed (or even omitted) so as to fit Medical English learning situation.

4.3. Result analysis and comments

The analysis of the results was done by comparing two groups of females and two groups of males after which males and females were compared as well.

When asked to evaluate their overall knowledge of English, 31% of male first year students, 22% of female first year students, 37% of male second year students and 19% of female second year students stated it was very good. The majority of all the students described their knowledge as ‚good‘ – 47% of male first year and 38% of male second year students, as well as 44% of female first and second year students. A relatively small number of students admitted their knowledge was ‚satisfactory‘ – 16% of male first year and 19% of male second year students, but 25% of female first year and as much as 28% of female second year students. The smallest number of all the students described their knowledge as ‚poor‘ – 6% of male first and second year students and 9% of female first and second year students.

The majority of students stated that knowing the English language was ‚very important‘ for them, whereas only one male second year student said it was not important at all. Students' answers to this question are shown in Table 1.

Table 1

I think that knowing English is for me.			
Informants	very important	important	not important
male 1 st year	66%	34%	0%
female 1 st year	78%	22%	0%
male 2 nd year	91%	6%	3%
female 2 nd year	84%	16%	0%

When asked to compare Medical English to General English, the majority of informants stated they were equally difficult, but the percentage of this answer was higher among second year students than among first year students (23 male and 29 female second year students gave this answer, whereas there were 13 male and 16 female first year students who opted for the same answer). The majority of male first year students (14 out of 32) said Medical English was more difficult and there were 13 female first year students who had the same opinion. As for the second year students, only 7 male students said it was more difficult, whereas there were 11 female students who shared their opinion. Surprisingly, there were 8 first year students (5 males and 3 females) who said Medical English was easier than GE, whereas only 4 second year students (2 males and 2 females) agreed with this.

Those students who claimed that Medical English was more difficult than GE were asked to explain why they thought so and they mostly gave similar answers, regardless the year they were on. Most of them mentioned specific medical terms that are not possible to hear in everyday communication, as well as a great number of words of Latin and Greek origin that are difficult to pronounce in English. Some of them were aware of the necessity to use a dictionary of Medical English, especially because of the fact that there are many words that have different meanings in Medical English in comparison with GE. Others complained of the huge number of words that they should learn and of spelling problems. Some female second year students thought Medical English was more difficult because it is not used in everyday, colloquial, communication, so it is necessary to have medical knowledge in order to understand these difficult terms that could be problematic even in their mother tongue. According to the answers the students gave to this question, we can conclude that a great number of them are aware of the importance and specificity of vocabulary in Medical English. Communication and discourse were also mentioned as importantly different, whereas none of the students mentioned structures as a reason for claiming ME was more difficult than GE.

Students also had to decide whether it was important for them to learn ME or not and almost 100% of them answered positively. Only one male second year student opted for the negative answer and it was the same person who claimed that knowing GE was unimportant for him. He explained that he simply didn't need English at all in his future workplace, so we can only suppose that this person intends to work in the country or in a small town where he expects not to have contact with foreign patients. Moreover, he probably doesn't have any career aspirations or at least he doesn't think that the knowledge of English is connected with it in any way. Those students who thought it was important to learn ME explained their choice by a wish to study or work abroad at some point, to use important medical literature

which is mostly in English nowadays or to take part in international symposia. They also claimed that English had taken over the leading role as the language of international communication (i.e. lingua franca) and that owing to globalization it was impossible to function without speaking this language. Some of them mentioned ME facilitated using the Internet, reading the latest medical studies and exchanging ideas with colleagues from abroad, as well as communication with foreign patients. Some students had a very clear idea about their future and they explained knowing ME would help them a lot in getting a job, doing scientific research or earning a Master and PhD degree. Some female second year students said that everyone should know English, especially doctors, as it is a way to gain general knowledge and to be well-informed.

The explanations students gave could help us conclude that they are aware of the importance of knowing ME, which is the first question this paper intended to answer. They obviously have all the good reasons for learning ME and both instrumental and integrative motivation are present. There were no great differences between first and second year students or male and female students, as they mostly gave identical reasons.

Most of the informants, especially first year students, thought that vocabulary was the most difficult thing to learn in ME, whereas a much smaller number of them thought it was grammar or everything. The results are shown in Table 2.

Table 2

What is particularly difficult to learn in Medical English?			
Informants	Grammar	Vocabulary	Everything
male 1st year	16%	69%	15%
female 1st year	22%	59%	19%
male 2nd year	53%	31%	16%
female 2nd year	31%	56%	13%

The difference between first and second year students could be explained by the differences in the curriculum. First year students learn words of Latin and Greek origin for the first time, they have to learn irregular plural and the classes mostly cover organs and systems. On the other hand, second year students are already familiar with most of the difficult lexis, but they do more complicated grammar sections (e.g. conditional sentences, causative have, cloze tests, transformations...).

As for the exact things that in their opinion hinder learning ME vocabulary, the majority of all the students opted for pronunciation, the only exception being the group of male second year students who thought the words of Latin and Greek origin were the biggest obstacle. The frequent use of prefixes and suffixes and irregular plural got almost equal number of votes, whereas there were also some students who opted for 'other' and gave their own answers (e.g. not possessing a medical dictionary, too many new terms at a time, all of the above mentioned or nothing at all). The results are shown in Table 3.

Table 3

What do you find particularly difficult when learning Medical English vocabulary?					
Informants	Pronunciation	Words of Latin and Greek origin	Frequent use of prefixes and suffixes	Irregular plural	Other
male 1st year	34%	28%	19%	19%	0%
female 1st year	28%	25%	22%	16%	9%
male 2nd year	22%	28%	19%	22%	9%
female 2nd year	47%	0%	19%	22%	12%

Finally, at the end of the second part of the questionnaire, students were asked if they thought they used any strategy when trying to learn new ME vocabulary and if they did to state which ones. Only 10 out of 32 male first year students and the equal number of female first year students said they used some strategies. As for second year students, 12 female and 16 male students admitted using strategies, whereas others denied using any.

Those who claimed they used strategies gave rather interesting answers. Most of them mentioned creating mental linkages with the words they already know either in Latin or in Serbian, as well as associating new words with those they are already familiar with or making 'personal associations'. One male first year student said that he usually wrote a particularly difficult new word on a post-it note and put it on the wall, whereas another male student said he usually wrote down the new and difficult word several times in order to memorize it. Constant repeating of problematic vocabulary and noting down the new words were also mentioned, as well as watching films without sub-titles and one student from this group (i.e. male first year) said he

repeated English words while studying anatomy. Female first year students mentioned the same strategies as their male peers, but they also said they analyzed word parts (i.e. affixes and stems), pronouncing the words repeatedly and trying to use new words in everyday conversation or other contexts. One of them mentioned imagining a situation where a particular word could be used and noting down several sentences containing that word. Watching American medical TV-shows (e.g. "Dr House" and "Grey's Anatomy") was mentioned as well. Male second year students repeated what the first year students mentioned, but some of them also said they used translation into their mother tongue or Google Translate as a tool. Some of them mentioned memorizing new words according to songs they remind them of or by comparing them with the words from Roman languages. They also said they read textbooks in English, tried to think in English and did a lot of repetition. Finally, female second year students mentioned creating linkages to Latin, exchanging letters with colleagues from abroad and trying to find a 'sound' association (if a word is difficult to pronounce). One of them said she usually classified new vocabulary into various categories in small notebook dictionaries and learning word families.

After analyzing the answers students gave to this question, we can conclude that there are not many differences between male and female students, but that both female groups were more inventive than male groups. They listed more different strategies that are not necessarily connected with creating linkages or associations with the words they already know. They also seem to be more aware of the difficulties they might face while learning ME vocabulary (e.g. pronunciation) and they are more likely to organize their vocabulary in a logical way. So, we could say that females use a wider range of strategies than males and that they think about them more profoundly, which means that the third hypothesis was confirmed. However, we cannot say that females use strategies more often than males, as they are rather equal and the number of male second year students who use strategies is higher than any other group. So, the second hypothesis was not confirmed. The results also show that more experienced learners (second year students) use strategies more often and are more aware of them (16 males and 12 females), so the fifth hypothesis was also confirmed.

The aim of the final part of the questionnaire was to check if students used strategies unconsciously even if they claimed they didn't use them at all, as well as what type of strategies were most popular among this population of students. The first question consisted of seven direct strategies that can be grouped under memory strategies as they are all aimed at remembering things (vocabulary in this case) more effectively. As expected, the greatest number of students opted for creating linkages and thinking of relationships with the words they already knew (24 male first year,

19 female first year, 20 male second year and 22 female second year students). Another popular strategy was connecting the sound of a new English word and an image or picture of the word to help them remember (50% of all the students) and remembering the new word by creating a mental picture of a situation in which the word might be used (38%). A smaller number of students opted for reviewing English lessons often (only 21 out of 128 informants, mostly male first year students) and using rhymes to remember new English words (14 students). 20 students opted for memorizing new words by remembering their location on the page or in the book and some students gave their own ideas, one of which was watching medical films or serials.

The second question consisted of ten direct strategies that involve using all our mental processes and that are called cognitive strategies. 63% of all the students chose watching English language medical TV shows, but second year students chose this option more often than first year students. 58 out of 128 students said they always highlighted the word they wanted to learn, but females chose this option more often than males (35 females and 23 males). There were also many students who said they always noted down and pronounced a word they wanted to remember several times (36%), but females were more numerous here as well (27 out of 128). A certain number of students opted for all the other strategies in this group as well, such as trying to talk to native speakers, using the words they know as often as possible, reading medical texts outside classes, trying to find a Serbian word that is similar to the new English word, studying the word parts and breaking words into parts in order to figure out their meaning (this one was more popular among second year students, both males and females).

The third question consisted of three direct strategies that involve compensating for missing knowledge and are called compensation strategies. The most popular strategy in this category was making guesses in order to understand the new word. 62% of all the students circled this strategy and there were almost equal number of students in each group. They also admitted asking their teacher for help (42%) and the smallest number of students who chose this option belongs to the group of male second year language students. They also gave their own options, such as looking the word up in a dictionary, using Google Translate or guessing from context.

The fourth question consisted of eight indirect strategies that are connected with organizing and evaluating one's knowledge – the so-called metacognitive strategies. 56 out of 128 students said they noticed their mistakes and used the information to help them do better and most of them belong to the group of male first year students (17) and female second year students (15). A great number of students opted for paying close attention to their teacher pronouncing new words (47 students),

but females were more numerous, especially female first year students (17). Also, many students said they thought about their progress in learning English (61 out of 128, females being more numerous). Interestingly enough, only 4% of all the students opted for planning their schedule so they could have enough time for learning English, which can be explained by a very tight schedule and loads of work they need to do for other subjects. 43 students said they tried to read a lot in English and that they had clear goals for improving their English skills (29 students).

The fifth question consisted of three indirect strategies that imply managing one's emotions and that are called affective strategies. Not many students chose strategies from this category, but the most popular one was using English even when they knew they would make a mistake (63%) and both males and females chose this strategy. A relatively small number chose the strategy of talking to someone else about how they felt when learning English (10 male students and 12 female students). Some students gave their own answers to this question, so they mentioned not using English at all when they felt insecure or not using it because they were afraid of making a mistake in presence of a good English speaker or because they didn't like the way their English sounded and most of these answers were given by females.

The final question consisted of four indirect strategies that are connected with learning with others and which are thus called social strategies. The most popular answers in this category were asking someone to repeat or slow down if not understanding something in English (40 males and 44 females) and asking for help from someone who speaks English well (42 males and 38 females). A small number of them said they regularly asked their teacher for help (8% of males and 9% of females), which was rather surprising. They gave their own options as well – looking for the answers on the Internet, using a dictionary, checking exercises with peers who are better at English, taking private classes.

The most popular and the least popular strategies from each group of direct and indirect strategies among students are presented in Table 4 and Table 5 respectively.

Taking these results into consideration, we could conclude that the most popular strategies among students are cognitive and compensation strategies. All the three compensation strategies in the questionnaire got a relatively big number of votes, as well as the cognitive strategies, although they were also the most numerous in the questionnaire. Metacognitive strategies seem to be least popular, whereas memory and social strategies are rather popular among students. So, there are no great differences between direct and indirect strategies popularity-wise (which means that the seventh hypothesis was proved), although it could be said that students are more

Table 4

Type of strategy	Most popular strategy	Students in %
Memory	i think of relationships between what I already know and new things I learn.	66%
Cognitive	i often watch medical films and TV shows.	63%
Compensation	i try to guess the meaning of a new word.	62%
Metacognitive	i notice my English mistakes and use that information to help me do better.	44%
Affective	i speak English even when I am afraid of making a mistake.	63%
Social	if I don't understand something in English, I always ask somebody to help me understand.	66%

Table 5

Type of strategy	Least popular strategy	Students in %
Memory	I use new English words in a sentence so I could remember them.	9%
Cognitive	I often practice pronunciation in English.	16%
Compensation	If I don't understand a word in a text, I continue reading, as I think I don't have to know all words.	21%
Metacognitive	I plan my schedule so as to have enough time for learning English.	4%
Affective	I talk to someone else how I feel when I am learning English.	17%
Social	I regularly ask my teacher for help.	9%

aware of direct strategies as they more often mentioned them in the second part of the questionnaire. Indirect strategies were rarely mentioned, especially affective ones, but the final part of the questionnaire proved that students used them unconsciously. It is also important to say that every single student who took part in this

study voted for some strategies in each category, even those who earlier denied using any strategies. It means that a large number of students (63%) are not aware of the existence of strategies or the way they could help them learn the language, thus proving our sixth hypothesis (i.e. that informants mostly use strategies unconsciously). As for the differences between first year and second year students, we can conclude that second year students are more aware of strategies and they more often reported using some of them (44%, whereas 31% of first year students did the same). The difference is not big, but we could say that more experienced students are more aware of the existence of strategies and use them more consciously. As for their answers to the questions in the third part of the questionnaire, there are no great differences, so it could be said that first year and second year students use strategies equally often and in approximately the same number.

Considering all the results, several conclusions could be drawn. First of all, the first and second year medical students from the University of Belgrade are perfectly aware of the importance of knowing both GE and ME and they have all the good reasons for thinking so. Secondly, they are able to recognize the obstacles in learning and acquiring ME and some of them are aware of using strategies to help them learn ME vocabulary. More students use strategies unconsciously, but they all use at least several, both direct and indirect, strategies. Female students seem to be more creative when it comes to choosing strategies and being aware of them, which matches the findings of other studies we have mentioned. Females also seem to be better organized and to care more about organizing their knowledge. More experienced students seem to be more aware of strategies and report using them more often, which matches some other findings from abroad in the field of GE. A great number of students who took part in the study seem to be highly motivated and their motivation can be described as both instrumental and integrative. All the motivated students used more strategies than less motivated students and they knew exactly what they should target, so the fourth hypothesis (i.e. that only instrumentally motivated informants used strategies more often than others). This finding also matches some other studies we have mentioned.

As for the types of strategy users, according to Gu and Johnson (1996; in: Nation: 225), it seems that most medical students from the University of Belgrade fall into two categories – *non-encoders* and *encoders* – whereas there is a small number of *active strategy users* as well. There are almost no *passive strategy users*, which is encouraging, but there are no *readers* either, which is probably the result of the fact that these students have no idea of what strategies are and what to do with them. If they use any strategies, they use them unconsciously and simply because they find it natural, not because they have a clear idea of how to facilitate their learning.

5. Ideas and suggestions

Having this problem in mind, it is clear that teachers should help their students by promoting language learning strategies and stressing their importance. In other words, students should be informed of the existence of strategies and shown how to use them in particular aspects of Medical English learning.

How can this be done? First of all, students' awareness of strategies should be checked at the beginning of a new school year. They could be given a questionnaire similar to the one described above, which would aim at discovering whether they have heard of any strategies, if they personally use any and in what situations. Teacher should note down how many active and passive strategy users there are in the group, so that their progress could be followed. Depending on the results, teacher should then choose most useful strategies to present to students and give several examples of their use. It is important to do this at the very beginning of a new term, so that the progress could be followed throughout the academic year. During classes, teacher should constantly remind students of the strategies that were presented to them and point out various situations where these strategies could be naturally used. In order to follow students' progress more accurately, students can be asked to report on their use of strategies from time to time or to "think aloud" while doing a particular vocabulary task. The knowledge of active and passive strategy users should be checked in a test after some time and if active strategy users are proven to have better results, strategies should be integrated into classes as a common method.

However, in order to make this possible, it is important for teachers themselves to be aware of strategies and how they can use them to facilitate teaching and learning certain aspects of language, especially vocabulary.

6. Conclusion

In conclusion, English for Medical Purposes, as a demanding and thriving sub-system of ESP, could make use of language learning strategies, as they could facilitate learning and acquiring some of its aspects, especially vocabulary. Although very popular and widely used in the field of GE, strategies have not been researched a lot in the field of ESP and its various sub-systems. Several important studies in the field of strategies have shown that their appropriate use can enhance memorization and acquisition of vocabulary, so the question is how these findings could be applied to the field of ME and if they would show any results.

The questionnaire that was created to check if strategies are used at Faculty of Medicine, University of Belgrade, revealed several interesting things. First of all, strategies

are used by a great number of medical students, but rather unconsciously, as they are not even aware of their existence. More experienced students (second year students) seem to use strategies more than novice students, whereas females seem to be more inventive and creative when it comes to choosing particular strategies. However, males and females use strategies equally often and they choose both direct and indirect strategies, memory and social strategies being most popular and metacognitive least popular. Finally, students' motivation seems to be connected with their use of strategies, as both integratively and instrumentally motivated students opted for strategies more often than unmotivated ones.

Having these results in mind, the paper offered some ideas of how to integrate language learning strategies into ME classes and how to help students to use them and recognise them. The classes that stress the importance of strategies and promote their use might have better test results as a consequence which is why language learning strategies should be taken seriously by teachers themselves in the first place.

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Mirko Štifanić*

Loša komunikacija i druge liječničke pogreške

SAŽETAK

Brojne znanstvene spoznaje i otkrića omogućavaju tehnološki napredak medicine i učinkovitije metode liječenja te visok postotak uspješnosti medicinske prakse. Unatoč tome, loša komunikacija liječnika s pacijentom i njena percepcija od strane pacijenta razlog je za povećanje otuđenosti, nerazumijevanja, nesuglasnosti pa i sukoba liječnika i pacijenta. Loša komunikacija nerijetko je pogreška koja omogućava druge pogreške za koje je odgovoran ljudski i/ili tehnički faktor. Ako pacijent ne dobije ispriku, ili barem objašnjenje o onome što se dogodilo, loša komunikacija može ga motivirati da tuži zdravstvenu ustanovu ili djelatnika.

U radu se upozorava na problem različitog viđenja, shvaćanja i definiranja pogreške. Je li to komplikacija, nuspojava, nesreća, nesavjesnost, nemar? Autor se zalaže da se pogreške promatraju kao šansa za unapređenje kvalitete medicinske prakse i poboljšanje odnosa između liječnika i pacijenta te preveniranje budućih pogrešaka.

Da bi se smanjio broj pogrešaka i šteta od pogrešaka, prije svega u obliku kršenja prava pacijenata i devalvacije ugleda liječnika, potrebno je osuvremeniti edukaciju liječnika te osmisliti strategiju upravljanja zdravstvom, a u sklopu toga definirati: a) upravljanje pogreškama, b) standard komunikacije liječnik-pacijent, c) protokol priopćavanja loših obavijesti, te d) osnovati instituciju za rješavanje sukoba liječnika i pacijenta stvaranjem novog saveza, a u slučaju potrebe i za rješavanje posljedice pogreške mirenjem.

Ključne riječi: loša komunikacija, liječničke pogreške, upravljanje pogreškama.

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Uvod

Povijest analize međusobnih odnosa, komunikacije između liječnika i pacijenta, poprilično je duga, ali nikad nije bila tako aktualna kao danas. Prošla su više od dva tisućljeća od nastanka poznatih Hipokratovih spisa u kojima on opisuje odnos prema bolesniku, a više od dva stoljeća od kada je Thomas Percival izdao knjigu o odnosima između liječnika i pacijenta (1803. godine). Henry Siegrist, povjesničar medicine, 1931. godine s velikom je sigurnošću tvrdio da je komunikacija između liječnika i pacijenta odnos između dviju osoba, dok je Joseph Schumpeter desetak godina kasnije taj odnos promatrao kao primjer iskorištavanja čovjeka od čovjeka. Godine 1996. Josip Županov je primijetio da se liječniku mora osigurati mnogo više vremena za razgovor s pacijentom. Godine 1999. izašlo je drugo izdanje knjige "Kute i pidžame" Paola Cornaglia-Ferrarisa, talijanskoga liječnika i profesora Medicinskog fakulteta u Genovi, koji upozorava da je liječnik zbog loše komunikacije s pacijentom - vuk, a pacijent - ovca¹. Sve u svemu, gotovo da nema područja medicine koje je potaknulo više socioloških raščlambi od područja komunikacije između liječnika i pacijenta².

Pacijentovo viđenje javnog zdravstva: nitko nije svjestan koliko bi pacijentu značilo kad bi bio prepoznat kao osoba

Kako hrvatski pacijenti vide liječnika i komunikaciju s njime te svoj položaj u javnom zdravstvu, zorno pokazuje sljedeće pismo³: *Liječnik je član jedne od najcjenjenijih profesija. Zašto? Tu su da pomognu, liječe, uklone bol i smetnje i u krajnjem slučaju pokušaju spasiti život ili olakšaju put do smrti. Školovanje liječnika je izuzetno teško i zahtjevno. Biti liječnik znači odricati se dobrog dijela slobodnog vremena (smjene, dežurstva), nastojati uvijek biti maksimalno koncentriran da se ne omakne kakav propust koji može biti koban po pacijenta, učiti permanentno i znati koliko toga još ne znamo i u koliko smo slučajeva nemoćni. Svega su toga pacijenti svjesni i zato u osnovi cijene i poštuju liječnike, drže do njihovog mišljenja, pridržavaju se njihovih uputa. Liječnike gledaju kao slamke spasa. Ali to povjerenje i poštovanje obavezuje i toga moraju liječnici biti svjesni.*

Liječnik i pacijent ne govore istim jezikom. Ne razumiju se. Malo je pacijenata koji su dovoljno medicinski obrazovani da bi iz šturih rečenica, punih nerazumljivih pojmova, skraćenica, latinskih naziva shvatili što im liječnik želi reći. Između liječnika i pacijenta komunikacija je loša. Problem je u neverbalnoj komunikaciji - u osmijehu, stisku ruke.

¹ Cornaglia-Ferraris, P., (2000.), Camici e pigiami, Laterza&Figli Spa, Roma-Bari

² Štifanić, M., (2003), Ima li nade za kute i pidžame, Udruga Pacijent danas, Rijeka, str. 82.

³ To je pismo koje mi je uputila gospođa Karla K., 2010. godine, i naslovlila ga "Zdravstvo – pogled iz kuta jednog pacijenta".

Toga gotova da i nema. Osim onih "sretnih pacijenata" koji su stigli po nekoj preporuci, babi ili stricu, ili ih je netko doveo za ruku. Liječnici kao i drugo medicinsko osoblje odnose se prema pacijentu hladno i profesionalno, pacijent je ovdje samo jedan od mnogih, a oni su ionako pretrpani poslom. U očima im se isčitava pitanje: "A što sad i ti hoćeš od mene?" Nažalost, nitko nije svjestan koliko bi pacijentu značilo kad bi bio prepoznat kao osoba, kad bi bio uvjeren da se čini sve ili gotovo sve što je moguće da mu se pomogne. Ta sigurnost imala bi veliki terapijski učinak.

Pacijentu je liječnik teško dostupan. Potrebno je ishoditi prave uputnice, naručiti se, čekati na termin, čekati u redu, nadati se da pregled neće biti otkazan. Sve to i nije tako strašno ako se radi o nekom redovnom pregledu, kad nema straha od bolesti, nego se obavlja pregled preventive radi. Ali pacijenti često dolaze kad je bolest već uznapredovala. I tada kreće - pregled specijaliste koji ne može postaviti dijagnozu jer je potrebno obaviti niz pregleda prije toga - analize krvi, analize tkiva, ultrazvuk, CT, rentgen, itd. i nakon toga povratak specijalisti. Na to sve potrebno je opet izgubiti jako puno vremena i energije od odlaska opet svom obiteljskom liječniku, dobivanja silnih uputnica, naručivanje na raznim odjelima bolnice, čekanje. U međuvremenu strah, nervoza i neizvjesnost kod pacijenta raste. Nalaze koje prikuplja pacijent ne razumije. Oni nisu ni pisani da bi ih on razumio, a specijalisti koji ih pišu nisu dostupni pacijentu. Njih se ne može ništa pitati. Samo mu sestra sa šaltera uruči komad papira na kome piše njegova sudbina. Ali tu sudbinu reći će mu netko drugi. Onaj prvi specijalist koji ga je uputio, ili eventualno njegov obiteljski liječnik. Kada to sve obavi i vrati se sa svim nalazima kod onog prvog specijaliste, pun nade i očekivanja da će mu sada netko postaviti nedvosmisleni dijagnozu često slijedi hladan tuš. Specijalist nije dobio ono što je htio, nalazi raznoraznih aparata i analize ne upućuju s velikom sigurnošću da se radi o ovoj ili onoj bolesti, specijalist ne zna što je točno njegov kolega dijagnostičar mislio dok je pisao nalaz. I tako slijedi - specijalista šalje pacijenta nekom drugom specijalisti, a taj opet traži nove nalaze.

Potrebno je napraviti obrat u pristupu. Liječnici se moraju timski okupiti oko pacijenta, a ne da pacijent luta od jednog do drugog kao izgubljena duša noseći sa sobom papire koje ne razumije. Potrebna je suradnja raznih specijalista, ali ne preko "papira" već u direktnoj komunikaciji među liječnicima s težnjom da se što prije i uz manje gubljenje vremena i utroška novca dođe do točne dijagnoze i liječenja.

Nadalje, treba se pozabaviti problemom pacijenata koji nisu u stanju sami obavljati preglede. Od pacijenata se očekuje da su u dobroj kondiciji, pri punoj svijesti, dobrih mogućnosti zaključivanja i rasuđivanja, a zaboravlja se da su veliki dio njih osobe u visokoj životnoj dobi ili i toliko shrvani bolešću da nisu u takvom stanju. Tada taj trnovit put uz pacijenta prolaze i njihovi članovi obitelji (ukoliko su sretni da ih imaju) pa i oni gube vrijeme, izostaju s posla što donosi probleme sa poslodavcima ili ne znaju kome povjeriti djecu na čuvanje.

Kod nas se gotovo ne koriste resursi volontera. Uvjerena sam da ima puno osoba koje bi volontirale u bolnicama i pomagale medicinskom osoblju. Potrebno je da zdravstvene ustanove definiraju takva "uska grla" u svom radu gdje bi im educirani volonteri mogli pomoći. Kad bi bolnice javno objavile takve potrebe, iz udruga civilnog društva odaziv sasvim sigurno nebi izostao.

Bilo bi poželjno da liječnici i medicinsko osoblje više komuniciraju sa udrugama pacijenata. Trebali bi ukazivati na probleme koje nailaze u radu – preopterećenost, nedostatak kadra, opreme, sredstava, lijekova. Na taj način javnost bi bila bolje upoznata, a i postojala bi mogućnost pritiska na institucije da se stanje mijenja na bolje.

Ukoliko je liječnicima stalo do svoje profesije, a svrha te profesije je liječenje oboljelih, onda je u njihovom interesu da se oboljelima pruži najviše što je u datom trenutku moguće. Na taj način osiguravaju poštivanje velikog truda uloženog u svoje obrazovanje, svakodnevnih odricanja, redovnih stresnih situacija, imperativa da uvijek budu na visini zadatka i nemoguće misije da budu nepogrešivi. Pacijent i liječnik su partneri, jedan bez drugog ne mogu. Kao što pacijent s nadom gleda u liječnika i liječnik mora biti svijestan da je svrha njegovog postojanja upravo bolestan čovjek. Jer da nema bolesnih, ne bi bilo ni liječnika.

Emocije i osjećaji podjednako su stvarni i značajni kao i klice

Komunikacije liječnika s pacijentom i njegovom obitelji nerijetko uopće nema, a kada i postoji, ona je nerijetko - loša⁴. Zbog loše komunikacije s liječnikom kod pacijenta se javlja neizvjesnost, strah i zabrinutost. To su nerijetko nevidljivi, prikriveni, ali razorni problemi koji mogu imati vrlo teške, nerijetko odlučujuće negativne posljedice za pacijenta i njegovu obitelj. Naime, kada pacijent zaključi da liječnik površno, nezainteresirano i statistički hladno komunicira te da ga njegovo zdravstveno i emocionalno stanje samo formalno, a u biti malo ili uopće ne zanima, neće mu se povjeriti i reći istinu. Duša pacijenata tada je ispunjena strahom, tjeskobom, napetošću, ljutnjom ili krivnjom, ili pak kombinacijom svih tih osjećaja. Kada se te emocionalne zapreke nagomilaju do određene količine, osoba se više ne može s njima nositi te se predaje. Dolazi do blokade uobičajenih izvora emocionalne, duhovne i intelektualne moći. Takvu osobu

⁴ *Tešku dijagnozu su nam, nažalost, liječnici priopćili pred našim djetetom. U tom trenutku naš sin nije gledao u njih, nego u nas i našu reakciju. Mi smo se slamali, a on je počeo vrištati.* Ne mogu više nabrojiti koliko su nam puta rekli da je naš sin "gotov", da "neće dugo", da više neće stati na noge, neka se pripremimo na najgore. Nisu birali vrijeme ni mjesto, govorili su to i pred njim jer su proglasili stanje kome pa ih navodno nije mogao čuti. Govorili su to i pred drugom oboljelim djetetom kojoj je to sigurno bilo strašno čuti. Ne znam tko može podnijeti takav stres. Ako su mom djetetu šanse nikakve, ne morate mi to svaki dan ponavljati – govori razočarani otac, te nastavlja: proglasili su stanje kome, a iz inozemne klinike koju smo kontaktirali rekli su nam suprotno. Samo na temelju krvnih nalaza rekli su da nam dijete nije u komi, a to se ubrzo pokazalo točnim. Liječnici su roditeljima decidirano rekli da su šanse da se dijete probudi iz kome praktički nikakve, a kad su roditelji primijetili da im dijete reagira na podražaje, razuvjeravali su ih da bi se dječak mogao probuditi. Uskoro im se sin, što su liječnici proglasili čudom, ipak probudio iz kome. (Lj. B. Martinović: Najteži križ roditelja otežan bešćutnošću liječnika, Novi list, Rijeka, 18. 11. 2011.)

potpuno preplave osjećaji straha, ljutnje ili pak krivnje⁵. Potrebno je naglasiti da su emocije i osjećaji podjednako stvarni i značajni kao i klice, a nerijetko i najvažniji. Bolovi i patnja zbog bolesti prouzročene emocijama nisu ništa manje stvarni od onih koje su prouzročile bakterije. Nije stoga pitanje je li neko oboljenje tjelesno ili emocionalno, već u kojoj je mjeri jedno, a u kojoj mjeri drugo⁶.

Bolesnik ni u kom slučaju nije svjesno odgovoran za nastanak bolesti. Takve osobe ne pate ni od kakve duševne bolesti, već prije od osjećajnih poremećaja, često povezanih s lošom komunikacijom liječnik-pacijent. Dobra komunikacija je najbolji protuotrov⁷. Na taj se način mogu smanjiti negativne posljedice autoritarne hijerarhizacije u bolnici⁸, što je temelj za demotivirajuću, nepovoljnu i nedjelotvornu radnu i moralnu atmosferu u zdravstvu čija je posljedica loša komunikacija s pacijentom i njegovom obitelji, te brojne pogreške. Stoga je nužna organizacija zdravstva kojoj su najvažniji ciljevi: a) osiguravanje optimalnih uvjeta rada liječnika, te b) dobrobit pacijenata.

Statističke i znanstvene istine i komunikacija liječnika kao osobe s pacijentom kao osobom

Razgovor je još od antičkih vremena uvijek bio sredstvo za izražavanje, objašnjenje i razmjenu misli. Razgovor znači da pacijent ima svoje mišljenje koje nudi liječniku ili medicinskoj sestri na ogled, a onda liječnik ili sestra odgovaraju svojom argumentacijom. Dakle, da bi se razgovaralo, odnosno komuniciralo, treba imati svoj stav. Da bi osoba svoj stav mogla izraziti, mora imati izgrađen rječnik, a da bi imala izgrađen rječnik, mora se obrazovati i informirati. To je neophodno i liječniku i pacijentu. Kada toga nema, komunikacija je površna te dominira šutnja i nesuradnja. Ako se liječnik ne obazire na emocionalno stanje pacijenta te ako superiorno iznosi dijagnozu/ze i druge podatke, sugovornika (ne)svjesno stavlja u dvostruko podređeni položaj.

⁵ Peale, N.V., (1996.), Moć pozitivnoga mišljenja, Barka, Zagreb, str. 163/164.

⁶ Dunbar, F., u: Peale, N. V., (1996.), Moć pozitivnoga mišljenja, Barka, Zagreb, str. 165.

⁷ Peale, N. V., (1996.), Moć pozitivnoga mišljenja, Barka, Zagreb, str. 170.

⁸ Štifanić, M., (2011.), Pritužbe pacijenata. Kako do pravde?, Hrvatski pokret za prava pacijenata, Rijeka, 2011., str. 142: *Može se nasmijati kakva je radna atmosfera (i pozicija mladog liječnika) te kakva je komunikacija s pacijentom u bolnici u kojoj funkcionira hijerarhija koju su studenti ovako opisali:*

Tek smo upisali fakultet, i to ne bilo koji, postali smo studenti Medicinskoga fakulteta, jednog od najprestižnijih u Hrvatskoj. Mislili smo da možemo osvojiti svijet. Kako su počela predavanja, tako su počeli i susreti s profesorima i liječnicima. Opisani susret dogodio se u KBC-u na Sušaku. Po rasporedu smo došli na uvodno predavanje iz dotičnog predmeta, očekujući nekakvo upoznavanje s predmetom i profesorom (koji je ujedno i liječnik). Međutim, umjesto riječi podrške, poticaja i dobrodošlice, dočekalo nas je 15 minuta dugo predavanje o hijerarhiji u bolnici. Rečeno nam je kako trebamo znati gdje je naše mjesto. Naravno, s obzirom da smo studenti medicine, nalazimo se na dnu piramide (branidbenog lanca). Od nas se traži bespogovorno poštovanje hijerarhijski nadređenih, odnosno liječnika, te bezuvjetna poslušnost i ispunjavanje svih zahtjeva i probhtjeva. Također, nipošto ne smijemo postavljati pitanja liječniku, a još manje možemo očekivati odgovor na njih. S druge strane, također smo dužni odgovoriti na svako pitanje koje postavi liječnik te smo dužni poznavati sve što se tiče naše, ali i njegove struke. Gdje je tu motivacija? Ohrabrenje? Poticaj na nekakav veći uspjeh, daljnje školovanje... Zalosno je da i danas, u 21. stoljeću, stoljeću tolerancije, razumijevanja i međusobnog uvažavanja i ravnopravnosti, još postoje ljudi koji su uvjereni da su ravni bogovima. A mi smo samo obični smrtnici, osuđeni na štovanje idola. Takve situacije se moraju spriječiti, a to se jedino može postići edukacijom i prihvaćanjem od strane liječnika. A na nama ostaje da se i dalje nadamo...

Zaprepašteni studenti

Takva bezosjećajna i za pacijenta zatvorena komunikacija svedena na monolog ne pomaže pacijenta da čuje i razumije liječnika te da s njim razgovara, nego mu otežava slušanje i razumijevanje značenja riječi, kao i namjera, odnosno ciljeva liječnika.

Dobra komunikacija može se voditi samo između dobro obrazovanog liječnika te dobro informiranog pacijenta, u zdravstvenom sustavu u kojem je pacijent kao osoba u središtu pozornosti liječnika kao osobe, a loša komunikacija se iscrpljuje u formi, frazama, ritualima, pravilima, zakonima, nalogima, u formi bez sadržaja, tj. u lošem zdravstvenom sustavu u kojem su i liječnik i pacijent samo deklarativno – osobe. Loša komunikacija nerijetko je "paternalističkog" tipa⁹. Liječnik je "brižni roditelj pacijentu" koji se o svemu, ili "o svemu", brine, a pacijent može uz njega "biti siguran". To je pasivizirajuća komunikacija jer pacijentu onemogućava aktivnu i ravnopravnu ulogu. Loša komunikacija je kvaziracionalna, kvaziteoretska i kvazilogična. Nedostaju, naime, emocije, oduševljenje, motivacija, a sve se iscrpljuje u statistici, "znanstveno utemeljenim istinama" i zaključcima. Nedostaje humanosti, ljudskosti, topline, oduševljenosti, pažljivog slušanja i iskrenog razgovora. U dobroj, pak, komunikaciji između liječnika i pacijenta dominira iskren i kvalitetan te razumljiv razgovor. On nije samo formalan i pun fraza, niti samo površan, kao ni suhoparno racionalan i "logičan", apstraktan i nekoristan, nego stvaran, iskren i empatičan razgovor u kojem se pacijenta poštuje kao suradnika i prijatelja¹⁰. Taj razgovor ne pasivizira, ne otupljuje, ne umrtvljuje i ne onesposobljava pacijenta za samostalno mišljenje i stajališta, već suprotno, ohrabruje, motivira i aktivira.

Personalizirani pristup pacijentu

Obrazovanje studenata medicine, tj. budućih liječnika, uglavnom se temelji na statističkim i znanstvenim istinama i apstraktnom znanju pri čemu se stvarni svijet u kojem pojedinac živi smatra marginalnom činjenicom koja ne igra bitna ulogu. U zbilji, međutim, pod utjecajem "znanstvenih istina" pojedinac se može svesti na statistički

⁹ Paternalistički model je najkontroverzniji i najstariji, ali i najčešći, iako ne i najbolji model komunikacije između liječnika i pacijenta koji često nazivaju autoritarnim modelom. Liječnik po tom modelu: sam odlučuje što je za pacijenta najbolje, sam odlučuje o provođenju medicinskih pretraga i testova, o invazivnim ispitivanjima i o najprimjerenijem liječenju, daje pacijentu samo strogo ograničene informacije za koje prosudi da će pacijenta ohrabriti tijekom liječenja te da će pacijent u pravilu pristati na predloženi način liječenja. Sve nabrojeno smatra se uspjehom liječnika. Paternalistički model predviđa da se pacijent s opisanom liječničkom ulogom slaže jer misli da samo liječnik zna što je za njega najbolje. Iako je tu teško prihvatiti, taj koncept predviđa da pacijent pristaje i na liječnikovo namjerno skrivanje značajnih podataka, da je pacijent liječniku uvijek zahvalan za njegove postupke, iako se s njima ne bi suglasio ako bi u trenutku odlučivanja bio kvalitetnije upoznat s prirodom bolesti i namjerama liječnika, da se pacijent potpuno odriče vlastite autonomije, stajališta i odlučivanja te sve prepušta liječniku. U okviru paternalističkog modela liječnik je "otac" pacijentu. U toj ulozi liječnik će, prema vlastitim kriterijima, staviti na prvo mjesto ono što misli da je za pacijenta najveće dobro, makar bile njegove odluke u suprotnosti s mišljenjem pacijenta. Model implicitno predviđa da pacijent zbog svoje bolesti nije sposoban donijeti racionalne odluke o svom liječenju pa to umjesto njega čini liječnik. U konačnici, najbolji pacijent je šutljiv i poslušan pacijent koji prihvaća sve što liječnik učini, odnosno odustaje od svega onoga od čega odustane njegov liječnik, tj. pacijent se svodi na "pidžamu", što je čest slučaj u tradicionalnim društvima poput indijskog, u našim ruralnim područjima itd.

¹⁰ O modelima komunikacije liječnik-pacijent vidjeti u: Štifanić, M., (2003.), Ima li nade za kute i pidžame, *Uruga Pacijent danas* Rijeka, str. 82-91. i 114-125.

broj, što se može proizvoljno i neodgovorno tumačiti, pa i zloupotrijebiti. To može biti posljedica činjenice da je student za vrijeme studija medicine bro stroj koji je učio, a njegov profesor – stroj koji ga je poučavao. To omogućava iskrivljavanje slike zbilje koja time postaje znanstveno nebitna. Medicinska znanost zahtijeva od liječnika da postavi dijagnozu pacijentu, tj. da ga kategorizira. Ako, pak, liječnik ne želi samo kategorizirati pacijenta, nego ga istodobno i razumjeti kao ljudsko biće, suočava se sa sukobom dužnosti. Radi se o dva dijametralno suprotna i uzajamno isključiva gledišta:

- a) znanstvenog, odnosno statističkog viđenja pacijenta s jedne, te
- b) razumijevanja pacijenta kao konkretnog čovjeka s kojim treba voditi dobru komunikaciju, s druge strane.

Taj se sukob ne može razriješiti odabirom jednog od tih stajališta, nego isključivo svojevrsnim dvosmjernim razmišljanjem, tj. činjenjem prvog uz istodobno uvažavanje drugoga. U biti, to je moguće postignuti u medicini usmjerenoj osobi. Dakle, i liječnik i pacijent su osobe. Liječnik kao osoba liječi i unapređuje zdravlje pacijenta, te u tom procesu sebe izgrađuje kao kompletnu ličnost s visokim etičkim standardima. To je temelj medicine usmjerene osobi. Na taj način može se promijeniti zastarjelo i neprihvatljivo gledište medicinske znanosti, odnosno liječnika, da je svaki pacijent kao pojedinac tek jedan, statistički i znanstveno, nebitan "slučaj". Problem je tim veći ako liječnik smatra da samo on treba postavljati pitanja pacijentu, a da pacijent na njih smije samo odgovarati s "da" ili "ne". Takvo viđenje sebe i pacijenta je danas najveća zapreka dobroj komunikaciji liječnika s pacijentom. Stoga je iznimno značajno razumijevanje pacijenta kao osobe, što vodi do shvaćanja da je samo pacijent kao pojedinac, bez obzira na sve znanstvene, tj. teoretske i statističke istine i/ili "istine", na kojima dio liječnika još uvijek nerijetko ustrajava, najbitniji i jedini stvaran predmet interesa dobrog i humanog liječnika te njegov suradnik u komunikaciji i procesu liječenja. Takav, personalizirani pristup pacijentu osigurava humanističko viđenje pacijenta te omogućava odabir najboljeg mogućeg liječenja, kvalitetne i učinkovite njege i potpore. To aktivira vjeru pacijenta u ozdravljenje i oporavak, što potiče i aktivira, za sada znanstveno nepoznate, unutrašnje mehanizme aktivacije koji "kontroliraju" genski sustav i njegov sadržaj¹¹ i nerijetko odlučujuće utječu na uspješan ishod liječenja. Nasuprot tome nehumani odnos, uključujući neljubaznost i grubost i sl., mogu biti zapreka dobroj komunikaciji te utjecati na gubitak volje za liječenjem, pa i potaknuti želju za umiranjem i smrću. Dakle, dobar liječnik trebao bi biti svjestan proturječja da, s jedne strane, barata znanstvenim i statističkim istinama, dok je s druge strane suočen sa zadaćom da dobro komunicira s konkretnim pacijentom u funkciji liječenja konkretne bolesne osobe koja iziskuje pojedinačno razumijevanje. Nadalje, liječnik treba znati da što je liječenje "znanstvenije" i "statističnije" tim više može biti strano i hladno te izaziva otpor kod pacijenta, što posljedično otežava komunikaciju s pacijentom i suradnje u procesu (iz)lječenja.

¹¹ Ostojić, S.: u: Štifanić, M., (2006.), Dobar liječnik, Adamić d.o.o., Rijeka,

Pacijent sluša liječnika s četiri "uha"

Friedmannn Schulz von Thun upozorava da pacijent sluša liječnika s "četiri uha"¹². Prvo je usmjereno na osobnost liječnika s kojim razgovara te ga zanima o kakvoj se osobi radi. Drugo je usmjereno na sadržaj razgovora, tj. pacijent želi čuti i razumjeti o čemu liječnik govori, tj. o kojem i kakvom načinu liječenja, pretragama i sl. Treće je usmjereno na odnos liječnika prema pacijentu, tj. na koji način liječnik razgovara s pacijentom te kako se prema njemu ponaša. Četvrto "uho" je usmjereno na značenje i utjecaj poruke liječnika te pri tome pacijent razmišlja kako reagirati, što mu je činiti te kako se ubuduće ponašati. Pacijenti su nerijetko svjesni samo drugog "uha", a prihvatanje ili odbijanje liječnikovih prijedloga ovisi od onoga što je pacijent čuo prvim, trećim i četvrtim "uhom". Liječnik, međutim, nerijetko nije svjestan da ima sve više "novih pacijenata"¹³ koji ga slušaju sa sva četiri "uha", te da osim o sadržaju razgovora, mora voditi računa i o sebi, svojem odnosu prema pacijentu te o svojem utjecaju na pacijenta, što se može precijeniti ili potcijeniti. Dakle, dobar liječnik mora promatrati pacijenta kao jedinstvenu osobu te sukladno toj temeljnoj činjenici treba prilagoditi komunikaciju i metode liječenja. Uvijek su bitne dvije stvari: a) prepoznati potrebe i želje pacijenta što omogućava individualizirani pristup pacijentu, te b) odabrati najprimjereniji model razgovora, odnosno komunikacije s pacijentom. Na taj način liječnik neće negirati znanstvene činjenice, nego će ih obogatiti humanističkim pristupom pacijentu, a dobra komunikacija omogućit će najkvalitetnije liječenje pacijenta koji neće biti sveden na statistički već viđenu, apstraktnu bolest. Nakon dobre komunikacije u kojoj liječnik i pacijent jedan drugog slušaju, razmišljaju, govore i objašnjavaju jedan drugome, oni su drukčiji jer utječu jedan na drugoga, te su informiraniji i sigurniji. U biti, svrha komunikacije je uspostavljanje povjerenja, a to je preduvjet uspješne suradnje u procesu liječenja.

Dobra komunikacija s pacijentom od posebnog je značenja pred kraj života¹⁴, jer ona utječe na pacijentovo razmišljanje i ponašanje. Tada liječnik može primijetiti brigu bolesne osobe da ne optereti previše osobe koje ju okružuju, jer bi se oni mogli uplašiti njenog stanja. Ovo upućuje zdravstvene djelatnike da se, koliko god ih bolesnici opteretili svojim životno važnim problemima, nikada ne smiju uplašiti njihova stanja, te iako je bol drugoga teško, gotovo nemoguće razumjeti, uvijek se moraju truditi razumjeti pacijente što je više moguće. Bolesnim osobama pred kraj života potrebno je svo strpljenje i razumijevanje koje im mogu pružiti zdravstveni djelatnici jer uz zdravstvenu skrb to im je najbitniji dio odnosa. Nadalje, svjedočenja pacijenata svojim životom uče liječnika da se bolesnici, bila djeca ili odrasli, najviše boje usamljenosti te da im je ona često teža i od boli, posebice ako se prema njima odnosi kao da su statistički i znanstveno tek jedan - "slučaj". Zato, osim što pacijenta vide kao osobu kojoj moraju umanjiti bol i patnju, moraju ga gledati i kao konkretnu i jedinstvenu osobu kojoj je bitno razumijevanje i podrška liječnika, medicinske sestre i drugih djelatnika.

¹² Von Thun, Friedemann Schulz, (2006.), *Međusobno razgovarati: smetnje i razjašnjenja*, Erudita, Zagreb

¹³ Štifanić, M., (2006.), *Dobar liječnik*, Adamić d.o.o., Rijeka

¹⁴ Štifanić, M., (2009.), *Umiranje, smrt i žalovanje*, Adamić, Rijeka

Loša komunikacija s pacijentom

Primjer loše komunikacije br.1.:

"Tešku dijagnozu su nam, nažalost, liječnici priopćili pred našim djetetom. U tom trenutku naš sin nije gledao u njih, nego u nas i našu reakciju. Mi smo se slamali, a on je počeo vrištati. Ne mogu više nabrojiti koliko su nam puta rekli da je naš sin "gotov", da "neće dugo", da više neće stati na noge, neka se pripremimo na najgore. Nisu birali vrijeme ni mjesto, govorili su to i pred njim jer su proglasili stanje kome pa ih navodno nije mogao čuti. Govorili su to i pred drugom oboljelim djecom kojoj je to sigurno bilo strašno čuti"¹⁵.

Primjer loše komunikacije br.2.:

Tijekom posjeta dežurni liječnik pokušao nam je dati objašnjenje i potrebne informacije, a što je i bila naša želja. No umjesto razgovora u privatnosti o stanju pacijenta, razmjena informacija se odvila tik uz krevet bolesnika (dide) koji je ujedno bio svjestan svih liječnikovih izjava tipa: *"On vam je gotov. Ovo stanje je mučenje i trošak bez potrebe! Jedino pametno je potpisati da se skine s aparata za održavanje života!"*. Nakon što je čuo riječi liječnika dida je bio jako potresen, pa je čak i zaplakao.

Unuka.

Liječnik koji vjeruje stereotipu o iznimnom ugledu liječnika u društvu te nastoji sačuvati "mitsko" značenje sebe, kao liječnika paternalističke kulture kakav je dominirao prije pedeset ili stotinu godina (iza čega se mogao skrivati neprofesionalizam, pa i nemoralnost i nehumanost), može se plašiti voditi dijalog i razvijati otvoreni razgovor s pacijentom zbog neracionalnog i nesvjesnog straha da u takvoj komunikaciji otkrije "drukčijeg" sebe. Stoga on komunicira onako kako se "od njega kao liječnika očekuje"¹⁶. U zbilji to može značiti da se, najčešće bezvoljno, *spušta* na razinu pacijenta jer ne uspijeva mijenjati sebe i svoju komunikaciju, te s voljom *podignuti* se na razinu pacijenata¹⁷. To je nerijetka i velika zapreka dobroj komunikaciji. Sljedeća vrsta straha od ravnopravne i otvorene komunikacije s pacijentom može biti u poistovjećivanju pacijenta koji je sada pred liječnikom s prijašnjim pacijentom/ima. Radi se o stereotipu i/ili predrasudama što uvjetuje strah od mogućih posljedica zbog neposredne, otvorene i iskrene komunikacije s pacijentom. Razlog za lošu komunikaciju može biti i strah liječnika da će zbog iskrene, neposredne i otvorene ko-

¹⁵ Martinović, Lj. B., (2011.), Najteži križ roditelja otežan bešćutnošću liječnika, Novi list, Rijeka, 18. 11. 2011.

¹⁶ Neki pritom izgube *kompas*.

¹⁷ Štifanić, M., (2006.), Dobar liječnik, Adamić d.o.o., Rijeka,

munikacije raditi protiv sebe i ugroziti svoju poziciju te u pacijentu dobiti umišljenog ili realnog protivnika, ili čak tužitelja. Stoga zaključuje da je (naj)bolje ostati na pristojnoj i dopuštenoj udaljenosti, koristeći birokratski hladan profesionalni jezik koji pacijent ne razumije i ne shvaća te ne postavlja pitanja, niti traži odgovore i objašnjenja, a liječnik se za to ne smatra krivcem¹⁸.

Liječnik loše komunicira i kada mora, a ne želi razgovarati s pacijentom te mu ništa ne objašnjava, nego mu, primjerice, kaže da će "sve pisati u otpusnom pismu". Dalje, liječnik može govoriti bez slušanja pacijenta, bez reagiranja i bez objašnjavanja pacijentovih pitanja i dvojbi. Dakle, kada liječnik govori, ali ne razgovara, cilj mu je razgovor - izbjeći¹⁹. Također, liječnik jednosmjerno i jednostrano razgovara kada naređuje, ali ne objašnjava, dijeli savjete ali ne objašnjava kako ih provesti. To je razgovor jačeg sa slabijim, iskusnijeg s manje iskusnim, pametnijeg s manje pametnim, tj. s glupim, s namjerom da se te pozicije zacementiraju i ne promjene, da ostanu fiksirane²⁰. U biti, liječnik se tada spušta na razinu pacijenta i loše komunicira s njim. Nadalje, liječnik slabo komunicira kada površno, neobavezno i neplanirano govori. Pacijentu se čini da je s takvim liječnikom lijepo razgovarati, ali od toga nerijetko, ili nikada, nema nikakve koristi, a može biti mnogo štete.

Loša komunikacija je i hladno te puko prenošenje informacija i zaključaka. U njoj liječnik i pacijent samo formalno jedan drugoga slušaju, ali se – ne čuju. Oni samo formalno zajedno grade dobru komunikaciju utemeljenu na povjerenju i suradnji, a u biti je – ruše. Liječnik i pacijent se u takvom, lošem modelu komunikacije štite oklopom vlastitih misli te predrasudama i stereotipima kojih se ustrajno drže. Liječniku je cilj "skupljati bodove" i nametati svoje stajalište pacijentu koji je u dvostruko podređenom položaju. Liječnik ili ne zna komunicirati, ili pak ima određeni materijalni cilj, a ne dobrobit pacijenta i čuvanje ugleda struke, klinike i/ili bolnice, pa niti sebe. Takav liječnik je zarobljenik svojih egoističkih interesa. Cilj loše komunikacije može biti ucjenjivati pacijenta "apsolutnim" istinama te držati zatvorenim vlastito mišljenje i ne dopuštati njegovo provjeravanje, niti čuti stajališta, mišljenja i želje pacijenta, a na takav eventualni pokušaj ismijava ga se²¹, optužuje i lažno moralizira. To ga čini neodgovornim. Takva komunikacija nije iskrena i usklađena te po-

¹⁸ Neke liječnike pacijenti "upoznaju" samo preko otpusnog pisma.

¹⁹ Brajša, P., (2011.), *Abeceda demokracije* dr Pavla Brajše, Glas Koncila, br. 47/20.11.2011.; br. 48./27.11.2011.; br. 49/4.12.2011.; br. 50/11.12.2011.; br. 51/18.12.2011.; br. 52-53/ Božić, 2011.; br. 1/8.1.2012.; br. 2/15.1.2012; br. 4/29.1.2012., Zagreb

²⁰ Brajša, P., Ibid.

²¹ "Pohađao sam nastavu iz Urologije. Liječnik (profesor) nas (sedmoricu studenata) je odveo u sobu... u kojoj je ležalo šest pacijentica... jednoj je trebalo uvesti urinarni kateter. Bez previše objašnjavanja liječnik je otkrio pacijenticu i rekao joj da skine donje rublje. Međutim, pacijentica je odbila poslušati liječnika jer je, kako je navela, imala menstruaciju i bilo joj je neugodno skinuti se pred studentima, u sobi bez paravana koji bi joj dao imalo privatnosti pred drugim pacijenticama. Na to ju je liječnik počeo ismijavati, komentirajući da je menstruacija prirodna i fiziološka pojava. Primorana, pacijentica je ipak skinula donje rublje nakon čega je liječnik rekao kolegici studentici neka nastavi dalje. Dok ju je kolegica pripremala za uvođenje katetera, pacijentica je počela plakati. To je liječniku bio dodatni razlog da nastavi ismijavati pacijenticu i njezinu reakciju. Kolege i ja smo se šutke gledali znajući da ne možemo učiniti ništa..." (Više u: Brozović, B.: *Prava pacijenata-mit ili stvarnost?* (prikaz slučaja), Program i sažeci za 9. Bioetički okrugli stol, , str. 26-29, Rijeka, 15. i 16. svibnja 2088. godine).

zitivno usmjerena i korisna. Ona nije jasna, razumljiva i dorečena jer nema stalnog davanja i traženja obavijesti i objašnjenja podataka, odnosno stanja zdravlja pacijenta u pozitivnom ozračju i s dobrim namjerama. Tada mogu dominirati nedorečenosti, nejasnoće i sumnje. Nerijetko je jedini izlaz da se pacijent mora složiti s mišljenjem, stajalištem ili prijedlozima liječnika. U biti, to umanjuje ugled liječnika i smanjuje mogućnost postizanja uspjeha u procesu liječenja pacijenta. U lošoj komunikaciji liječnik se ne služi obrazlaganjem i opisivanjem stanja u procesu liječenja, kao da se ne radi o liječnikovoj obvezi da pacijenta detaljno upozna s, primjerice, načinom izvođenja operativnog zahvata te da ga psihički pripremi za zahvat. Kada samo liječnik postavlja pitanja, a ne i pacijent, nema mogućnosti za alternativna rješenja, već se postupa po modelu: ili-ili! U njoj se ne sluša pacijenta, njegova razmišljanja, riječi i htijenja, a kada mu se liječnik i ispriča, to je ona vrsta isprike kada liječniku nije žao zbog onog što je učinio pacijentu. Pacijentu se ne omogućava iznošenje stajališta, postavljanje pitanja, tek se formalno traži potpisivanje formulara suglasnosti čak i za operaciju i/ili metodu liječenja koji zahtijevaju da pacijent bude dovoljno obaviješten o vrsti, tijeku, rizicima i svrsi zahvata da bi se mogao odlučiti prihvatiti ga ili odbiti²².

Politika treba servisirati zdravstvo, a ne vladati zdravstvom

Nema dvojbe da liječnik nerijetko ne zna kako se osjeća pacijent koji je sada pred njim, niti može sa sigurnošću procijeniti kako se osjeća te kako će reagirati u procesu liječenja, dok s njim ne razgovara, bez obzira koliko je pacijenata do sada pregledao i/ili operirao. Suprotno, nerealno je i štetno biti (samo)uvjeren u svoje znanje i sposobnost u procjeni fizičke i psihičke dimenzije stanja zdravlja (tijela i duše) pacijenta na temelju već "tisuće" obavljenih pregleda i operacija, viđenih izraza lica, i na temelju toga donositi sudove i odluke bez prethodne dobre odnosno kvalitetne komunikacije prilagođene konkretnom pacijentu. Nadalje, nema dvojbe da je običan, a ne dobar liječnik²³ onaj koji ne shvaća da je komunikacija *alfa i omega* odnosa između liječnika i pacijenta, a bolnica u kojoj se tako postupa proizvodit će gubitke: moralne, društvene, financijske i – ljudske. U biti, to omogućava politiziranost hrvatskog javnog zdravstva u kojem je najbitnije biti podoban, a ne sposoban i odan pacijentu, odnosno kvaliteti njegova liječenja i oporavka. U takvom sustavu mnogo puta donose se zakoni mimo faktora *čovjek*²⁴. To je posljedica vladanja liječnika političara javnim zdravstvom. U zbilji, relativizira se problem nedovoljnog broja liječnika te medicinskih sestara, ograničava njihova profesionalna autonomija i relativizira nepoštovanje standarda struke, humanosti, morala i etike. Opsjednutost brigom za osobne egoističke interese i privilegije, čini ih površnim i neosjetljivim za potrebe pacijenata, a njihovo nezadovoljstvo, ljutnju i bijes usmjeravaju na inače dobre liječ-

²² Odluka Ustavnog suda RH, broj: U-III-3002/2005, od 21. studenog 2007., Zagreb

²³ Buckman, R., (1999.), Ne znam što reći, Školska knjiga, Zagreb

²⁴ Posenjak-Pavišić, S., u: Štifanić, M., (2010.), Kriza zdravstva: prijetnje i mogućnosti. Zdravlje postaje roba koju bogati kupuju, a siromašni umiru, Hrvatski pokret za prava pacijenata, Rijeka

nike i medicinske sestre koji mogu postati i mete njihova verbalnog ili fizičkog napada! Rejting tih liječnika političara, ali i inače dobrih i humanih liječnika koji se mire s takvom pozicijom i njoj prilagođavaju komunikaciju s pacijentom, pa i standarde struke i etike, koristeći rječnik bonitetnih kuća, primjerice Standard & Poors, opisuje se ocjenom – smeće (trash)²⁵.

Kvalitetna komunikacija je sve poželjnija, a sve manje vjerojatna?

Osoba koja traži pomoć od liječnika nerijetko je bitno drukčija nego što je liječnik zamišlja. Ponekad se liječnici susreću s osobama koje su uvjerene u neograničenu moć i sposobnost liječnika, što proizlazi iz utjecaja medija, pa zahtijevaju nemoguće. Dalje, liječnici su nerijetko prisiljeni komunicirati s osobama koje se osjećaju nezadovoljnima svojom obitelji, društvom, susjedstvom, sustavom zdravstva i sl., te pre više očekuju od pomoći liječnika. Na liječniku se lome nadanja, ogorčenja i muke ljudskih patnji, a on je pozvan služiti čovjeku u njegovoj bolesti, patnji, strahu i boli. Današnji liječnik primoran je brinuti se i boriti protiv teškoća, bolesti i prijetnje smrti u društvu u kojem vlada dvoličnost, ciničnost, nemoral, nered, dvostruki moral, veze i poznanstva, a u javnom zdravstvu oskudica kvalitetne i sofisticirane opreme, uređaja i sredstava, pa i lijekova, te siromaštvo, nepravda i dr. Naime, ekspanzija materijalističkog društva pridonosi činjenici da kvalitetna komunikacija postaje sve više poželjna, a sve manje vjerojatna. Osim toga, u modernom društvu se sve manje komunicira. Čovjek postaje *homo videns*²⁶, okružen sredstvima masovne komunikacije: novinama, TV-om, filmovima, radiom, kompjutorima, videoigrama, satelitima. Netko je primijetio kako ti sve te stvari nešto govore, a ti njima ne možeš ništa reći. Nema, naime, dvosmjerne komunikacije, a ona je jedina dobra društvena komunikacija. Ljudi se na pragu 21. stoljeća sve više osamljuju i taj trend se čini nezaustavljiv. Ekran je novi oltar dvadeset prvog stoljeća koji utječe na promjenu odnosa u obitelji, susjedstvu, ali i na komunikaciju između liječnika i pacijenta²⁷. Nema dvojbe da se od liječnika očekuje da mnogo više vremena posveti pacijentovim psihosocijalnim potrebama²⁸. To bi poboljšalo položaj liječnika u struci te u društvu u kojem se iznad njihova ugleda nadvila sumnja²⁹. Međutim, iako je to sve poželjnije, u zbilji je sve manje vjerojatno.

²⁵ Takvu ocjenu dali bi i studenti, kada bi ih netko pitao, a to potvrđuje njihovo viđenje "hijerarhije" u KBC-u Rijeka (vidjeti referencu broj 7)

²⁶ Chiesa, G., (2003.), Spara un po' per favore, se no che dico stasera?, Rocca, Asissi, 15.2.2003. str.37.

²⁷ Turner, B.S. (1995.), Medical power and Social Knowledge, Secodn Edition, Sage, London

²⁸ Carlos, A.R. & Aruguete, M.S., (2002), Task and socioemotional behaviors of physicians: a test of reciprocity and asocial interaction theories in analogue physicians – patient encounters, Social Science and Medicine 50 (2000.), pp. 309 – 315

²⁹ Lorencin-Petrović, V., (2002), Obavezna i neobavezna komunikacija u PZZ, Zbornik Hrvatskih dana primarne zdravstvene zaštite, Labin, 2002.

Bez sumnje, komunikacija s osobom koja traži pomoć bila bi mnogo ugodnija kad bi liječnici učili tehnike i modele komuniciranja s pacijentima³⁰ te kada bi shvaćali njezino iznimno značenje, što neki razumiju tek kada osobno postanu pacijenti³¹. Dobrom edukacijom sprečavaju se pogreške i/ili posljedice pogreške. Zbog toga je, uz ostalo, nužno definirati i držati se Protokola priopćavanja loših vijesti³².

Drugim riječima, liječnik u svojem djelovanju mora primjenjivati svrhovito-racionalno, stručno ili jednostavno tehničko-mehaničko djelovanje, ali i komunikaciju koja često pokazuje onaj širi suodnos u kojem su razumljivi postupci i sudovi nekog čovjeka i njegova djelatnost³³. Danas, međutim, na mnogim razinama društva postoji manjak vremena i nastojanje da se osobu koja istovremeno i jest i nije bolesnik, tretira kao bolesnika, a ne kao osobu kojoj je potrebna pomoć. Zbog toga liječnici imaju prednost ako osobu s određenim problemom ne shvaćaju samo kao još jednu zanimljivost, još jedan slučaj ili izvor zarade jer im etika nalaže da se pojedinačnog pacijenta tretira kao beskrajno važnog – drukčije od prirode koja ponekad postupi okrutno poigravajući se³⁴.

Poštovati objektivni interes pacijenta ili liječnikovu ulogu vrhovnog arbitra?

Koncept obaviještenog pristanka (informed consent, consenso informato) podrazumijeva da samo dobra komunikacija vodi k poštovanju autonomije pacijenta. Usprkos tome, neki liječnici smatraju da ne treba poštovati objektivni interes pacijenta za njegovo zdravlje s obzirom na njegovo psihičko stanje i stručnu nekompetentnost općenito, a posebice u izvanrednim, hitnim, ali i ostalim okolnostima. Nastoji se tako legalizirati pozicija u kojoj će liječnik odabrati onaj model komunikacije koji mu omogućava preuzimanje odlučujuće uloge vrhovnog arbitra u pitanjima zdravlja i bolesti, jer je on navodno jedini sposoban odlučivati u okolnostima kada pacijent zbog bolesti, djelomično ili u cjelini, nema sposobnost rasuđivati i nije sposoban zastupati svoj objektivni interes, zato što je u posebnom psihičkom stanju (što nekada može biti činjenica, ali nerijetko i ne mora). Radi se, zapravo, o obnovljenom za-

³⁰ Vreg, F., (1998.), *Humana komunikologija*, Hrvatsko komunikološko društvo, Zagreb

³¹ Cornaglia-Ferraris, P., (2000.), *Camici e pigiami*, Editori Laterza&Figli Spa, Roma – Bari

³² Protokol priopćavanja loših vijesti sastoji se od šest koraka, smatra **Marta Benko**. Prvo, liječnik treba osigurati privatnost i neometanje tijekom razgovora, omogućiti prisutnost bliske osobe, te raditi na kvaliteti odnosa s pacijentom i njegovom obitelji. Zatim, treba istražiti koliko bližnji razumiju nalaze, što za njih znači ova dijagnoza, imaju li nerealistična očekivanja te na obazriv način korigirati takva očekivanja. Najteže informacije o prognozi izliječenja treba dati tek onda kad iskažu spremnost da čuju tu vrstu informacija, a ako na to nisu spremni, treba je priopćiti naknadno – tumači **Marta Benko**, specijalistica kliničke psihologije Neuro-psihologijskog rehabilitacijskog centra u Klinici za dječje bolesti Zagreb. Osim toga, kaže, važno je da se roditeljima na razumljiv način objasne medicinski pojmovi, da liječnik pri tome bude obziran, dozira informacije i pokaže suosjećanje. (Lj.B.Martinović: Najteži križ roditelja otežan besćutnošću liječnika, *Novi list*, Rijeka, 18.11.2011.)

³³ Uslar, Von D., (1999.), *Psihologija i svijet*, Matica hrvatska, Zagreb

³⁴ Nitsche, F., (1999.), *O istini i laži u izvanmoralnom smislu*, Matica hrvatska, Zagreb

htjevu zagovornika klasične *paternalističke medicine* da se pacijentu zbog njegove navodne "laičnosti" i "posebnog duševnog stanja zbog bolesti" odriče mogućnost odlučivanja. Međutim, danas je upitno zagovarati tezu da se pacijent u ime maksime očuvanja života i zdravlja mora potpuno pokoriti liječniku i to bez obzira na okolnosti ili moguće posljedice. Isto tako, sasvim je jasno da različiti pacijenti, kao i zdravi ljudi, imaju posve različite predodžbe o tome što je za njih dobro, a što je loše, tim više što je danas nemoguće posve točno označiti pojam zdravlja isključivo u medicinskim kategorijama. Naime, definicija SZO-a definira zdravlje ne samo kao biomedicinsko stanje, odnosno odsutnost bolesti, nego kao fizičko, psihičko i društveno blagostanje osobe. Isto vrijedi i za objašnjenje pojma "dobro", odnosno "loše", što se ne može definirati samo medicinski, nego i društveno, humanistički i etički. Isto vrijedi i za dobru komunikaciju, koja se ne smije svesti ni samo na posredovanje rezultata pretraga, niti samo na predlaganje metoda liječenja.

Što reći?

Tijekom razvoja medicine mijenjala se i komunikacija između liječnika i pacijenta. Paternalistički model je onaj koji je izazvao brojne i različite kritike komunikacije između liječnika i pacijenta. Upravo na temelju kritika toga modela počeli su se razvijati drugi modeli. Okolnosti u realnom životu nekad su takve da se nije moguće osloniti samo na jedan model. U praksi se u različitim okolnostima susrećemo s različitim modelima komunikacije. Ipak, jedini model koji se po svojoj biti uklapa u koncept autonomije pacijenta je savjetodavni model³⁵.

U realnom životu, međutim, susrećemo se s različitim modelima komunikacije liječnik – pacijent. Na to utječu brojne znanstvene spoznaje i otkrića što omogućava tehnološki napredak medicine i učinkovitije metode liječenja te visoki postotak uspješnosti medicinske prakse. Međutim, postoji i druga, negativna strana medalje, a to je vjerovanje u samodostatno mehaničko vladanje pacijentom³⁶. S druge, pak, strane ostvarivanje zbog cilja koji se naziva sve veći tehnološki napredak medicine nastoji se opravdati pogreške koje su *cijena* koju netko mora platiti. Pogreška se, naime, smatra doprinosom koju *plaćaju* pacijenti na kojima se ona dogodila, jer će to tobože pridonijeti većoj efikasnosti terapijskih i kirurških procedura te sigurnosti budućih pacijenata.

Danas je nedvojbeno da komunikacija ne smije biti samo improvizirani i/ili spontani oblik društvene komunikacije, već mora biti dobro definiran i kvalitetno vođen susret s jasnim ciljem koji će ne samo dopuštati, nego stimulirati kvalitetnu komunikaciju, što će pomoći liječniku u postavljanju dijagnoze i utjecati na pacijentovo ponašanje te omogućiti njihovu suradnju u procesu liječenja.

³⁵ O tome vidjeti u: Štifanić, M., (2003.), Ima li nade za kute i pidžame, Udruga Pacijent danas, Rijeka, str. 87-90.

³⁶ Gianni Vattino, (2008.), Transparentno društvo, Algoritam, Zagreb, str. 29.

To ukazuje na potrebu da se njihovi međusobni odnosi urede, ali ne tako da svaka strana definira svoju ulogu neovisno o drugoj jer na taj način njihov susret, odnosno komunikacija, može ovisiti o slučajnosti što neće osigurati očekivane i kvalitetne rezultate, značajne za oba partnera. I konačno, ako nešto treba biti sveto sada i ovdje, to je komunikacija liječnik – pacijent te personalizirani pristup pacijentu kao osobi, jer se na tome temelje svi uspjesi i neuspjesi u suvremenoj medicini.

Loša komunikacija kao razlog podnošenja sudske tužbe

U Hrvatskoj, nažalost, ima vrlo malo istraživanja, odnosno podataka o posljedicama loše komunikacije između liječnika i pacijenta³⁷. No primjerice, nedavno istraživanje u Japanu³⁸ pokazuje da je loša komunikacija i percepcija komunikacije od strane pacijenta razlog za povećanje broja sudskih tužbi, odnosno da je u oko 25% sudskih tužbi glavni razlog bila loša komunikacija, a u 13% slučajeva su razlog bile krive informacije i tehničke pogreške.

Do sličnih zaključaka došlo je i jedno englesko istraživanje o nesavjesnosti u zdravstvu³⁹, prema kojem su distanciranost liječnika i loša, odnosno neuspješna komunikacija s pacijentom česti uzroci koji motiviraju žrtvu da tuži zdravstvenog djelatnika. Pri tome se ističe da trećina pacijenata ne bi podigla tužbu da su primili ispriku, ili barem objašnjenje o onome što se dogodilo⁴⁰. Rezultati tog istraživanja upućuju na zaključak da pacijenti podižu tužbu ne samo da bi dobili naknadu za pretrpljenu štetu, već zbog želje da dokažu istinu o onome što se dogodilo te da bi drugi pacijenti izbjegli biti žrtve iste pogreške.

Posljedice pogreške

Prema izvješću *Griješiti je ljudski: gradi sigurni zdravstveni sustav*, američkog medicinskog instituta (IoM), u SAD-a svake godine preko 1,000.000 ljudi trpi posljedice nastale zbog krive medicinske skrbi zdravstvenih ustanova, a između 44.000 i 98.000 osoba umire zbog medicinskih pogrešaka⁴¹, dok troškovi koji opterećuju porazne obveznike iznose 37,6 milijarde dolara⁴². U SAD-u, fenomen štete od medi-

³⁷ Knjiga koja upozorava da ima loše komunikacije, ali i na posljedice iste je: Štifanić, M., (2011.), Pritužbe pacijenata. Kako do pravde? Hrvatski pokret za prava pacijenata, Rijeka

³⁸ Aoki, N., Uda, K., Ohta, S., i dr.: (2008.), Impact of miscommunication in medical dispute cases in Japan, International Journal for quality in Health Care, 20, 5: 358-362.

³⁹ Vincent, C, Young, M., Phillips, A., (1994.), Why do people sue doctors? A study of patients and relatives taking legal action, Lancet, 243, 1609-1617.

⁴⁰ Slučaj Maškarin to, implicite ili eksplicite, potvrđuje. Naime, oštećeni Miroslav više je puta rekao da mu nikada liječnik nije rekao što se u biti dogodilo, niti mu se ispričao, a u Dnevniku RTL-a (26. ožujka 2012. godine) rekao je: "U bolnici te pretvore u invalida, a onda te puste da ideš sam".

⁴¹ Introna, F., (2002.), Responsabilita' professionale, Jura Medica, 2002., 2 (XV): 335-338, Colosseum, Roma

⁴² Kohn, T., Corrigan J.M., Donaldson M.S., (2000.): To err is human: building a safer health system, Washington, DC, National Academy Press

cinske pogreške je danas postalo veliki problem. Naime, studija provedena 2005. godine od strane Commonwealth Found⁴³ pokazuje da jedan od tri pacijenta ima posljedice zbog liječničkih pogrešaka u rasponu od krivog propisivanja lijekova, pa do neprimjerenog liječenja. U Sjedinjenim Američkim Državama ukupna odšteta koju su platile osiguravajuće tvrtke zbog liječničkih odgovornosti dosegla je 24,5 milijardi dolara u 2002. godini, s povećanjem od oko 230 % u odnosu na 1992. Tada je to iznosilo 10,5 milijardi dolara i 420 % više ako se uspoređuje s 1982. godinom, kada je iznos bio 5,8 milijardi dolara. Procjenjuje se da je u SAD-u broj tužbi protiv liječnika u razdoblju između 1978. i 2006. godine porastao za 1.200 %. Bernard Lown ističe da je samo 1,1% hospitaliziranih bolesnika za vrijeme boravka u bolnici prijavilo štetu zbog liječničkih pogrešaka, te da u odnosu na 30 milijuna hospitalizacija godišnje to iznosi oko 800 slučajeva nemara dnevno, ukupno 300.000 godišnje⁴⁴. Isti autor citira jedno istraživanje provedeno na Harvardu, prema kojem se samo vrlo mali broj pacijenata (1,53%) koji su pretrpjeli štetu zbog nesavjesnosti liječnika, obraća sudu, te da su u SAD-a slučajevi nesavjesnosti osam puta brojniji od broja zahtjeva za obeštećenje, iz čega se zaključuje da je očito da pacijenti nisu neprijateljski raspoloženi prema liječnicima, nego da su liječnici ti koji potcjenjuju stvarnu veličinu problema te svakog pacijenta smatraju potencijalnim sudskim slučajem. U spomenutom istraživanju zaključuje se da sudske parnice rijetko mogu nadoknaditi nemar liječnika i da rijetko identificiraju krivca za krivo liječenje, te da je vjerojatnost da američki liječnik bude tužen zbog nemara 1:50. Istraživanje u Velikoj Britaniji⁴⁵, temeljeno na uvidu u medicinsku dokumentaciju, pokazuje da je učestalost štete pacijentima tijekom liječenja u 10,8% slučajeva (od čega se u trećini slučajeva radi o teškoj invalidnosti i smrti) te da se 50% pogrešaka moglo izbjeći. U izvješću provedenom u Velikoj Britaniji u kojem se analiziraju medicinske aktivnosti u 169 javnih medicinskih ustanova, ističe se da je samo u dvije godine (2004. i 2005.) broj umrlih zbog pogreške liječnika bio oko 2.181. Državni ured za reviziju (National Audit Office), ustanova koja je zadužena za prikupljanje podataka u medicinskim ustanovama, ističe da se potcjenjuje značenje ovog problema. Alarmantne brojke je iznio i sir Liam Donaldson, direktor medicinskog ureda za Englesku (Medical Officer for England) u kontekstu kampanje WHO-a koja ima cilj povećanje čistoće u bolnicama. On tvrdi da je vjerojatnost umiranja u zdravstvenim ustanovama zapravo 33.000 puta veća od umiranja zbog prometne nesreće⁴⁶. Zabrinjavajući su podaci Ureda za nacionalnu statistiku (Office for National Statistics) prema kojima je zbog infekcije "Clostridium difficile" u britanskom bolnicama samo u 2005. godini umrlo 5.400 pacijenata⁴⁷.

⁴³ <http://www.ordinemediciroma.it/OMWeb/Files/Documenti/report.23-2-06def.pdf>

⁴⁴ Lown, B., (1997.), *L'arte perduta di guarire*, Milano, Garzanti

⁴⁵ National Audit Office Report HC 456, 2005.-2006., u: <http://www.health.nsw.gov.au/quality/pdf/nao.pdf>

⁴⁶ Harpwood, V., (2007.), *Medicine, Malpractice and Misapprehension*, Routhledge-Cavedish, UK, 2007.:38

⁴⁷ National Audit Office Report, 2005/06.: 456, str. 9.

Posebno su pogođeni mladi liječnici

U svih šest godina studija nitko nas nije podučavao kako komunicirati s pacijentom. Na praksi u bolnici nitko nam nije govorio kako komunicirati s pacijentom, niti nas je ispravljao prilikom uzimanja anamneze, a profesori su redovito isticali da je za postavljanje dijagnoze u 90% obimu važan razgovor i uzimanje anamneze od pacijenta".

M.G., studentica šeste godine opće medicine, 27. ožujka 2012. godine.

Sudski sporovi u Velikoj Britaniji protiv NHS-a su se više nego udvostručili od 1990. do 1998. godine iako je opseg zdravstvene skrbi povećan za oko 30%. Broj osuđujućih presuda znatno je niži u odnosu na tužbe koje podnose žrtve. Naime, jedna službena britanska procjena pokazala je da je u deset godina (između 1996. i 2006.) u 68% slučajeva sud presudio u korist NHS-a, odnosno nacionalnog zdravstvenog sustava⁴⁸. Čak se ni obiteljski liječnici ne mogu izuzeti od ovog fenomena. Naime, istraživanje provedeno na ukupno 278 slučajeva navodnih zloupotreba koje su se dogodile na Floridi između 1993. i 2003. godine⁴⁹ pokazalo je da se 54% odnosilo na stručnu osobu kojoj se u 16% pripisalo neprofesionalno ponašanje u kliničkim uvjetima. Tamo gdje je bila prijavljena pogrešna dijagnoza, odnosilo se to na neoplastične bolesti (40%), kardiovaskularne (22%), zarazne bolesti (17 %) i bolesti probavnog sustava (15%). Posebno su pogođeni mladi liječnici⁵⁰, protiv kojih su, na temelju analize 240 pogrešaka počinjenih između 1979. i 2001. godine, podignute sudske tužbe zbog krive dijagnoze (72% slučajeva) i tehničke nesposobnosti (58% slučajeva), kao i zato što su djelovali bez nadzora (70% slučajeva)⁵¹. Nakon serija autopsija utvrđeno je između 14% i 20% pogrešaka u dijagnozi te je zaključeno da bi se u gotovo pedeset posto slučajeva moglo započeti s odgovarajućom terapijom da je dijagnoza bila točna i da bi to povećalo vjerojatnost preživljavanja⁵². Slična izvješća dolaze iz Australije. Naime, u istraživanju provedenom na 14.179 povijesti bolesti utvrđeno je da su posljedice uzrokovane krivim liječenjem kod 18,6% pacijenata

⁴⁸ National Health Service Litigation Authority (NHS LA) (2006.): Report and Accounts, HC 1179, London: The Stationery Office, na: [http://www.nhs.uk/NR/rdonlyres/6BD84514-A58C-4685-85BF-31F608F90/0/NHSLA Annual Report Accounts 2006.pdf](http://www.nhs.uk/NR/rdonlyres/6BD84514-A58C-4685-85BF-31F608F90/0/NHSLA%20Annual%20Report%20Accounts%202006.pdf)

⁴⁹ Arca, N.C., Hardowar, L., Funderburk, M., i dr. (2009.), Identifying trends of medical error based on malpractice claims in an University Medical Education Program, Northeast Florida Medicine Journal, 2005., na: <http://www.dcmsonline.org>.

⁵⁰ "U svih šest godina studija nitko nas nije podučavao kako komunicirati s pacijentom. Na praksi u bolnici nitko nam nije govorio kako komunicirati s pacijentom, niti nas je ispravljao prilikom uzimanja anamneze, a profesori su redovito isticali da je za postavljanje dijagnoze u 90% obimu važan razgovor i uzimanje anamneze od pacijenta", rekla je M.G. studentica šeste godine opće medicine, 27. ožujka 2012. godine.

⁵¹ Singh, H., Thomas, E.J., Petersen L.A., (2007.): Medical Errors Involving Trainees. A Study of Closed Malpractice Claims From 5 Insurers, Arch. Intern. Med., 2007., 167 (10): 2030-2040

⁵² Kirh, W., Shafii, C., (1996.), Misdiagnosis at a university hospital in 4 medical eras: report on 400 cases, Medicine, 1996., 75: 29-40; Sonderegger I., i dr. (2000.), Diagnostic errors in three medical eras: a necropsy study, Lancet, 2000., 355: 2027-2031.

(invaliditet u 13,7% slučajeva i smrt u 4,9% slučajeva), a pogreške koje se moglo izbjeći utvrđene su kod 51% slučajeva⁵³. U 2001. godini australsko Vijeće za sigurnost i kvalitetu u zdravstvu u svom izvješću "Sigurnost u brojkama" istaknulo je da su u godini između 1997. i 1998. kliničke pogreške počinjene u bolnicama bile izravan uzrok smrti 177 Australaca i pridonijele su smrti najmanje 5.400 Australaca⁵⁴. Slični su podaci i iz SAD-a⁵⁵. Također su zabrinjavajući podaci iz EU. Naime, 10% hospitaliziranih Nijemaca prijavilo je liječničku pogrešku, a polovica su kvalificirane kao predvidive pogreške⁵⁶. Pogreške u medicini i liječničke pogreške problem su i u Italiji. Naime, prema Udruzi talijanskih anesteziologa one uzrokuju 14.000 smrti godišnje, dok drugi izvor (Assiform) tvrdi da se radi o 50.000 smrtnih ishoda te da oko 320.000 osoba ima trajne posljedice. U vezi s tim procjenama, Ministarstvo zdravstva Republike Italije⁵⁷ istaknulo je da od oko 8 milijuna hospitalizacija godišnje, učinjenu štetu ili bolesti uzrokovane pogreškama u terapiji ili lošu skrb u bolnicama trpi oko 320.000 pacijenata (4%), a umire njih oko 30.000 - 35.000 (6% u 2000. godini). Procjenjuje se da su ovi brojevi pokazatelji u stvarnosti zapravo mnogo veći jer većina analiza rađenih na tu temu ne uzima u obzir male pogreške, pogreške koje nisu prijavljene ili one koje nisu dovele do štete, što se ne evidentira u medicinskoj dokumentaciji.

Što je pogreška?

Unatoč tehnološkom razvoju medicine, stjecanju novih znanstvenih spoznaja, visokom postotku uspješnih sofisticiranih zahvata u medicinskoj praksi, usvajanju modernih i učinkovitih tehnika nadzora rizika i dr., sve je veća mogućnost pogrešaka u zdravstvu. S obzirom na to da je svrha ovog rada razumijevanje opsega i posljedica ovog fenomena, potrebno je utvrditi točno značenje izraza pogreška. Jedna britanska studija⁵⁸ pokazuje kako je nemoguće utvrditi realno povećanje broja medicinskih pogrešaka u Velikoj Britaniji, jer studije upotrebljavaju izraz liječnička pogreška dvosmisleno. Iz brojnih i različitih razloga, objektivnih i subjektivnih, teško je nedvojbeno prepoznati što je pogreška. Ona se često opisuje riječima poput komplikacija, posljedica, nesreća, nesavjesnost, nuspojava, nemar... Neki od ovih termina su neutralni, drugi uključuju već osudu liječnika ili drugog zdravstvenog djelatnika, a treći imaju cilj osloboditi liječnika odgovornosti za pogrešku. S tim u vezi mora se

⁵³ Wilson, R.M., i dr. (1995.), The quality in Australian health care study, Med. J. 1995.;163: 458-471.

⁵⁴ Gray, D., (2009.), Strict report rules on medical errors, na: <http://www.theage.com.au>

⁵⁵ Analiza medicinskih kartona 15.000 pacijenata (1992. godine u bolnicama u Coloradu i Utah) otkrila je da je 2,9% bolesnika grupe broj 1. (u dobi iznad šezdeset pet godina) i 1,6% bolesnika grupe broj 2. (u dobi između 16 i 64 godina) prijavilo posljedice zbog medicinskih pogrešaka. U oko 10% starijih bolesnika (grupa 1) i 4,6% onih mlađih (grupa 2) posljedica nemara bila je smrtonosna (vidjeti u: Thomas, E. J., 2000.), Incidence and types of adverse events and negligent care in Utah and Colorado, Med. Care, 2000., 38: 261-271.

⁵⁶ Schrappe, M., (2005.), Patientensicherheit und Risikomanagement, Med. Klein, 100; 478-485.

⁵⁷ Ministero della salute, Ministero della salute, (2006.), Risk Management in Sanita'. Il problema degli errori, Caleidoscopio Italiano, 1994.:4

⁵⁸ Harris D., i dr. (1984.), Compensation and Support for illness and injury, Oxford University Press, Oxford

naglasiti da u potvrđivanju pogreške zbog dijagnostičko-terapijske aktivnosti treba razlikovati štetu, odnosno posljedicu štete, nastalu na pacijentu, koja se ne može povezati s radom liječnika ili drugog zdravstvenog djelatnika jer je riječ o slučaju ili višoj sili (spontane komplikacije), od posljedice koja je slučajno povezana s liječničko-kirurškom aktivnošću, pri čemu samo onu koja se može predvidjeti i spriječiti treba pripisati profesionalnoj odgovornosti i definirati kao liječničku pogrešku. U literaturi se sada pojavljuje razlika između "pogreške", "greške" i "ozljede". Prvi termin označava neželjeni nedostatak plana, pa čak i pravilno planiranje, ali s pogrešnim izvršenjem zbog nedostataka pozornosti. Drugi termin označava krivi, tzv. akcijski plan u sklopu kojeg se primjenjuje krivo pravilo, ili se dogodi neuspjeh u provedbi, ili je pogrešno primijenjeno inače dobro odnosno ispravno pravilo. Treći termin poistovjećuje se s hotimičnim odstupanjima od ustaljene prakse ili pravila, sigurnosnih standarda ili standarda ponašanja koji se javljaju u nekim posebnim okolnostima kao što su, između ostalog, nepoštovanje kulture sigurnosti, u slučaju sukoba između uprave i osoblja, pa čak i nedostatka nadzora i kontrole, ili općeg nedostatka pravila odnosno standarda postupanja. Reason⁵⁹, stručnjak fenomena ljudske pogreške, predložio je razlikovanje sljedećih vrsta pogrešaka:

1. Latentne, tj. one koje su počinjene zbog nedostataka u sustavu u kojem se djelatnost obavlja.
2. Aktivne, tj. one koje su počinili djelatnici osobno, a klasificiraju se kao:
 - a) *slip* (pogreška zbog nepažnje)
 - b) *lapse* (pogreška zbog zaborava)
 - c) *mistake* i *violation* (pogreške koje su u skladu sa namjerama koje su ih uzrokovale).

U odnosu na kliničke faze u kojoj se događa, pogreška može biti:

3. dijagnostička
4. prognostička
5. preventivna
6. terapijska ili zbog
7. loše komunikacije⁶⁰.

Pogreške u dijagnozi, što rezultiraju netočnim ili kasnim otkrivanjem bolesti koju je pretrpio pacijent, mogu biti posljedica loše uzete anamneze, površnog kliničkog pregleda, neadekvatnog izbora vrste laboratorijskih ispitivanja ili netočne interpretacije i procjene podataka koji proizlaze iz tih testova.

Pogreške u prognozi i prevenciji su pogreške propusta koje se označavaju kao neuspjeh u poduzimanju mjera predostrožnosti i preventivnih mjera kao što su, primjerice, nedostatak ili neadekvatna primjena preventivnih mjera ili tretmana i dr.

⁵⁹ Reason, J., De Lval, M., (2001.), Human errors: models and management, BMJ, 320:768-770

⁶⁰ Introna, F., (2002.), Responsabilita' professionale, Jura Medica, 2002., 2 (XV): 335-338, Colosseum, Roma

Pogreške u terapiji su posljedica pogrešnog izbora metode liječenja ili operacije, a događaju se zbog neprimjerenog izbora lijekova, krivih doza propisanih lijekova ili primjene neodgovarajuće kirurške tehnike koja se koristi u određenom kirurškom tretmanu, ili zbog izostanka određenih neophodnih tretmana. Pogreške zbog loše komunikacije između liječnika i pacijenta nerijetko su temelj na kojem se mogu događati gotovo sve druge pogreške. Međutim, uzrok pogreške može biti i loša komunikacija između članova medicinskog tima. Posljedica loše komunikacije između liječnika i pacijenta je kršenje prava pacijenta na informaciju i autonomiju⁶¹, a posljedica loše komunikacije između članova medicinskog tima je loše međusobno razumijevanje i postupanje s mogućim negativnim učincima u procesu liječenja/zahvata i ishodu liječenja.

Vrste liječničkih pogrešaka

British Medical Journal (1998.) razlikuje dvije vrste pogrešaka: a) u medicini i b) liječničke pogreške⁶².

a) uzroci pogrešaka u medicini mogu biti:

- pretjerano opterećenje na radnom mjestu
- nedovoljan nadzor
- neprimjeren prostor u kojem se obavlja posao
- neadekvatna tehnika ili tehnologija
- loša, neadekvatna ili neprimjerena komunikacija između djelatnika
- nedovoljna stručnost ili iskustvo
- stresno radno okruženje (primjerice, zbog brzih prijelaza s rutinskih radnji na radnje koje zahtijevaju veću pažnju, znanje, vještine i sposobnosti liječnika)
- nove i/ili brze promjene u organizaciji rada
- žkonfliktni ciljevi (primjerice, između ekonomskih ograničenja i kliničke potrebe)
- korištenje sofisticiranih i složenih tehnika i tehnologija
- natjecanje dvaju ili više liječnika s ciljem dokazivanja vlastite superiornosti

b) uzroci liječničkih pogrešaka mogu biti:

- izostanak potrebne intervencije
- pogreške zbog nedostatka pažnje ili zbog nemara

⁶¹ O tome vidjeti u: Štifanić, M., Bošković, Z., (2007.), Prava pacijenata. Vodič za kulturu poznavanja i poštovanja prava pacijenata, Adamić, Rijeka

⁶² Reason, J. (1995.), Understanding adverse event: human factor, u: Vincent, C., (1995.), Clinical Risk Management, London: BMJ Publ. Group, 1995., 31 -54; Vincent, C., Taylor-Adams, S., Stanhope, N. (1998.), Framework for analyzing risk and safety in clinical medicine, BMJ, 1998; 316: 1154-1157.

- nepoštovanje odgovarajućih terapijskih ili dijagnostičkih postupaka
- nedostatak iskustva u dijagnostičkim ili terapijskim procedurama
- nedostatak znanja i vještina (primjerice, liječenje određenog pacijenta metodom inače dokazane djelotvornosti kod drugih pacijenata, ili nuspojave i/ili rizici u tijeku liječenja određenog pacijenta, ili zbog neuobičajenog kliničkog tijeka određene bolesti)
- nedovoljna klinička osposobljenost liječnika, u slučaju kada liječnik nije dovoljno obrazovan za dobru komunikaciju s pacijentom u cilju dobivanja podataka od pacijenta (povijest bolesti, fizikalni pregled, analiza laboratorijskih podataka ili rtg slika, i dr.)
- nesposobnost povezivanja novih nalaza i podataka o pacijentu s prijašnjim nalazima i saznanjima
- propisivanje lijekova (nečitak recept, loša komunikacija odnosno nerazumijevanje i nesporazumi s pacijentom, nedovoljno objašnjenje kada liječnik opće prakse ne dogovara propisivanje lijekova s liječnicima specijalistima, ili ne uzima u obzir moguće pozitivne ili negativne interakcije lijekova⁶³).

Posredni i neposredni uzroci pogrešaka

Uzroci pogrešaka, osim navedenih, mogu biti posredni i neposredni. U posredne uzroke ubraja se nedostatak ili zloraba sredstava, loša organizacija rada te preopterećenost radom. Neposredni uzroci pogrešaka mogu biti propusti u komunikaciji, tehnici i/ili tehnologiji, znanju, tehničkim znanjima i sposobnostima te nadzoru. Stoga su nužni kontrolni mehanizmi, a ako njih nema, mogući su nepovoljni događaji poput pogrešaka, s manjim ili težim posljedicama po zdravlje i/ili život pacijenata, ali i po ugled liječnika, zdravstvene ustanove te čitav sustav zdravstva. Osim navedenih, dio uzroka pogrešaka ovisi o djelatniku, uključujući nezainteresiranost, nemar, fizičke ili mentalne smetnje, alkoholizam i ovisnosti o drogama i dr. Takav način opisa uzroka pogrešaka, koji uzima u obzir uzročno-posljedični mehanizam liječničke pogreške, omogućava analizu stručne odgovornosti na primjereniji način.

Usprkos pogreškama koje čine pojedinci, ponekad oni nisu jedini krivci (ili nisu uopće krivi za pogrešku), već je ona rezultat niza pogrešaka koje se pojavljuju unutar zdravstvenog sustava koji može biti takav da se u njemu pogreške mogu događati, opravdavati, relativizirati pa i sakrivati. U tom pogledu stručna odgovornost se oportunistički može prebaciti na organizaciju, primjerice bolnicu te se govori o medicinskoj, a ne liječničkoj pogrešci. Sukladno tome, umjesto da se liječnik smatra

⁶³ Reason, J. (1995.), Understanding adverse event: human factor, u: Vincent, C., (1995.), Clinical Risk Management, London: BMJ Publ. Group, 1995., 31 -54; Vincent, C., Taylor-Adams, S., Stanhope, N. (1998.), Framework for analyzing risk and safety in clinical medicine, BMJ, 1998; 316: 1154-1157.

krivcem ako je doista kriv, opravdanje za krivnju pripisuje se lošoj organizaciji bolnice ili sustava zdravstva.

Nema dvojbe da treba promicati kulturu prevencije pogrešaka kroz analizu učinjenih pogrešaka s ciljem poticanja poboljšanja kvalitete organizacije rada liječnika, odnosno klinika i bolnica te čitavog sustava zdravstva. Liječnike i druge zdravstvene radnike potrebno je stoga obrazovati za vođenje dobre komunikacije s pacijentima. Na taj način može se jačati kvalitetan i produktivan savez između liječnika i pacijenata te smanjiti broj pogrešaka, ali i promijeniti način rješavanja eventualnih sporova i sukoba. Nema dvojbe da će liječnik, unatoč tehnologizaciji pa i robotizaciji medicine i ubuduće nastaviti obavljati svoju ulogu i biti najbitniji čimbenik u procesu liječenja pacijenata. To podrazumijeva skrbiti i štititi te pomoći pacijentu u procesu bolesti, odnoseći se prema njemu kao čovjeku, tj. s dužnom pažnjom i poštovanjem. Takav odnos može jamčiti dobra međusobna komunikacija koja se treba temeljiti na povjerenju i međusobnom poštovanju. To će pridonijeti jačanju povjerenja između liječnika i pacijenta te kvaliteti liječenja, odnosno optimalnom ishodu liječenja. Zadovoljan će biti liječnik jer je bio uspješan kao profesionalac, te pacijent zbog dobrog ishoda. Osim toga, bit će manje razloga za tzv. defanzivnu medicinu, koja u biti ne nudi dobra rješenja ni za liječnika, niti za pacijenta.

Strategija upravljanja pogreškama

Loša komunikacija s pacijentom ima brojne negativne posljedice: smanjuje se ugled liječnika, povećava se broj sudskih tužbi protiv zdravstvenih ustanova ili liječnika, potražuju se veliki iznosi novca za naknadu štete što ima sve više posljedica na financijsko stanje bolnica odnosno sustava zdravstva, razvija se obrambeni stav liječnika, tzv. defanzivna medicina, što pridonosi povećanju nehumanosti prema pacijentu i dr. To je u suprotnosti sa željom pacijenta da bude siguran u procesu liječenja te na pokon i izliječen, ali i u suprotnosti sa željom dobrog liječnika da bude uspješan u liječenju pacijenata. Proces mijenjanja negativnih posljedica loše komunikacije i osnaživanja humane i etičke dimenzije liječnikova djelovanja, pa i osnaživanje ugleda klinika i bolnica, odnosno zdravstvenog sustava, treba započeti odmah, a ne kada nepoželjne posljedice, nerijetko i kobne, postanu uobičajeni dio kulture ponašanja liječnika i funkcioniranja javnoga zdravstva. Stoga je potrebno stalno interdisciplinarno obrazovanje liječnika za komunikaciju s pacijentom i njegovom obitelji. Treba utemeljiti mogućnost (instituciju) za mirno rješavanje sporova zbog profesionalne odgovornosti liječnika ili stomatologa (s definiranim maksimalnim iznosom naknade, odnosno obeštećenja pacijenta ili njegove obitelji). U prvim godinama rada (2005.-2007.) takav je projekt pomogao u ukupno 1.700 zahtjeva za odštetu pacijenata, a miroljubivo rješenje spora postignuto je u 90% slučajeva⁶⁴.

Na europskoj razini predložene su različite vrste rješenja za upravljanje naknadom štete od medicinske pogreške: u Francuskoj, kao i u skandinavskim zemljama (Šved-

⁶⁴ De Trizio, N, i dr. (2007.), *L'errore medico: studi per la rivelazione, analisi de fenomeno, proposte operative e legislative, Professione, Cultura, e Pratica del Medico di oggi*, br. 4: 21-26, Rim

ska, Norveška, Danska, Finska) pažnja je usmjerena na pronalazak odgovornog pojedinca za pogrešku odnosno štetu. U Austriji, Njemačkoj, Irskoj i Velikoj Britaniji dominiraju sudska rješenja, kao i u SAD-u, gdje su evidentirane posljedice poput suspenzije liječnika⁶⁵ i dr. U Italiji je, primjerice, u razdoblju od 1999.- 2007. godine bilo oko 46.000 sudskih parnica, a 35% postupaka završilo je priznanjem krivnje liječnika⁶⁶. U Španjolskoj i Nizozemskoj problem se rješava izravno s osiguranjem.

U ranim devedesetim godinama u SAD-u se počela primjenjivati metoda tzv. risk managementa s ciljem prevencije pogrešaka u medicini uz pomoć identifikacije, praćenja, vrednovanja i upravljanja kliničkim rizicima, a istodobno povećava se zadovoljstvo liječnika i drugih zdravstvenih radnika. U zbilji, prevencija pogreške traži veću pozornost od kompenzacije. Princip politike risk managementa je već spomenuta tzv. neopatogeneza, tj. otkrivanje uzroka liječničke pogreške, u kojoj se sučeljavaju tzv. izravni i aktivni uzroci ovisni o djelatniku te neizravni uzroci koji su ovisni o kvaliteti organizacije bolnice⁶⁷. Pozornost se prebacuje s pogreške pojedinog zdravstvenog djelatnika na one za koje je odgovorna organizacija, primjerice bolnice. Svrha nije pronalaženje krivca koji je počinio pogrešku⁶⁸, nego smanjivanje pojave pogrešaka i poboljšanje kvalitete liječenja odnosno skrbi. Pomoću modela risk managementa otkrivaju se loši uvjeti i rizična područja koja potencijalno omogućavaju pogrešku, a cilj je sprečavanje pogrešaka poboljšanjem organizacije rada, primjerice bolnice ili klinike. Da bi se taj cilj postigao, nužna je kvalitetna i detaljna analiza: a) stečenog medicinskog znanja liječnika, b) stupnja tehničke, etičke i humanističke izobrazbe liječnika i drugih zdravstvenih radnika koji su uključeni u liječenje odnosno skrb o pacijentu, c) analiza kvalitete tehničke opreme i materijala što se koristi, d) učinkovitosti i kvalitete organizacijskog sustava za rano otkrivanje tzv. uskih grla. Risk management podrazumijeva strategiju upravljanja rizicima. Radi se o mjerama i aktivnostima koje je potrebno poduzeti za rješavanje organizacijskih i kadrovskih problema. To podrazumijeva i stvaranje ugodnog radnog okruženja, nadzor i kontrolu terapeutskih i kirurških procedura i dr.

Ne treba zaboraviti da razlog pogreške može biti loša komunikacija između članova tima, kao i broj stručnjaka uključenih u liječenje, odnosno skrb pojedinog bolesnika, veličina i složenost zdravstvene ustanove i težina zdravstvenih problema koje pogoravaju pacijenta i dr. To su čimbenici koje treba pozorno pratiti da bi se izbjeglo

⁶⁵ Prema anketi pripremljenoj od strane American College of Obstetricians and Gynecologist (ACOG) u 2003. godini, oko 27% upisanih odustalo je od prakse opstetričara i 14% je izjavilo da su zbog rizika da će im biti nametnute neke odgovornosti i obveze morali prestati raditi, u: Russell, K.L., (2005.), Presidential address: medical-legal issues in obstetrics and gynecology, American Journal of Obstetrics and Gynecology, br. 192: 1883-1889. Prema istraživanju iz područja ortopedijske kirurgije, provedenog u 4 države visokog rizika (Nevada, Pennsylvania, Mississippi, Florida) utvrđeno je da je 58% liječnika prestalo raditi ili ograničilo djelovanje u salama hitne pomoći, dok je 33% liječnika prestalo provoditi postupke visokog rizika, uz porast upućivanja pacijenata u sveučilišne bolničke centre, u: Weinstein, S.L., (2009.), Medical Liability reform Crisis 2008., Clin. Orthop. Relat. Res., br. 467: 392-401.

⁶⁶ Sodano, L., (2007.), Una legge contro il contenzioso facile, Bollettino dell'Ordine dei Medici Chirurghi e Odontoiatri di Napoli e Provincia, br. 1: (77), 24.

⁶⁷ Del Vecchio G., (2005), Decisione ed errore in medicina, Centro Scientifico Editore, Torino

⁶⁸ U nekim državama je donesen zakon o obaveznom osiguranju u slučaju liječničke pogreške.

pojavljivanje pogreške, te njezine posljedice po pacijenta, ugled liječnika i čitavog sustava zdravstva.

Nova etika pogreške

Mnoge definicije pogreške koje su opisane, međutim, nisu uzele u obzir vrlo rašireno, ali nerijetko pogrešno mišljenje da je medicina nepogrešiva, a ne da je ona znanje, vještina i umijeće sklonu pogreškama. Pogrešno je, naime, ne samo za medicinu, nego i znanost općenito poticati/razvijati dojam da je sve izvedivo, izlječivo, rješivo ako to čini dobar stručnjak. Tendencija širenja uvjerenja da medicina može riješiti/popraviti, odnosno izliječiti sve, kod liječnika uvjetuje osjećaj dužnosti da mora iscrpiti sve potencijalne mogućnosti koje nudi znanost, s ciljem da ispuni sva očekivanja pacijenta, odnosno medija i društva, ne razmišljajući je li to dopušteno i moralno činiti.

Kada se nerealna i pretjerana očekivanja ne ostvare, liječnika se (o)lako može optužiti da je pogriješio, zanemarujući činjenicu da u medicini nema opće, odnosno potpune garancije i sigurnosti te da postoje ograničenja na koja liječnik nerijetko ne može utjecati.

U stvarnosti, pogreška u medicini, kao i svakom drugom području, nije uvijek u potpunosti negativna. U slučaju kada se ona može pripisati neznanju, nesmotrenosti ili nemaru djelatnika koji radi u zdravstvenoj ustanovi, zatim neučinkovitosti ili lošoj organizaciji ustanove, mora se najprije obaviti kritička analiza. Kritička analiza pogrešaka može biti poticaj za razmišljanje, a vjerojatno i polazište za raspravu u kojoj bi se formulirali stavovi i zahtjevi za promjenama postojećeg stanja, odnosno prakse, edukacije i znanosti⁶⁹. Da bi se ona provela, potrebna je pozitivna senzibilizacija liječnika, odnosno iskrena volja za kritičko promišljanje pogrešaka. Naime, najbrže i najkvalitetnije se ovladava sadržajima prema kojima se ima pozitivan stav. U tom procesu važni su sljedeći koraci: predstavljanje problema, traženje rješenja i učenje kroz analizu pogrešaka te kritičan i konstruktivan razgovor. Svrha toga je prevladavanje mogućih uvjeta/razloga nastanka pogrešaka. Samo njegujući pedagošku funkciju pogreške moguće ju je prikazati u pozitivnom svjetlu. U zbilji, liječnik koji ne griješi ne postoji, a *dobar* je, a ne *običan*⁷⁰ samo onaj liječnik koji je odgovoran za svoja djela i u stanju je nositi teret te snositi posljedice i uspjeha i neuspjeha, odnosno pogrešaka. Iznimno je važno studente medicine suočiti s pogreškama liječnika, uključujući i pogreške njihovih profesora, koji bi morali o tome govoriti i biti spremni na kritike i konstruktivne razgovore, bez prikrivanja i negiranja svojih vlastitih pogrešaka⁷¹. Dakle, kada se pogreška dogodi, potrebno je poduzeti sve da se:

- a) na najbolji način razumije
- b) objektivno i nepristrano procijene uzroci i posljedice

⁶⁹ Gajski, L., (2009.), *Lijekovi ili priča o obmani*, Pergamena, Zagreb, str. 433.

⁷⁰ Buckman, R. (1999.), *Ne znam što reći*, Školska knjiga, Zagreb

⁷¹ Kao što je, primjerice, to učinio dr. Ivan Fattorini, liječnik iz Zagreba, u HTV-ovoj emisiji, 8. kat, 2011. godine

- c) nauči upravljati posljedicama pogrešaka
- d) preuzme odgovornost za pogrešku
- e) dobro komunicira s pacijentom, njegovom obitelji te medijima, te
- f) definiraju promjene i dopune trajne profesionalne edukacije koja sada ni ne spominje problematične strane medicine⁷².

Svrha toga je da se pogreška smatra pravom šansom za poboljšanje komunikacije liječnik-pacijent te poboljšanje uvjeta rada, unapređenje znanja i vještina liječnika, kao i za razvoj – kulture nove etike pogreške. Priznavanje pogreške nerijetko podrazumijeva i ispravljanje pogreške koja tada postaje najbolje sredstvo za poboljšanje komunikacije liječnik-pacijent, ali i za unapređenje znanja i vještina. Pogreška prilikom obavljanja liječničke djelatnosti tada postaje pogreška čije posljedice nisu samo negativne, nego može omogućiti znanstveni, profesionalni i moralni, odnosno etički napredak.

Čeka se dobra reforma zdravstva

Hrvatski liječnik u politiziranom zdravstvu osjeća da je njegov profesionalni napredak manje ovisan o kvaliteti komunikacije i uspjeha u liječenju pacijenata općenito, nego li o političkoj podršci. Dok ima političku podršku njegova briga za poštovanje prava pacijenata može biti minimalna, a nebriga nekažnjiva. Ako se napreduje uz podršku politike, a ne struke i podrške pacijenata, to može imati za posljedicu lošu komunikaciju te relativiziranje i nepoštovanje profesionalnih i etičkih standarda, odnosno vlastite profesije. U biti, to je nepoštovanje pacijenta, tj. Čovjeka. Naime, ne mora se poštovati niti ono što je dopušteno, niti što je zabranjeno. Problem je, naime, što nema crte razgraničenja između humanih liječnika i nehumanih liječnika – političara, odnosno što su ovi potonji – "zakon". U biti, oni su dio povlaštene vladajuće kaste, a nastoje se predstaviti kao kreativna i moralna elita kojoj su pacijenti i ugled struke u središtu pozornosti. U zbilji od njih se čuje samo ono što žele poručiti medijima odnosno javnosti s ciljem da se pokažu kao humane i moralne osobe, a ne ono što treba reći o stvarnom stanju, pa i problemima, koji utječu na kvalitetu rada liječnika te na kvalitetu komunikacije odnosno liječenje pacijenata. Svi propusti i greške mogu se pripisivati drugima, a krivcima proglašavati dobre i humane liječnike i pacijente, koji nisu ni za što krivi, osim za pasivnost. U biti, kao takvi oni mogu humanim liječnicima oduzeti njihovu stabilnu, sigurnu, poštovanu i uglednu poziciju u državnom zdravstvu, ali i društvu, pa čak i bez opravdanog razloga smijeniti ih s radnog mjesta, pa i deložirati te dovesti u pitanje njihovu egzistenciju. Dio liječnika još ne shvaća neprihvatljivost takvog stanja odnosno položaja liječnika. Još uvijek se misli da je to samo prijetnja liječniku kao pojedincu, a ne i profesionalnoj

⁷² Gajski, L., (2009.), *Lijekovi ili priča o obmani*, Pergamena, Zagreb, str. 433.

autonomiji liječnika te pravima pacijenata. Ne shvaća se niti da struka, odnosno profesija može (p)ostati nefunkcionalna (zatvorena, začahurena), tj. koja loše funkcionira unutar sebe, s drugim profesijama i s pacijentima, a posljedice mogu biti kolaps autoriteta i povjerenja.

Građani odnosno pacijenti, pak, ocjenjuju svojeg liječnika i stanje zdravstva iz svoje pozicije. Naime, zbog neprimjerenih limita, što za posljedicu ima ograničenu mogućnost brzog i najkvalitetnijeg liječenja, u osobnim razgovorima pacijenti se žale na lošu komunikaciju i druge postupke liječnika, a ne na vrh zdravstvene administracije, odakle dolaze ograničenja koja za posljedicu imaju pogoršanje odnosa između liječnika i pacijenta. Takva zbilja potiče animozitet čak i humanih liječnika prema pacijentima, a dio njih gubi volju za dobru komunikaciju s pacijentom i za rad sukladno profesionalnim i etičkim kriterijima. U biti, kada liječnik nema profesionalnu autonomiju, tj. kada prema pacijentu ne može postupati kako struka nalaže i kada nema vremena za dobru komunikaciju, to može značiti izravno ili neizravno kršenje prava pacijenata na liječenje odnosno zdravlje, pa i na život, a žrtve su prepuštene samima sebi. Međutim, takva zdravstvena politika nije doživjela osudu liječničke profesije odnosno liječnika, jer su ih liječnici-političari uspjeli podijeliti i podrediti sebi i svojim interesima. Postavlja se pitanje, što može potaknuti humane i moralne liječnike da se organiziraju i definiraju svoje ciljeve te postanu akteri za njihovo provođenje?

Vrh zdravstvene vlasti te ravnatelj bolnica na riječima, u javnim nastupima, ohrabruju humane i pacijentu odane liječnike, a na djelu nerijetko čine suprotno. To ima za posljedicu da su pacijenti u sve većoj nesigurnosti, bespomoćnosti i nemogućnosti brzo napraviti neophodne pretrage i početi kvalitetno liječenje s liječnikom koji dobro komunicira s njima. Oni su još uvijek pasivni, a jedan od razloga je strah od odlaska humanih liječnika u privatno zdravstvo. Najveći je problem što humani liječnici, koji cijene dobru komunikaciju poput najsloženijih medicinskih zahvata, ne dolaze do položaja s kojega mogu potaknuti promjene koje će osigurati dobre uvjete rada liječnika s ciljem omogućavanja dobre komunikacije s pacijentom i poštovanja njegovih prava. Naime, onim dobrim i humanim liječnicima, koji javno upozore na probleme s kojima se susreću u svakodnevnom radu s pacijentima, prijeti kažnjavanje, deložiranje⁷³ i šikaniranje, pa čak i za nastup na HTV-u, odnosno u medijima.

Mediji imaju važnu, ali ograničenu, mogućnost utjecaja na stanje i odnose u zdravstvu. Nerijetko ih problem zanima samo dok predstavlja senzaciju odnosno dok "prodaje" novine. Međutim, bez njih stanje bi bilo još neprihvatljivije. Postavlja se

⁷³ O tome vidjeti u: Čalušić, B.: Ravnatelj Haller deložirao prof. Petković, Novi list, 1. lipnja, 2010, str. 14, Rijeka

temeljno pitanje, kuda ide javno zdravstvo? Hoće li bolnice postati ustanove u kojima rade liječnici kao ograničeni profesionalci i neizgrađeni kao osobe, koji s pacijentom komuniciraju što manje mogu s ciljem da ne doznaju što treba poduzeti za pacijenta jer sebe time dovode u opasnost zbog probijanja limita te dovode u pitanje svoje radno mjesto, pa i egzistenciju? Koliko to može trajati⁷⁴? Kako prevladati stanje da manjina nehumanih liječnika-političara vlada većinom humanih, dobrih i dobro obrazovanih liječnika?

Kombinacija oklijevanja, ljutnje i straha za egzistenciju

Kod humanih liječnika se može očekivati kombinacija oklijevanja i ljutnje. Oklijevanje proizlazi iz osjećaja uzaludnosti pokušavanja postizanja promjena pomiješanog s ljutnjom da će svi pokušaji promjena "odozdo", tj. iz pozicije nametnute i strogo kontrolirane nemoći uroditi daljnjom štetom i nemoći. Zbog autoritarnog vladanja zdravstvom liječnici-političari mogu utjecati na prijem na posao, napredovanje u struci i dr. To potiče raslojavanje liječnika, što ima za posljedicu relativiziranje značenja dobre komunikacije s pacijentom, pa i profesionalnog, moralnog i poštenog odnosa prema pacijentu. Sve to za posljedicu ima sve veće razlike u kvaliteti komunikacije između liječnika i pacijenta u privatnim i državnim klinikama i bolnicama. Naime, loša komunikacija u javnom zdravstvu postaje sve neprihvatljiviji način ophođenja s pacijentima, što izravno puni privatne klinike pacijentima, ali samo s onima koji mogu platiti liječenje, a za one druge vjerojatno će banke uskoro ponuditi kredite uz "najpovoljniju

⁷⁴ Da se nešto ozbiljno dešava, čije prave posljedice na kulturu komunikacije i etike te odnose u bolnici i zdravstvu, odnosno svakodnevno ponašanje liječnika još nisu na djelu, potvrđuje šokantna i zabrinjavajuća vijest koja glasi: *Izmijenjeni statut KBC-a Rijeka omogućava ravnatelju da imenuje svoje suradnike bez suglasnosti Upravnog vijeća* (rijčki Novi list, 16. svibnja, 2012.g., str. 12). Taj potez ne može biti označen kao dobar. To je vijest koja možda ne ostavlja jak dojam, ali nema dvojbe da je to korak unatrag, tj. loša vijest za dobre i humane liječnike koji dobro znaju koliko znači komunikacija s pacijentom, a može biti pogibeljna za pacijente. Naime, umjesto da se principi organizacijske politike i u zdravstvu usuglase: a) s najboljim standardima ljudske dobrobiti i poštovanja autonomije liječnika (da radi kako struka zahtijeva), te b) s kulturom poštovanja prava pacijenta (da u javnom zdravstvu može ostvarivati pravo na liječenje i njegu, pa i na život), principi sukladni neoliberalnoj politici nažalost proširuju se i na zdravstveni sustav. Sigurno je, naime, da posljedica izmjene statuta nije omogućavanje liječnicima da s pacijentom dobro komuniciraju s ciljem da doznaju sve što za pacijenta treba poduzeti, nego - neprobijanje limita. To čak i humane i moralne liječnike odvraća od znanja i profesije za što su se školovali. Ne postaje li limit važniji od pacijenta? Osim toga, postavlja se pitanje, neće li suradnik ravnatelja moći postati samo onaj tko svoju dušu i um proda ravnatelju? Kome će, dakle, od sada pa nadalje liječnik biti odan: ravnatelju ili pacijentu? Nedvojbeno je: a) da je pasivno shvaćanje novonastalog stanja put prema relativiziranju pa i odustajanju od humanih ciljeva medicine i etičnosti te humanosti liječnika, tj. da je pacijent u središtu pozornosti, makar se time i "probijao" limit, te uvođenju - novih "ciljeva" koje će određivati povlaštena kasta na čije pripadnike se ti ciljevi neće odnositi, te b) da nije dovoljno vjerovati da još uvijek većina liječnika ima volju i strast boriti se za ono što je moralno, profesionalno i ljudski, jer oni mogu postati ugrožena manjina. Kao da se u Hrvatskoj, kao posljedica tranzicije (tj. lošeg odnosa povlaštene političke kaste prema javnom zdravstvu), ostvaruje poznata Illicheva osuda u knjizi "Medical Nemezis": "Institucionalizirana medicina postala je najveća pogibelj za zdravlje" (Vidjeti u: Illich, I.: (1976), *Medical Nemezis, The expropriation of Health*, Panteon Book, New York).

kamatnu stopu"! Hoće li i javno zdravstvo funkcionirati u skladu s ekonomskom profitabilnosti? Postavlja se pitanje, što se može učiniti na razini:

- a) cijelog zdravstvenog sustava
- b) bolnice⁷⁵
- c) liječnika pojedinca
- d) struke.

Uređeno ili neuređeno zdravstvo?

Nedvojbeno je da je iluzorno očekivati dobru reformu zdravstva dok je zdravstvo politizirano odnosno dok liječnici-političari⁷⁶ ne govore istinu i ne upućuju na pravo stanje stvari u zdravstvu zbog taktičkih i egoističkih kalkulacija (anatemiziranje dobrih i humanih liječnika, borba za još jedan mandat, osobni interesi i privilegije). Takav voluntarizam, koji čini štetu i liječnicima i pacijentima te općenarodnom zdravlju, tipičan je za nehumane liječnike-političare odnosno njihov model tranzicijske zdravstvene politike u sklopu čega je sve više zapreka na koje nailaze pacijenti u javnom zdravstvu⁷⁷. Stoga se još uvijek čeka dobra reforma zdravstva odnosno obnova zdravstva⁷⁸ što će, ne samo omogućiti, nego i stimulirati liječnika da dobro komunicira s pacijentom. Uvjet je, međutim, da tako osmišljena reforma preživi i bude osnažena stručnom argumentacijom odnosno argumentiranim osporavanjima i poboljšanjima uz sudjelovanje struke i pacijenata. Bez toga reforma će za posljedicu imati ozbiljne nedostatke odnosno negativne posljedice i po ugled liječnika i za prava pacijenata, te za općenarodno zdravlje. U biti bit će to – antireforma. Umjesto uređenog sustava zdravstva imati ćemo neuređeni sustav pogodan za skrivanje različitih pogrešaka i anomalija⁷⁹. Što učiniti?

⁷⁵ 90% pritužaba pacijenata u KBC-u Rijeka odnosi se na probleme povezane s komunikacijom, izjavila je prof. dr.sc. Karmen Lončarek, na skupu "Što je skriveno u hrvatskom zdravstvu?", Motovun, 26.-28. srpnja, 2012. godine.

⁷⁶ Dok liječnik-političar (inače vrhunski stručnjak) upravlja bolnicom događa i to što mi je javljeno iz KBC-a Rijeka: kad je ministar došao na odjel svi su se od osoblja (sestara, čistačica) pa i pacijenata morali pozatvarati, nikoga nije smjelo biti na hodniku i nije se smjela čuti "ni muha"?!

⁷⁷ O tome vidjeti u: Štifanić, M.: *Ima li nade za kute i pidžame*, Adamić, Rijeka, 2003.; *Prava pacijenata. Vodič za kulturu poznavanja i poštovanja prava pacijenata*, Adamić, Rijeka, 2007.; *Zdravstvo po mjeri Čovjeka*, Adamić, Rijeka, 2008.; *Dobar liječnik*, Adamić, Rijeka, 2006.; *Bolesno zdravstvo. Osveta privilegiranih*, Adamić, Rijeka, 2008.; *Kultura umiranja, smrti i žalovanja*, Adamić, Rijeka, 2009.; *Kriza zdravstva: prijetnje i mogućnosti. Zdravlje postaje roba koju bogati kupuju, a siromašni umiru*, Hrvatski pokret za prava pacijenata, Rijeka, 2011.; *Pritužbe pacijenata. Kako do pravde?* Hrvatski pokret za prava pacijenata, Rijeka, 2011.; *Što sestre rade na fakultetu? Kakve sestre i sestrinstvo trebamo?* Hrvatski pokret za prava pacijenata, Rijeka, 2012.

⁷⁸ O "obnovi zdravstva" vidjeti u: - Gorjanski D. (2011.), *Obnova zdravstva*, Zaklada Slagalica, Osijek

⁷⁹ O tome vidjeti u: Štifanić, M. (2011.), *Kriza zdravstva: prijetnje i mogućnosti. Zdravlje postaje roba koju bogati kupuju, a siromašni umiru*, Hrvatski pokret za prava pacijenata, Rijeka

Prvo, potrebno je učiniti sve da uvjeti rada liječnika i drugi problemi u državnim bolnicama postanu vidljivi stručnoj i općoj javnosti, tj. da svi vide kako neprimjereni limiti, tj. neprimjereni proračun bolnice, onemogućava da humani liječnik učini za pacijenta sve ono što struka zahtijeva, te na taj način ugrožava njegovo zdravlje, pa i život.

Drugo, da stvarni problemi u funkcioniranju zdravstva postanu razlog za aktivizam liječnika odnosno struke, tj. da se humani liječnici organiziraju i definiraju zahtjeve za promjene i budu njihovi akteri.

Treće, da udruge oboljelih i udruge za zaštitu i promicanje prava pacijenata definiraju zahtjeve i postanu saveznici humanih liječnika s ciljem da se osiguraju uvjeti u kojima će liječnik u komunikaciji i liječenju pacijenta moći spojiti etičku odgovornost s profesionalnim uspjehom i zadovoljstvom u radu.

Također, nema dvojbe da:

- a) na nacionalnoj razini treba ustanoviti neovisnu instituciju koja će učinkovito štititi autonomiju liječnika i prava pacijenata i na taj način utjecati na jačanje povjerenja u zdravstveni sustav, odnosno u liječnika i druge zdravstvene radnike, te
- b) u svim bolnicama treba uvesti instituciju Povjerenika za pacijente koji treba imati dovoljno stručnosti i neovisnosti da bi mogao procjenjivati kvalitetu komunikacije s pacijentom (osim toga, i ta institucija treba spriječiti da javno zdravstvo postane tromi sustav u kojem se loša komunikacija s pacijentom i druge pogreške opravdavaju tranzicijom, recesijom, bolničkim limitima...).

Hrvatsko zdravstvo je, nema dvojbe, mjesto u kojem treba započeti ove aktivnosti koje mogu omogućiti da liječnici ponovno pridobiju izgubljenju poziciju i ugled, te da promijene stanje u zdravstvenom sustavu. Međutim, proces mijenjanja medicine i osnaživanja njezine humane i etičke te komunikativne dimenzije započet će onda kada negativni i nepoželjni aspekti suvremene medicine i posljedice loše komunikacije između liječnika i pacijenta, ali i komunikacije u bolnici, unutar struke i prema javnosti, postanu sasvim prepoznatljivi. Prvi je korak stvaranje svijesti o krizi kulture i etike komunikacije, čemu najviše trebaju pridonijeti profesori na medicinskim fakultetima, koje, također, treba educirati. Iz te svijesti nastat će promjene ponašanja bolesnika i ljudi općenito i promjena rada liječnika⁸⁰. U zbilji, prepoznavanje negativnih obilježja loše komunikacije, te "starog" profesionalizma, omogućit će razvoj *nove paradigme* obrazovanja za kulturu i etiku komunikacije liječnika s pacijentom te *novog*, demokratskog profesionalizma i *holističkog* poimanja komunikacije s paci-

⁸⁰ Gajski, L., (2009.), Lijekovi ili priča o obmani, Pergamena, Zagreb, str. 433-434.

jentom. To će omogućiti razvoj medicine usmjerene osobi u uređenom zdravstvenom sustavu. U zbilji to znači provođenje medicine *od osobe*, tj. od liječnika i *s osobom*, tj. s pacijentom. Njezin temelj je dobra komunikacija i suradnički odnos dviju osoba: liječnika i pacijenta. Provođenje medicine usmjerene prema osobi treba shvatiti kao autentični proces modernizacije liječničke profesije i drugih zdravstvenih radnika te čitavog javnog zdravstva kako bi se omogućila veća funkcionalnost toga sustava i usluga od čega ovisi zdravlje, pa i životi građana, te budućnost nacije. To podrazumijeva partnerstvo i suradnju bolje educiranog, tj. *novog* liječnika i *novog* pacijenta (obrazovanijeg, informiranijeg i aktivnijeg) u procesu liječenja. Kao posljedica toga razvijat će se *nova kultura i etika komunikacije* za što je karakteristično uključivanje, a ne isključivanje primatelja usluga u procesu liječenja. U sklopu tog novog profesionalizma u medicini usmjerenoj osobi, umjesto nekadašnje distance u odnosu s pacijentom, *novi* liječnik razvija suradnju i dobru komunikaciju kao vlastiti interes i potrebu, odnosno kao dio profesionalne etike i kulture. Samo na taj način može se osigurati ostvarivanje cilja sustava zdravstva da je pacijent u središtu pozornosti. Upravo zbog toga medicina nije samo struka, poput mehaničara. Odgovornost prema pacijentu, obitelji i društvu pretvara je u profesiju. Međutim, takvu svoju misiju liječnik može ostvariti samo u dobro uređenom sustavu zdravstva i s medicinom usmjerenom osobi te uz pomoć dobre komunikacije, koju treba cijeliti poput najsloženijih medicinskih zahvata. Svrha je da se i liječnik i pacijent osjećaju i ponašaju kao *osobe*. Čak i kada se dogodi pogreška u obliku loše komunikacije, ili kao njezina posljedica.

Zaključna razmatranja

Suvremeno društvo obilježava porast razmjene informacija i teži poistovjećivanju liječnika i bolnice, pa i sustava zdravstva, s medijski oblikovanim i posredovanim događajima i vijestima, nerijetko senzacionalističkim i tendencioznim. Kao i svi racionalni sustavi, i medicina teži da od ljudskih tehnologija kontrole prijeđe na neljudske tehnologije, ističe prof. dr. Josip Županov te nastavlja da je subjektivna presuda, bar djelomice, nadomještена i tehnološkom prosudbom. Bliži se vrijeme kada će kompjutor davati polaznu ili čak glavnu dijagnozu, a tu su i pretrage po načelu "uradi sam" (testovi trudnoće, mjerenje šećera u krvi, arterijskog tlaka i dr.). Ukratko, liječnik koji iz crne torbe vadi nekoliko instrumenata je prošlost⁸¹. Njegov ugled i ugled suvremene bolnice i sustava zdravstva oblikuju mediji. Oni nerijetko stvaraju nepogodnu društvenu klimu koja može štetiti ugledu liječničke profesije. Za takav tijek ne treba kriviti liječnika i druge zdravstvene radnike, nego u velikoj

⁸¹ Županov J. (1996.), McDoctors. Ratio i razum u suvremenoj medicini, Hrvatsko gospodarstvo br.79/1996.

mjeri ministra zdravstva, odnosno model strategije organiziranja, planiranja i upravljanja zdravstvom.

Uvjeti rada liječnika, medicinskih sestara i drugih zdravstvenih radnika sve su zahtjevniji. Njihove radne zadaće sve su sofisticiranije, zahtjevnije, kontrolabilnije, što uz sve sofisticiraniju tehniku i tehnologiju dovodi do pojave brojnih oblika i stanja nezadovoljstva na radnom mjestu, ali i do duševnih i tjelesnih simptoma koje nazivamo sindromom izgaranja. Sindrom izgaranja posebno pogađa osobe koje rade s ljudima i koje svojim odlukama utječu na ljudsko zdravlje, sreću i život. Liječnici spadaju u tu grupu. To može biti razlog da se događaju pogreške zbog kojih trpe pacijenti i njihove obitelji. Osim toga, liječničke pogreške sve su veće zapreke u funkcioniranju javnoga zdravstva. Iako njihova brojnost⁸² i cijena već imaju brojne negativne posljedice, u Hrvatskoj dominira "strategija šutnje". To podrazumijeva:

- a) devaluaciju ugleda liječnika, bolnice i javnoga zdravstva
- b) stagnaciju te nazadovanje u funkcioniranju bolnice
- c) potiče se animozitet između liječnika i pacijenta
- d) povećava se mogućnost sudskih tužbi.

Posljedice toga su:

- a) sve veća financijska opterećenja bolnica
- b) sve veća stresna opterećenja liječnika, te
- c) sve manja motivacija za rad.

Takvo stanje neprihvatljivo je i za liječnike i za pacijente. Stoga je neophodna modernizacija hrvatskoga zdravstva s ciljem povećanja kvalitete i učinkovitosti rada. To podrazumijeva uvođenje promjena na svim razinama i u svim segmentima: organizacijskim, komunikacijskim, humanističkim, moralnim i etičkim. Svrha toga je omogućiti dobru komunikaciju s pacijentom i njegovom rodbinom, što je u izravnoj ili neizravnoj funkciji sprečavanja brojnih drugih pogrešaka.

Najbitnija je prevencija loše komunikacije i pogreške. To zahtijeva veću pozornost od financijske kompenzacije za pogrešku. Potrebno je, naime, osmisлити i uvesti strategiju *risk managementa* s ciljem identifikacije, praćenja i vrednovanja te upravljanja pogreškama. Kliničko upravljanje rizicima treba biti usmjereno na identificiranje organizacijskih nedostataka koji olakšavaju, omogućavaju ili uvjetuju nastanak pogreške te njezino nepovoljno, odnosno štetno djelovanje na liječnike i pacijente. Svrha te strategije je stimuliranje dobre komunikacije s pacijentom. Nadalje, uvođenje strategije *risk managementa* znači doprinos odgovornom shvaćanju i percepciji rizika

⁸² U Hrvatskoj se trenutno vode 632 sudska spora protiv 51 bolnice, a prosječna visina odštete je 800.000 kuna (prema Dnevniku RTL-a, 26. ožujka 2012. godine).

te sustavno sprečavanje ponavljanja pogrešaka. Istodobno bi se povećalo zadovoljstvo liječnika i drugih zdravstvenih radnika (jer imaju optimalne uvjete rada), te bolesnika (jer će biti sigurni da će dobiti najbolje liječenje). U tu svrhu potreban je savez između liječnika i pacijenata. I jednima i drugima cilj bi trebao biti razvoj medicine usmjerene osobi: *od osobe i za osobu*⁸³. Ona se može provoditi pomoću dobre komunikacije između liječnika i pacijenta kao dviju *osoba*. Naime, unapređuje se zdravlje pacijenta kao *osobe*, s jedne strane, a s druge, liječnik se jedino na taj način izgrađuje kao kompletna *osoba*. To je temelj medicine usmjerene osobi: pacijentu kao osobi i liječniku kao osobi. Želio bih da ova knjiga bude svojevrsan *Uvod u hrvatsku medicinu usmjerenu osobi*. Njezina *filozofija* je provođenje medicine od liječnika kao *osobe* vrhunski obrazovane, humane i moralne, koji dobro komunicira i surađuje s pacijentom kao *osobom* koja treba pomoć. Nema dvojbe da bi se i na taj način prevenirale pogreške, a kada one i nastanu, znatan dio rješavao bi se - mirenjem⁸⁴. Međutim, i u tom procesu (mirenja) bit će iznimno bitna komunikacija. Nema dvojbe da bi mirno rješavanje sporova u našim bolnicama povećalo zadovoljstvo i pozitivnu motivaciju liječnika, a zbog te mogućnosti pacijenti bi bili zadovoljniji jer ih se čuje, cijeni, uvažava i poštuje. Ako ovaj modernizacijski proces izostane, moguće je da se liječnicima podmeće stereotip da su svi pacijenti neprijateljski raspoloženi prema liječnicima te da uvećavaju problem pogrešaka, dok će pacijenti tvrditi da liječnici potcjenjuju stvarnu veličinu problema pogrešaka, da su svi isti, *da vrana vrani oči ne kopa*, i sl. U svakom slučaju, vrijeme je za suočavanje, sustavno, temeljito i s voljom, s problemom liječničkih pogrešaka koji je u svijetu dosegnuo velike razmjere, nerijetko uznemiravajuće. U hrvatsku medicinsku praksu potrebno je ugraditi određene preventivne i korektivne strategije usmjerene na omogućavanje i stimulaciju dobre komunikacije s pacijentom i smanjenju pojavljivanja pogreške te šteta od njih. Naime, dobru komunikaciju treba smatrati vrijednom kao i najsloženije medicinske zahvate. Potrebna su poboljšanja i inovacije u funkcioniranju bolnice. Nadalje, potrebno je omogućiti primjenu znanstvenih spoznaja, stimulirati profesionalno, humano i etičko ponašanje zdravstvenih djelatnika, a rješavanje posljedica pogrešaka sudskim putem svesti na minimum minimuma.

⁸³ Mezzich, J., E., (2012.), *Medicina usmjerena osobi – osnovni principi zaboravljene medicine*, Medix, br.98/999, str. 78-82, Zagreb

⁸⁴ U Italiji postoji institut mirenja nakon nastale pogreške, odnosno štete za sporove s maksimalnom naknadom štete u vrijednosti do 25.000 eura. U razdoblju između 2005.-2007. godine takav je projekt pomogao u ukupno 1.700 zahtjeva za odštetu pacijenata, a miroljubivo rješenje spora postignuto je u 90%, u: De Trizio, N, i dr. (2007.), *L'errore medico: studi per la rivelazione, analisi de fenomeno, proposte operative e legislative*, Professione, Cultura, e Pratica del Medico di oggi, br. 4: 21-26, Rim

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Mirko Štifanić

Bad communication and other medical errors

ABSTRACT

Numerous scientific revelations and discoveries make the technological development of medicine possible. The methods of medical treatment are becoming more and more efficient and the percentage of success in medical practice higher and higher. Unfortunately, there is a constant rise of alienation, misunderstanding, lack of consent and even conflict between the physician and the patient. Bad communication is (more than often) the reason behind the confrontation between the two. The perception of the same from the patient's point of view is equally important. A form of communication that is "ill" is one of the most frequent mistakes that makes it possible for other mistakes to occur, human and/or technical. If a patient does not receive an apology or at least an explanation regarding something that has happened, bad communication could motivate him/her to press charges against a healthcare institution or its employee.

The problem of different perspectives, understanding and definition of a mistake is warned about in and during taking care of work. Is it a complication, side-effect, accident, negligence, malpractice? It is the author's goal for the mistakes to be viewed as an opportunity to enhance the quality of medical practice and to prevent any future mistakes from happening. By doing so, the relationship between the physician and the patient would get to a higher, more satisfying level.

Key words: bad communication, medical errors, errors management.

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Doublespeak: Using language to conceal the message in a political, military and medical context

ABSTRACT

Half a century has passed since Marshall McLuhan's 'The Gutenberg Galaxy: The Making of Typographic Man' came into being, introducing the now famous term 'global village', but the passing years have only added to the actuality of the phrase. In 2012 the world seems to have shrunk to the dimensions of one's own living room, where one can witness Alexander the Great's army defeating the Persians in the Battle of Issus in 333 BC, and contemporary Baghdad being bombed at night, all while having dinner.

In a world, where economic interests dictate the unleashing of global wars, controlling the proliferation of message content in the global village has become exponentially important. Confucius' rectification of names seems to have fallen from grace with the rulers of today: those in power have found a way to use language as a smoke screen – or a concave mirror – and words have been utilized to conceal meaning rather than convey it.

Doublespeak has become the norm of political and military language, as well as certain aspects of communication within a medical context: the general public has been willfully deceived into misinterpreting the message.

Keywords: doublespeak, deceptive language, spin, conceal message, global village, rectification of names, medical insurance

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Objective

The study aims at researching the meaning and origin of the term 'doublespeak', as well as its most prominent manifestations, so as to reach a conclusion regarding its nature and utilization, along with its social effects, based on prominent occurrences in the spheres of politics, war and contemporary medical insurance practices.

Language and Meaning

According to the Oxford English Dictionary, one of the functional definitions of language is: 'words and the methods of combining them for the expression of thought.'¹ It can, therefore, be concluded that meaning ('which a speaker or writer intends to express'²) is produced by a process of conscious selection and collocation.

Great thinkers have always understood the importance of said process – and the social implications of its intended results. Around 500 BC or earlier,³ the Analects introduced the Confucian doctrine of the 'rectification of names', according to which 'for every action, there is a word that describes that action.'⁴: 'If names be not correct, language is not in accordance with the truth of things. If language be not in accordance with the truth of things, affairs cannot be carried on to success.'⁵ Confucius further postulates that in the absence of name rectification 'the people do not know how to move hand or foot'⁶. This conclusion directs our attention to the fact that in a society where messages are deliberately obscured, chaos ultimately reigns in regards to social affairs.

Doublespeak

Doublespeak can be defined as 'language that deliberately disguises, distorts, or reverses the meaning of words.'⁷ The origin of the term is somewhat vague (although it could arguably be traced back to Orwell's prophetic book '1984' and more spe-

¹ *Oxford English Dictionary, Second Edition, on CD-ROM Version 4.0*, Oxford University Press, 2009, definition 2a of 'language'.

² *Ibid.*, definition 2b of 'meaning'.

³ <http://en.wikipedia.org/wiki/Analects> (October 27, 2012)

⁴ http://en.wikipedia.org/wiki/Rectification_of_names#Confucius (October 27, 2012)

⁵ <http://ebooks.adelaide.edu.au/c/confucius/c748a/book13.html> (October 27, 2012)

⁶ *Ibid.*

⁷ <http://en.wikipedia.org/wiki/Doublespeak> (October 27, 2012)

cifically to the concepts of 'Doublethink' and 'Newspeak')⁸. It is, however, clear that doublespeak is an aggressive version of a socially destructive linguistic activity, described by Confucius 2,500 years earlier.

Doublespeak is not the same as euphemism, as the latter can be used 'appropriately and without the intention to deceive'⁹. Nevertheless, some instances of doublespeak rely on the same mechanism of 'making the truth less unpleasant'¹⁰. It is important, however, to point out that the former cannot be simply viewed as a subcategory of the latter, as doublespeak can be non-euphemistic.

Functional Environment of Misleading Language

The Scientific Alliance – a non-profit organization, based in Cambridge – has published online an article named 'Misleading Language', whose introductory paragraph is worth quoting here: 'Use of language is one of the main factors which defines humanity. At its best, it cannot only express our deepest feelings and be a source of great beauty, but also put across complex concepts with clarity and lack of ambiguity. However, language can also be misused and be deliberately misleading. Most obviously, this is in the form of propaganda, but more subtle misuse can be just as bad. This is as true in the case of science as for politics, finance or other areas.'¹¹

The word *politics* is etymologically derived from the Greek πολιτικός or 'pertaining to citizens, civic, civil'¹². But collocating it next to 'finance' in the above definition is not a coincidence. The politics of today often have less to do with the common citizen, and much more – with corporate money and power.

The third word, conspicuously missing from the above definition, is 'war'.

Doublespeak in a Military Context

As Julie Redstone points out: 'War has many facets. It involves military engagement. It involves economic support. It involves the creation of an infrastructure. And it involves the choice of a particular language which shapes public opinion.'¹³

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

¹¹ <http://www.scientific-alliance.org/scientific-alliance-newsletter/misleading-language> (October 27, 2012)

¹² *Oxford English Dictionary, Second Edition, on CD-ROM Version 4.0*, Oxford University Press, 2009, etymology of 'politic'.

¹³ http://lightomega.org/worldwatch/America/Language_of_War.html (October 27, 2012)

Finances, politics and war go hand in hand in their treatment of language as a tool to manipulate the message. As early as 250 BC, a Macedonian commander named Antigonus Gonatas 'refused to admit that he had retreated and instead described [it] as a strategic movement to the rear'¹⁴.

Retreat, as a humiliating development within a military campaign (and thus – a difficult piece of news to break), seems to have produced more than its fair share of doublespeak messages. It has been referred to as 'adjustment of the front', a 'retrograde maneuver', a 'redeployment of forces'¹⁵. When we are told that 'our troops have engaged the enemy on all sides' this may not be a reason to rejoice as it most probably means that our forces have been ambushed, and soldiers are being slaughtered.

But retreat is not the only military reality that may need doublespeak techniques to sweeten the message. War offensives themselves may be rather ungainly and in need of a linguistic spin: 'Defenseless villages are bombarded from the air, the inhabitants driven out into the countryside, the cattle machine-gunned, the huts set on fire with incendiary bullets: this is called pacification. Millions of peasants are robbed of their farms and sent trudging along the roads with no more than they can carry: this is called transfer of population or rectification of frontiers. People are imprisoned for years without trial, or shot in the back of the neck or sent to die of scurvy in Arctic lumber camps: this is called elimination of unreliable elements. Such phraseology is needed if one wants to name things without calling up mental pictures of them.'¹⁶

David Guyatt in his article 'Killing me softly' points out that nowadays some types of assault weaponry is referred to in a more agreeable manner – as 'non lethal' or 'less than lethal'. The author writes that 'both descriptions remain interchangeable and, today, are often "packaged" along with another military euphemism: 'Soft Kill Technologies'. Blood, guts and especially death are no longer politically acceptable.'¹⁷

A designated Doublespeak Award has been given on an annual basis as an 'ironic tribute to public speakers who have perpetuated language that is grossly deceptive, evasive, euphemistic, confusing, or self-centered.' It has been issued by the National Council of Teachers of English (NCTE) since 1974. The recipients of the Doublespeak Award are usually politicians, national administrations or departments. An example of this is the United States Department of Defense, which won the award three times in 1991, 1993, and 2001 respectively. For the 1991 award, the United

¹⁴ <http://cocobear80.blogspot.com/2006/01/military-euphemisms.html> (October 27, 2012)

¹⁵ Ibid.

¹⁶ <http://www.mtholyoke.edu/acad/intrel/orwell46.htm> (October 27, 2012)

¹⁷ http://www.deepblacklies.co.uk/killing_me_softly.htm (October 27, 2012)

States Department of Defense 'swept the first six places in the Doublespeak top ten' for using euphemisms like 'servicing the target' (bombing) and 'force packages' (warplanes).'¹⁸

Doublespeak in a Political Context

In his profound and candid text 'Politics and the English Language', George Orwell wrote: 'Now, it is clear that the decline of a language must ultimately have political and economic causes: it is not due simply to the bad influence of this or that individual writer.'¹⁹

Politicians seem to exhibit an acute sensitivity about the linguistic mishaps of their opponents, while in opposition, but tend to employ similar techniques to influence public opinion when in office: 'In his speech on national security before the American Enterprise Institute on May 21, former Vice President Dick Cheney complained of the 'emergence of euphemisms [under the Obama administration] that strive to put an imaginary distance between the American people and the terrorist enemy. 'Instead of being properly at war with terrorists and other "killers and would-be mass murderers, we were now involved,' Cheney dismissively noted, 'in so-called "overseas contingency operations," a catch-all term adopted by the Obama administration in place of the previous administration's "war on terror."

Yet for all of Cheney's posturing about the allegedly milquetoast euphemisms of Obama, he persisted in repeatedly invoking "enhanced interrogation" for methods of torture (such as waterboarding) that have been previously prosecuted as war crimes by the United States.'²⁰

Thus misleading language has become commonplace even at the highest level of official government discourse. In his statement at the news conference on Feb. 15, 2011 President Obama detailed that 'What [his] budget does is to put forward some tough choices, some significant spending cuts, so that by the middle of this decade, our annual spending will match our annual revenues. We will not be adding more to the national debt. To use a sort of an analogy that families are familiar with, we're not going to be running up the credit card anymore. That's important, and that's hard to do, but it's necessary to do.'²¹ Following a question by a journalist present at

¹⁸ <http://en.wikipedia.org/wiki/Doublespeak> (October 27, 2012)

¹⁹ <http://www.mtholyoke.edu/acad/intrel/orwell46.htm> (October 27, 2012)

²⁰ <http://hnn.us/articles/88504.html> (October 27, 2012)

²¹ http://voices.washingtonpost.com/fact-checker/2011/02/obamas_misleading_language_on.html (October 27, 2012)

the news conference, the President was then forced to admit that 'he was excluding the interest on the debt when he declared 'we will not be adding more to the national debt.' He was talking about a budgetary concept known as "primary balance," in which the government spends no more than it collects, not counting interest payments.'

The President knowingly misrepresented the facts as he knew them.

Doublespeak in the Global Village

Half a century has passed since Marshall McLuhan's 'The Gutenberg Galaxy: The Making of Typographic Man' came into being, introducing the now famous term 'global village', but the passing years have only added to the actuality of the phrase. In 2012 the world seems to have shrunk to the dimensions of one's own living room, where one can witness Alexander the Great's army defeating the Persians in the Battle of Issus in 333 BC, and contemporary Baghdad being bombed at night, all while having dinner.

As a side effect, mass media has made the proliferation of doublespeak messages easier than ever, thus multiplying their strength.

Communism has failed, but it seems that Capitalism in its present state will not be around long enough to celebrate its demise. The unpalatable truth of the deepening economic crisis, large scale money printing and the resulting inflation requires the use of even bigger and deeper smoke screens. 'In our time, political speech and writing are largely the defense of the indefensible.'²²

Language as War

The famous aphorism by Carl von Clausewitz states that 'War is the continuation of politics by other means', but it could also be argued that doublespeak, in its turn, is the continuation of war by other means.

'A lie told often enough becomes the truth.', used to say Lenin, and we have to agree that multibillion news businesses like CNN, whose foreign reporters do not mind staging the occasional street battle, are indeed the voice of a legion, heard through a megaphone, louder than anything we have ever heard.

²² <http://www.mtholyoke.edu/acad/intrel/orwell46.htm> (October 27, 2012)

Doublespeak in a Medical Discourse

What could be the common ground shared by war and the most humane of sciences – medicine? Physician-author Richard Asher coined the term 'medspeak' to refer to the special blend of doublespeak and moral relativity often used in medicine.²³ David Woods, the Editor-in-chief of the Canadian Medical Association Journal has supplied the following examples: 'the poor have become "the underprivileged"; drug addicts are "the chemically dependent"; and children of low intelligence are "exceptional students"'.²⁴

While the above tend to conceal the meaning from the untrained ear, but are generally harmless, other doublespeak medical terms have a far darker purpose.

It seems that insurance professionals in the US have found a way to deny patients coverage of medical costs under supposedly comprehensive insurance policies by putting legal language to 'good use'. As award-winning filmmaker Michael Moore explains in his documentary 'Sicko' obscure terms such as 'pre-existing condition' are skillfully used to manipulate and make legally viable the denial to reimburse medical costs. As per the definition of said term: 'A pre-existing condition is a risk with extant causes that is not readily compensated by standard, affordable insurance premiums.'²⁵ Unfortunately, insurance companies have taken liberties when defining such risks, and also by setting the 'maximum pre-existing condition exclusion period' which could vary from 6 months in Massachusetts to 10 years in Indiana, and even be an indefinite period of time in a number of states, among which Arizona, District of Columbia, Louisiana, Missouri, etc.²⁶ President Obama, in his health-care speech, delivered in March of 2010, proposed reforms that 'would end the worst practices of insurance companies. No longer would they be able to deny your coverage because of a pre-existing condition.'²⁷

It also seems that oftentimes when a patient needs expensive medicine which could potentially save his life, the cure is dubbed 'experimental' and as such it falls under a special clause of the policy, set up for the purpose of denying coverage to patients, who happen to need it most. 'Although clinical trials and experimental medical treatments have the potential to increase both the length and quality of a person's

²³ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1491368/pdf/cmaj00127-0009.pdf> (October 27, 2012)

²⁴ Ibid.

²⁵ http://en.wikipedia.org/wiki/Pre-existing_condition#Current_and_pending_pre-existing_condition_exclusion_regulation_in_the_United_States (October 27, 2012)

²⁶ Ibid.

²⁷ <http://www.marketwatch.com/story/full-text-of-president-obamas-health-care-speech-2010-03-03> (October 27, 2012)

life, insurance companies often refuse to pay for untried and costly medical procedures. With new treatment therapies constantly evolving, insurers find themselves in the position of coming up with ways to cut rising health insurance costs. Consequently, experimental treatments are often among the first medical expenses an insurance provider denies.²⁸

Earl P. Steinberg, Sean Tunis, and David Shapiro in their report 'Insurance Coverage for Experimental Technologies' further argue that 'had insurers, including Medicare, not paid the costs associated with "unproven" technologies in the past, many of the innovations for which American medicine is lauded might not have come to pass. Insurers' reluctance [...] could curtail the development of new technologies and threaten our health care system's ability to keep up the pace of helpful innovations.'²⁹

Conclusion

Although using language to conceal the meaning was considered a socially disruptive practice as early as 500 BC, its utilization seems to have intensified in the era of mass media and globalism – and especially so in the spheres of politics, war and medicine. Its ill effects have been recognized at the highest levels, but nevertheless doublespeak remains the tool of choice when difficult news have to be announced or public opinion has to be manipulated to serve the interests of the few and powerful.

The use of doublespeak in medicine can serve as a good example of its destructive effects – curtailing the development of new technologies and directly endangering human life.

Public interest in said phenomena has intensified in recent years with awareness of its negative influence possibly bringing about positive change.

²⁸ http://www.ehow.com/info_8378632_health-insurance-experimental-treatments.html (October 27, 2012)

²⁹ <http://content.healthaffairs.org/content/14/4/143.full.pdf> (October 27, 2012)

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Alessandra Vicentini, Kim Grego*, Daniele Russo

The Pro.Bio.Dic. (*Prototype of a Bioethics Dictionary*) project: Building a corpus of popular and specialized bioethics texts

ABSTRACT

This paper reports on an ongoing, long-term research project in the field of medical ethics and bioethics conducted by a multidisciplinary team combining medical, linguistic, IT and philosophical research interests: the *Prototype of a Bioethics Dictionary* (*Pro.bio.dic*). Having already outlined (Vicentini *et al.* 2011) the reasons and needs to both redefine and update the lexicographic material available so as to provide a corpus-based collection of the English terms of contemporary bioethics to be published on a web platform, the *Pro.bio.dic* has now entered the key stage of corpus-building.

This stage requires establishing the criteria involved in creating a large, statistically-valid reference corpus of both specialized and popular bioethics texts, to be processed by means of text-mining and machine-learning techniques, and to serve as the basis from which the entries of the electronic online tool described as the *Pro.bio.dic* will be drawn by means of concordancing software.

Keywords: bioethics, English lexicography, corpora, corpus linguistics, online dictionary

¹ Research for this paper has been carried out jointly by the three authors. Alessandra Vicentini is responsible for § 1 and 3; Kim Grego for § 2 and 2.1; Daniele Russo for § 2.2.

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1. Background, aims and methods

This paper stems from an ongoing, long-term research project in the field of medical ethics and bioethics conducted by a multidisciplinary team² combining medical, linguistic, computer science and philosophical research interests: the *Prototype of a Bioethics Dictionary* (Pro.Bio.Dic). Its origins lie in the realisation that novel issues regarding the ethics of medical communication in the globalized, internet-connected world (Brügger / Bødker 2002, Slevin 2002, Mooney / Sarangi 2003, Vicentini / Grego *et al.* 2010) – together with the modern advances in technology and informatics applied to linguistics (Sinclair 1991, Thomas / Short 1996, Joachims 2002, Avancini *et al.* 2006, Bishop 2006) – call for both a redefinition and an updating of the lexicographic material available. Indeed, a detailed scrutiny of the latter showed it to be inadequate to meet today's societal and knowledge requirements in the domain of bioethics (Jonas 1997, Brannigan 2001, 2004, Bellini 2008, 2012), since it was addressed only to a specialist public, written by a single (either a physician or a philosopher) expert, and created without referring to a scientific compiling methodology, but based on previous lexicographic works. Not only, the latter was usually merely re-elaborated, adding and adjusting some new information to the same core lexemes and contents, a process that inevitably left room for the compiler's own introspection and individual linguistic experience³. Contrary to this, the Pro.Bio.Dic will distinguish itself from the past lexicographic production in terms of a) the multidisciplinary approach adopted, necessarily deriving from the underlying linguistic objectives and from the inherently interdisciplinary nature of bioethics, which many scholars would, on that account, describe as a field rather than a specific discipline; b) the employment of an up-to-date and innovative scientific method based on the principles of statistics, corpus and computational linguistics and automatic classification of texts rooted in machine learning and text mining techniques (Sinclair 1989/1995, Sebastiani 2002, 2006, Liu *et al.* 2007, Manning / Raghavan / Schuetze 2008); c) a new modality of content sharing given by its publication on an online wiki platform, which will allow to involve other experts possibly contributing new insights into the research itself and making it an ever-changing and -improving instrument open to non-experts as well.

² The multidisciplinary team working on the project includes researchers, professors, research fellows and Ph.D. students based at the Universities of Varese, Milan, Turin, Pavia (Italy) – comprising a linguistics, a philosophy and a computer science section – and at the Institute for the Science and Technologies of Information of the National Council of Research (ISTI-CNR) (Pisa, Italy). It also avails itself of the supervision and consultancy of The College of Saint Rose (Albany, New York, US) in the person of Prof. M. C. Brannigan.

³ The problem of bias and ideology connected with lexicographic practice is one of the subjects investigated by the 2009 PRIN project (a government-funded research programme of national interest) *Within and across borders: Usage and norm in Western European languages* coordinated by Prof. G. Iamartino (University of Milan, Italy).

The latter, that is directly opening the dictionary to the general public, constitutes one of the most innovative aspects in comparison with the past approach. One must consider that health and well-being are commonly associated with treatments, cures and procedures. However, especially in the case of well-being, it is possible to contribute to these notions by leading a health-conscious life, which includes receiving (and providing) the correct amount of correct information. The question of how the man-in-the-street can disentangle the huge amount of web-based documents on health(care) available in the internet becomes dramatically relevant when bioethical factors are involved. Indeed, any one citizen may find it necessary to ask at one point or another in his / her life questions concerning life-health(care)-death issues, such as euthanasia, abortion, stem cells, cloning, genetic manipulation etc., by which he / she is constantly and massively bombarded by the media. The Pro.Bio.Dic can provide an answer to all of the above and represent an authoritative and serviceable tool for society as a whole. Indeed, to sum up all the characteristics of the prototype, it is planned to be quality-based (professionally designed and compiled) but quantitatively available (web-based and publicly accessible); it will draw its entries from realia (specialised and non-specialised web-based texts), and thus be as close as possible to real societal needs; it will be regularly maintained up-to-date, edited and integrated; availing itself of the constant collaboration of a multidisciplinary supervising scientific committee, it will deal professionally, informedly, yet correctly from both a political and a religious view, with highly debatable and debated subjects; it will be in line with the legal framework supporting and the ethics informing the EU and use state-of-the-art web- and corpus-based, machine learning IT methodologies. In brief, it is believed it will fill an empty space at the national, European and international level, especially considering that the pilot model is designed to be in English, but a following step can involve turning it into a multi-lingual tool, starting from the EU official working languages (i.e. English and French).

Having already explained in detail the Pro.Bio.Dic's multidisciplinary research frameworks, target and methodologies in previous research (Vicentini / Grego *et al.* 2012), this paper will now report on the key stage of corpus-building. It will describe the criteria and processes involved in creating two large, statistically-valid reference corpora of bioethics texts – a specialised and a popular corpus, both necessary for the double-target and use envisaged – to be processed by means of the computer science techniques hinted at earlier, and to serve as the basis from which the entries of the electronic online tool will be drawn by means of concordancing software.

These two different corpora are needed to build the IT learning models necessary to extract the lemmas considered for inclusion in the dictionary. In particular, it will be necessary to assemble corpora in which the same terms used in bioethics (e.g. abor-

tion, stem cells, etc.) are found in non-bioethical contexts, so that the automatic classification model may learn and recognise semantically, but also lexically and grammatically, what is bioethical and what is not. As regards the specialised corpus, medicine texts dealing with concepts in a technical, professional way, without any primary bioethical interests will be used (see § 2.2). The same will be done with the popular corpus (see § 2.1), using newspapers, or sections thereof, dealing with topics distant from bioethics, but containing the same terms isolated in dissemination bioethical contexts. Once the lemmas have been extracted from the combined specialised and non-specialised corpora, both tested against corpora containing non-bioethical data, the computer science team will proceed with the phase of lemma extraction.

2. Corpus selection criteria: an overview

The label ‘popular corpus’ (hereinafter PC) will indicate here a collection of texts (articles, to be specific) taken from popular sources such as newspapers. ‘Popular’ will have to be understood in terms of English for Specific Purposes (ESP) vertical variation, as in Clôître and Shinn (1985), i.e. as aimed at a wide general, non-specialised audience. Opposed to that, ‘specialised corpus’ (hereinafter SC) will indicate the domain-specific collection of inter- and intra-specialistic texts on bioethics from specialised publications in the field. The general selection criteria identified for both corpora are as follows.

As regards the diachronic variation, both the PC and the SC will have to share the same time span. This will make them comparable and the extraction of information chronologically aligned. For instance, a ten-year period might be covered by both corpora, reflecting in their content what the situation was during those years both at the specialised (inter- and intra-specialistic) level and at the popular level, i.e. in the press. One sub-factor to consider will have to be the frequency of updating of the corpora. Once the Pro.Bio.Dic has gone online and started to be contributed to, how often will the definitions have to be updated and, therefore, how often will the corpora from which they are extracted have to be updated or, better, integrated with new content? This is going to depend basically on further practical factors such as the number of scholars and staff involved in the project and the funding available to carry on work on it. An annual or biannual updating frequency is recommended to keep the product viable and serving its underlying popularising purpose.

The diatopic variation will be represented, at this initial stage, by the inclusion of two main varieties of English: British English (BrE) and standard American English (AmE). From a quantity-based viewpoint – especially as regards the number of publications in science in general and in bioethics in particular – these varieties alone may well be considered representative of the English language as a whole. Of course, it

would only be sensible to evaluate the insertion of other major varieties such as Australian, Canadian, South African, Indian English, etc. However, two reflections must be made in regard to the diatopic dimension. The first is that, although a publication may be identified as belonging to one specific variety depending on its place of publication, the contents submitted to it cannot be guaranteed to belong to the same variety. This applies especially to the case of journals but also of newspapers and magazines, given the present globalized times. Only a deep, individual scrutiny of every single text in a publication could reveal the variety it employs, and it would still have to be confirmed by contacting its author(s). Indeed feasible, this would nonetheless prove an exquisitely sociolinguistic task that could itself constitute a research project of its own. The second reflection also stems from the effects of globalization and regards the increasing diffusion of the so-called Global English or English as a Global Language (Crystal 2003), English as a Lingua Franca (Seidlhofer 2004) and related phenomena. This ongoing trend of using English to communicate (in this case) science at the global level, on the one hand, conveniently collects all non-native varieties under one umbrella term. On the other, it tends to make efforts to identify non-native varieties little relevant, unless – again – for purely sociolinguistic aims, which are not (or not exclusively) those of this project. Similarly, if English as a lingua franca brings together those who write about science by facilitating communication across the world, the often international, inter-linguistic nature of research teams around the world makes it difficult to impossible to attribute authorship univocally to any of the individuals signing, for example, a research paper. For all the above reasons, the main publications in the bioethics field, irrespective of their place of publication, will be considered representative of English varieties at large, with a necessary prevalence of BrE and AmE reflecting the current statistic production and distribution of scientific research. The PC will try and include a choice of publications from English-speaking countries adopting a main standard variety of English. The criteria for building the PC will furthermore have to evaluate that the popular press, everywhere in the world, notoriously reports on major issues. If a specific bioethical debate happens to be going on in one specific English-speaking country at a given time during the period considered, the chance of that publication and of texts from that publication / country / variety being over-represented is very high. The possible calibration of such events by the statisticians in the project will have to be taken into consideration.

Concerning the diamesic level, the written media will be favoured, for the purposes of Corpus Linguistics analysis contemplated by the Pro.Bio.Dic. For the same reasons, but also because the project is itself a child of the digital revolution and of the new media that have widened the participatory frame, digital editions will obviously be preferred. As regards the choice between the online or offline editions of publications (with some

of them including exactly the same material, and others reserving special content for either edition), irrespective of the selection made, the consistency criterion must apply to all the publications of one corpus and if possible to those of both corpora.

The diastatic variation does not really apply to the SC, as research papers are expected to be written in academic English, sharing approximately similar standard features across countries. The PC, instead, is conceived as having to be representative of a wide sample of popular English. The classic ‘broadsheets vs tabloids’ distinction, which indeed can be represented in the selection, only strictly applies to UK newspapers (see e.g. Bell and Garrett 1998, Fairclough 1995). Newspapers published in the US and in other English-speaking countries are of course also placeable at various diastatic levels according to their readership. Well-known macro-distinctions such as that between the *Washington Post* (quality) and the *New York Post* (popular) in the US, for instance, may be integrated by a finer socio-linguistic evaluation of local readerships, especially as regards less well-known newspapers, i.e. those of smaller English-speaking countries.

The diaphasic variation in academic publications regards a small choice of genres. Regular research articles feature alongside with less frequent but no less important genres, e.g. the short article, the editorial, the review, etc. While diastatically they would all employ academic English, significant differences may apply to their quantity (length) and quality (e.g. a personal or impersonal stance and subsequent linguistic choices). Popular newspapers offer a much wider sample of popular genres, including the editorial, the feature article, the review, the agony aunt column, etc. The choice of from what genres to draw the texts for the corpora may vary, for instance by considering only one genre per corpus (e.g. the full research article for the SP and the feature article for the PC), but again it will have to be consistent for each publication used for each corpus.

Other factors to consider in the selection are of a more practical nature. Size and availability are the first concerns when very large archives are needed such as for the present project. Whether to employ existing archives or embark on putting together novel ones depends on both the existing or procurable financial and human resources, in turn depending on and influencing the time estimated or allotted to search and collect the material. The medium (support) of the archives are also fundamental, as digital texts are needed for Corpus Linguistics analysis, and digitizing printed matter of course requires time and also depends on financial and human resources. Any digital format, whether on- or off-line, e.g. the CD/DVD-ROM, the downloadable or just browsable internet archive, etc. The prices and possible limits (of time, quantity, users) of access to the archives also count. An important element too is the presence or absence of internal search tools: does the archive have its own

search engine, what kind of search engine is it, does it allow advanced (multiple criteria) searches, does it employ Boolean language, etc. – these are all possible issues.

2.1. Sample archives for the PC

Sample publications as identified by the general criteria set out in § 2 may be represented by the following examples of digital newspapers archives. These include a first group comprising two quality and two popular (in the sense of ‘tabloid’) British newspapers, and four corresponding US ones. Of course, more resources can and will probably be considered, especially according to the considerations made about the diatopic variation in § 2 above. Whereas for specialised publications full access is usually by subscription and sometimes only for research institutions (see the following § 2.2 on the SC), popular publications such as newspapers are obviously of common interest to the general public, which is also their intended readership and, as such, very often searchable archives are offered online for free. Reported below are therefore the direct links to the archives themselves.

Table 1 – Digital archives of British quality and popular newspapers

Resource	Features
<i>The Guardian (1821-2003) and Observer (1791-2003) Digital Archive</i> http://pqasb.pqarchiver.com/guardian/advancedsearch.html	<ul style="list-style-type: none"> • Period: both stop in 2003; do not include contemporary debate. • Archive is slowly being integrated, hopefully catching up with current time. • Available: online via website. • Price: £ 49.95 / month.
<i>The Financial Times Historical Archive (1888-2008)</i> http://gale.cengage.co.uk/financial-times-historical-archive.aspx	<ul style="list-style-type: none"> • Period: 1888- 2008. • Available: online via website. • Price: subscription only open to institutions, price not public.
<i>The Times Digital Archive (1785-2006)</i> http://gale.cengage.co.uk/times-digital-archive/times-digital-archive-17852006.aspx	<ul style="list-style-type: none"> • Period: 1785-2006. • Available: online via website. • Search tools: own search interface, engine, viewer. • Price: £ 1,413.75 ca. (JISC Collections 2012) / year.
<i>The Daily Express Archive (1900-current)</i> http://www.ukpressonline.co.uk/ukpressonline/?sf=express	<ul style="list-style-type: none"> • Period: 1900 to present day. • Available: online via website • Price: £4,626.09/year for Universities.

Table 2 – Digital archives of US quality and popular newspapers

Resource	Features
<i>The New York Times Article Archive (1851-present)</i> http://www.nytimes.com/ref/membercenter/nytarchive.html	<ul style="list-style-type: none"> • Period: 1851-present day. • Available: online via website. • Price: post-1986: first 100 articles free, no limits for subscribers (subscription: ca. \$ 180.00).
<i>The Washington Post (1877-current)</i> http://www.washingtonpost.com/wp-srv/newssearch/	<ul style="list-style-type: none"> • Period: 1877-present day. • Available: digital downloads (various formats: *.txt, *.PDF, etc.). • Price: \$29.95/25 articles.
<i>The Wall Street Journal (1979-present)</i> http://online.wsj.com/public/page/public_home_search.html	<ul style="list-style-type: none"> • Period: 1979-present. • Available: digital downloads. • Price: \$2.95/article older than 90 days.
<i>The New York Post Archive (1998-present)</i> http://www.nypost.com/nypostarchives	<ul style="list-style-type: none"> • Period: 1998-present. • Available: Online html versions. • Price: Free.

2.2. Specialised corpus

A specialised corpus is a corpus which includes texts on a specific subject area. This specialisation has no definite boundaries, but some peculiar criteria need to be established to specify the type of the texts in question (Sinclair 2004). Typically such corpora may contain either some texts specialised in terms of a particular genre, topic (i.e. art, politics, medicine), or sub-domain (i.e. anatomy, ophthalmology, informed consent forms, informative material on HIV/AIDS). The specialised corpus on bioethics to be assembled for this project will be divided into two sub-corpora as the distinction in terms of target reader and editorial context has proved to be significant.

The former sub-corpus comprises specialised publications specifically dealing with bioethics, such as journals (in both print and online format), books, websites, etc. The number of publications and websites in the last decades testifies to a growing demand for bioethical competence, especially in specific domains, such as nursing and engineering (see Johnstone 2004 and Vallero 2007). The table below shows some examples (both websites and specialised publications) of resources selected for this sub-corpus through Google search queries (keywords: bioethics journal OR review) and meta-resources (i.e. Bioethics Resources on the Web <http://bioethics.od.nih.gov/index.html>)

Table 3 – Specialised sub-corpus focused on bioethics

Resource	Features	Description
<i>Journal of Medical Ethics</i> http://jme.bmj.com/	International, UK-based. Online & print. Monthly. Launch date 1975. Requires subscription. Some contents free. PDF/HTML.	<i>Journal of Medical Ethics</i> is a leading international journal that reflects the whole field of medical ethics. The journal seeks to promote ethical reflection and conduct in scientific research and medical practice. It features original articles on ethical aspects of health care, as well as case conferences, book reviews, editorials, correspondence, news and notes. JME has Editorial Board members from all around the world including the US, Europe, Australasia and Far East.
<i>Medical Humanities</i> http://mh.bmj.com/	International, UK-based. Online & print. Bi-annually. Launch date 2000. Requires subscription. Some contents free. PDF/HTML.	<i>Medical Humanities</i> is a leading international journal that reflects the whole field of medical humanities. It features original articles relevant to the delivery of healthcare, the formulation of public health policy, the experience of being ill and of caring for those who are ill, as well as case conferences, educational case studies, book, film, and art reviews, editorials, correspondence, news and notes. Medical Humanities has Editorial Board members from all around the world.
<i>American Journal of Bioethics</i> http://www.bioethics.net/	US, US English. Online & print. Monthly. Launch date 1999. Contents can be browsed by topics. Requires subscription. Some contents free. PDF/HTML.	<i>The American Journal of Bioethics</i> (AJOB) is a monthly peer-reviewed academic journal of bioethics published by Taylor and Francis. It publishes target articles, peer commentary, book reviews, qualitative research, literary criticism, photography and graphic arts, and comments on developments in law and medicine.
<i>The Journal of Clinical Ethics</i> http://www.clinicalethics.com/	US, US English. Online & print. Quarterly. Requires subscription. HTML.	<i>The Journal of Clinical Ethics</i> is written for and by physicians, nurses, attorneys, clergy, ethicists, and others whose decisions directly affect patients. JCE is a double-blind, peer-reviewed journal indexed in PubMed, Current Contents/Social & Behavioral Sciences, the Cumulative Index to Nursing & Allied Health Literature, and other indexes. The Journal of Clinical Ethics is an American Society of Bioethics and Humanities partner journal.

Resource	Features	Description
<i>Cambridge Quarterly of Healthcare Ethics</i> http://journals.cambridge.org/action/displayJournal?jid=CQH	International, UK-based. Online & print. Quarterly. Launch date 1992. Requires subscription. HTML	<i>The Cambridge Quarterly of Healthcare Ethics</i> is designed to address the challenges of biology, medicine and healthcare and to meet the needs of professionals serving on healthcare ethics committees in hospitals, nursing homes, hospices and rehabilitation centres. The aim of the journal is to serve as the international forum for the wide range of serious and urgent issues faced by members of healthcare ethics committees, physicians, nurses, social workers, clergy, lawyers and community representatives.
<i>The Hastings Center Report</i> http://www.thehastingscenter.org/Publications/HCR/	International, US-based. Online and print. Bi-monthly. Requires subscription. Some contents free. HTML.	<i>The Hastings Center Report</i> is a bi-monthly journal that promotes incisive and balanced inquiry into the ethical issues in health, medicine, and the environment. It includes essays, commentary, original scholarly articles, and occasional Special Reports. The Hastings Center is an independent, non-partisan, and non-profit bioethics research institute founded in 1969.
<i>IRB: Ethics & Human Research</i> http://www.thehastingscenter.org/Publications/IRB/Default.aspx	International, US-based. Print. Bi-monthly. Launch date 2007. Requires subscription.	<i>IRB: Ethics & Human Research</i> explores issues in research with human subjects, including findings and analyses of empirical studies. Six issues are published each year, containing scholarly articles and columns. All submissions are peer-reviewed. IRB's readership includes administrators and members of institutional review boards, scholars, and researchers. The journal is issued by the Hastings Center (see above).
<i>The Journal of Medicine and Philosophy</i> http://jmp.oxfordjournals.org/	International, UK-based. Online and print. Bi-annually. Launch date 1979. Requires subscription. Some contents free. PDF/HTML	<i>The Journal of Medicine and Philosophy</i> is one of the leading scholarly journals in bioethics and the philosophy of medicine. Its contributors and focus are international, addressing bioethical concerns across the world. Significant attention has been given to bioethics and foundational issues in health care policy in North and South America, Europe, and Asia. The journal's concerns range from clinical bioethics to studies in the philosophy of medicine, such as explorations of the nature of concepts of health and disease, as well as the character of medical explanation.

Resource	Features	Description
<i>Kennedy Institute of Ethics Journal</i> http://muse.jhu.edu/journals/kennedy_institute_of_ethics_journal/	US, US English. Online and print. Bi-annually. Launch date 1991. Requires subscription. Some contents free. PDF/HTML.	<i>The Kennedy Institute of Ethics Journal (KIEJ)</i> offers a scholarly forum for diverse views on major issues in bioethics, including analysis and critique of bioethics theories such as principlism and feminist perspectives in bioethics; the work of federal bodies such as the President's Council on Bioethics; and a wide range of topics such as enhancement technologies, health care reform, stem cell research, and organ transplantation. The Kennedy Institute of Ethics is one of the world's premier bioethics institutes.
<i>Nursing Ethics</i> http://nej.sagepub.com/	US, US English. Online & print. Bi-monthly. Launch date 1994. Requires subscription. PDF.	<i>Nursing Ethics</i> is an international peer reviewed journal that takes a practical approach to this complex subject and relates each topic to the working environment. The international Editorial Board ensures the selection of a wide range of high quality articles of global significance. This journal is a member of the Committee on Publication Ethics (COPE)
<i>The Journal of Law, Medicine, and Ethics</i> http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%201748-720X	US, US English. Print. Quarterly. Launch 1973. Requires subscription. PDF .	<i>Material published in The Journal of Law, Medicine & Ethics (JLME)</i> contributes to the educational mission of The American Society of Law, Medicine & Ethics, covering public health, health disparities, patient safety and quality of care, and biomedical science and research. It provides articles on such timely topics as health care quality and access, managed care, pain relief, genetics, child/maternal health, reproductive health, informed consent, assisted dying, ethics committees, HIV/ AIDS, and public health.
<i>Bioethics</i> http://www.blackwellpublishing.com/journal.asp?ref=0269-9702	International, US-based. Online and print. Quaterly. Launch date 1987. Requires subscription. Some contents free. HTML.	<i>Bioethics</i> provides a forum for well-argued articles on the ethical questions raised by current issues such as: international collaborative clinical research in developing countries, organ transplants and xenotransplantation, ageing and the human lifespan, AIDS, genomics, and stem cell research.

Resource	Features	Description
<i>Eubios Journal of Asian and International Bioethics</i> (EJAIB) http://eubios.info/EJAIB.htm	International, US English. Online. Bi-monthly. Launch date 2000. Free. Supported by UNESCO. PDF.	<i>EJAIB</i> is the official journal of the Asian Bioethics Association (ABA). Its aim is to publish research papers, and relevant news, and letters, on topics within Asian Bioethics, promoting research in bioethics in the Asian region, and contributing to the interchange of ideas within and between Asia and global international bioethics. Asia is defined for the general purposes of this journal as the geographical area, including the Far East, China, South East Asia, Oceania, the Indian subcontinent, the Islamic world and Israel.
<i>Science and Engineering Ethics</i> http://www.springerlink.com/content/1471-5546	Germany, UK English. Online. Quarterly. Launch date 1995. Requires subscription. Various contents open access. PDF/HTML.	A quarterly journal with articles on ethical issues of concern to scientists and engineers. Special topic issues. Includes many articles on responsible conduct in research.
<i>Yale Journal of Health Policy, Law, and Ethics</i> http://www.yale.edu/yjhple/	US, US English. Online. Bi-annually. Launch date 2001. Requires subscription. Some contents free. PDF.	<i>The Yale Journal of Health Policy, Law, and Ethics</i> is a biannual publication of the Yale Schools of Law, Medicine, Epidemiology and Public Health, and Nursing. The Journal strives to provide a forum for interdisciplinary discussion on topics in health policy, health law, and biomedical ethics. It targets a broad and diverse readership of academicians, professionals, and students in medicine, law, and public health, as well as policy makers and legislators in health care.

The latter sub-corpus consists in specialised medical publications that are not solely centred on bioethical issues (Table 4). It also includes journals (both in print and online format), books, websites, web portals, etc. Some of these resources, such as *PubMed.org*, consist in huge libraries of specialised articles.

All the resources of both sub-corpora are to be inserted, catalogued and indexed in a database according to these criteria: topic, text genre, availability, price, target reader, frequency, content, usability, and other meta-data aspects (see § 2). This will help establish what contents are most suitable for the project, as the two sub-corpora are expected to produce a large amount of data.

Table 4 – Specialised sub-corpus not focused on bioethics

Resource	Features	Description
<i>US National Library of Medicine PubMed.org</i> www.pubmed.org	US-based. Online. Web portal. Requires subscription, some contents are free. HTML and XML.	US National Library of Medicine National Institutes of Health. <i>PubMed</i> comprises more than 22 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites.
<i>British Medical Journal</i> www.bmj.com	UK English, international. Online and print. Weekly in three editions. Launched in 1840. Requires subscription, some contents are open access. PDF and HTML.	The <i>British Medical Journal</i> is an international peer reviewed medical journal and a fully "online first" publication. All articles appear on bmj.com before being included in an issue of the print journal (continuous publication). The website is updated daily with the <i>BMJ</i> 's latest original research, education, news, and comment articles, as well as podcasts, videos, and blogs.
<i>Medical Journal of Australia</i> www.mja.com.au	Australian English. Australasia-based. Online and print. Bi-monthly. Requires subscription, some contents are open access. HTML and PDF.	The <i>Medical Journal of Australia (MJA)</i> is Australia's leading peer-reviewed general medical journal. It covers all the important issues affecting Australian health care, publishing the latest Australian clinical research, evidence-based reviews, clinical practice updates, authoritative medical opinion and debate, and developments within the humanities with respect to medicine. The <i>MJA</i> encourages comment and debate from readers.
<i>Canadian Medical Association Journal</i> www.cmaj.ca	Canada-based. Online (weekly) print (18 issues per year). Launched in 1911. Open access. PDF and HTML.	<i>CMAJ</i> showcases innovative research and ideas aimed at improving health for people in Canada and globally. It publishes original clinical research, analyses and reviews, news, practice updates and thought-provoking editorials. <i>CMAJ</i> 's impact factor is 8.2 and the website receives over 2 million unique visitors a year.

In order to show the significance of the division between the two sub-corpora in terms of communication type, two examples from the resources described above can now be discussed: the *Journal of Medical Ethics* (first sub-corpus) and the *British Medical Journal* (second sub-corpus). The first is an international specialised journal (although it is UK-based). It requires subscription (but some sample contents are free), it is published in both print and online version, the online contents are available in both PDF and HTML format. The main text genre is the academic paper. The *Journal of Medical Ethics* is specialised in bioethics, the communication type is intraspecialistic, although this discipline is per se multidisciplinary. The main issues actually concern matters of medicine, law, philosophy and even psychology (especially as for the relationship between healthcare specialist and patient). The second example of specialised resource not exclusively dealing with bioethical issues is the *British Medical Journal*. It is also UK-based and requires subscription (but some sample contents are free), it is published in both print and online version, the online contents are available in both PDF and HTML format. The main text genre is academic paper. The communication type is intraspecialistic and interspecialistic, and lexis is mainly technical. For the purposes of this project the multidisciplinary nature of bioethics as a subject area and the inter- and intraspecific communicative dynamics play therefore a key role in the design of the text corpora.

3. Conclusions

The phase of selection of the criteria needed to correctly assemble the two corpora herein described is being accompanied by some preliminary tests on limited and small portions of texts carried out by the computer science and the linguistic teams involved in the project. These are necessary to a) verify whether the methodology to be employed is valid; b) assess which corpora / texts / documents could be more suitable for and representative of the scopes envisaged and c) develop methods and algorithms capable of extracting sets of terms to be included in the dictionary. After this preliminary phase, the computer science team will be able to pass on the lemmas extracted to the committee of experts for evaluation, with the top-ranked terms being the most authoritative candidates for inclusion. Several tests are needed to develop many such algorithms to associate to each extracted term a numerical estimate of the probability that the term is indeed bioethics-related, as well as to generate lists of terms characterised by the smallest possible quantity of spurious terms. One such recent sample tests consisted in the selection of 100 specialized texts on bioethics, 100 specialized texts belonging to a field / discipline other than bioethics, 200 (150 for machine training, 50 for testing) popular texts on very different topics than

bioethics, 20 popular texts on bioethics for testing, 20 popular texts on topics close to bioethics, according to the methodology summarised in § 1. This proved that the machines can learn to recognise texts dealing with bioethics and thus validated the methodology devised. Other sample tests on the possible corpora to include in the project will contribute to making the latter more robust and verifying the consistency and representativeness of the sets of documents / texts selected for analysis.

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Alessandra Vicentini, Kim Grego, Daniele Russo

Pro.Bio.Dic. projekt

SAŽETAK

Ovaj članak proizlazi iz dugoročnoga istraživačkoga projekta, koji je u tijeku, u području medicinske etike i bioetike. U projektu su uključeni različiti timovi stručnjaka iz medicine, jezikoslovja, računalnih znanosti i filozofije. Cilj ovog rada je izrada prototipa digitalnoga bioetičkoga rječnika (Pro.Bio.Dic.) za poboljšanje u razumijevanju pojmova iz područja bioetike koja se spomenutim rječnikom žele postići. Potom se navode planovi kojima se želi osigurati kvalitativna i kvantitativna potpora izgradnji budućega korpusa rječnika. U ovome članku prikazana su načela u odabiru leksičkoga materijala odnosno skupine tekstova na kojima bi se leksik temeljio te nalaze se primjeri digitalnih izvora i osnovne karakteristike za nespecializirani i specijalizirani dio korpusa.

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GODIŠNJAK
Katedre za društvene
i humanističke znanosti u medicini
Medicinskog fakulteta Sveučilišta u Rijeci

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The cult of saints-healers – an alternative and opposition to the official medicine in medieval Bulgaria

ABSTRACT

Medieval Bulgarian medicine from the IX-XV c. was characterized by the low occurrence of medical services, by their inaccessibility, as well as by the widespread disappointment in learned physicians. This led to the search for alternative healing practices. Different means and methods were developed for filling up the deficit of healthcare services:

- Self-treatment and self-proclaimed healers,
- Healing through sacred objects,
- Faith in saints and their relics.

Evidence of the existence of a Bulgarian tradition of healing practices can be found in the considerable number of medical medieval works of utilitarian application, such as manuals, intended to be used by both – healers and patients.

Pagan practices of worshipping magic items were transformed into the worship of objects of religious function – the cross, the Scriptures, holy water, holy oil, icons, etc., to which miraculous healing and saving powers were attributed.

The cult of saints is highly utilitarian and focuses on the meeting of health care needs. Thus a parallel between self-proclaimed healers and saints was drawn, as saints were also believed to have been able to cure the faithful through God's power. This cult has two aspects:

- their supernatural powers, which the Saints had while still alive and
- the miracles, associated with their relics.

In the primitive medieval health care system, primary medical practice was not entrusted to the medical professionals, but to the saints-healers and their relics. Seeking assistance and treatment from them was also a way to deny scientific medicine.

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European medicine has its roots in the pagan societies of Ancient Greece and Rome, and combines science with ethics and deontology. Its natural continuation is the medicine of Byzantium, which, based on the achievements of the old schools and the accumulated experience, as well as the new findings, developed the clinical practice, pharmacology and pharmacognosy. There it does not only build upon ancient medical science, but also adds to it the concept of Christian charity.

Medicine in Medieval Bulgaria

Because of the fact that from the VIII century onwards Bulgarians were neighbors and often subjects of Byzantium, they entered in a continually deepening cultural interaction with the Empire, in a cultural diffusion, which not later than in the XII century combined them in a single cultural community.¹ Byzantine influence can be seen in every aspect of medieval Bulgarian culture, including the development of medicine. That influence is the main reason why the ancient achievements accepted by Byzantine medicine also found their way in the old Bulgarian medical science of the IX–XV c. period.

John Exarch's *Shestodnev* from the end of the IX century is an example of the good knowledge of the Byzantine and Medieval Literature in Medieval Bulgaria. His broad knowledge of many ancient scientific authorities, many of whom are doctors² far exceeds his main source – Basil the Great's *Shestodnev*. Since most of the names cited were not present in the source, it is obvious that they had been drawn from other Byzantine authors. The description of the human body had been derived from Aristotle's *Animal History*, based on a Byzantine compilation, put together by the monk Meletius. John Exarch added to it his own thoughts, quoted Plato, mentioned the famous Hellenistic doctor Alkmey Krotonidis of VI BC.³

The old Bulgarian translation of the Byzantine compilation Galen's *Reflections on the Teachings of Hippocrates*, is another example of the penetration of antique scientific models in Medieval Bulgaria.⁴ A huge number of references to ancient and medieval doctors can be found in the *Hilandar Medical Code*.⁵

Worship of ancient art and values, and their reception in the Christianized culture of the Byzantine community manifested in the inclusion of many eminent authori-

¹ Dmitrij Obolenski, *Vizantijskata obshtnost*, Sofia 2001, p. 361–386

² Joan Exarch, *Shestodnev*, Sofia 2000

³ Čvetan Krăstanov and Ivan Dujchev, *Estestvoznaniето v Srednovekovna Bălgaria* (sbornik s istoricheski izvori), Sofia 1954, p.571

⁴ *Stara Bălgarska Literatura*, Vol. V, *Estestvoznanie*, p. 516–525

⁵ Mincho Georgiev, *Ibid*, p. 20–21

ties on ancient thought, including doctors, in church painting. The portraits of Aristophanes, Diogenes, Socrates, Aristotle, Galen, Plato, Plutarch, Thucydides, Solon, Pythagoras, Homer, etc. were widely spread in the orthodox Byzantine world, including many locations in Bulgarian lands. Images of pagan sages can be seen in the frescoes in the refectory of Bachkovski Monastery, in the women's section of the Church of the Nativity of Christ in Arbanasi⁶, in the Boboshevo Monastery, etc. Although these frescoes mentioned are from a later period - XVII c., undoubtedly similar images, found in different places, independently of one another, are based on the centuries-old tradition in icon-painting models of the post-Byzantine world, which we cannot trace further back, because of the lack of earlier models. The inclusion of ancient philosophers, writers and scientists in church paintings is done in recognition of the significance of their activity, as well as their moral qualities. Their depiction with halos in many of those paintings puts them on an equal footing with the saints.

The establishment of Christianity also enriches the moral concept of medicine. The age's moral behest – love thy neighbor – was added to the ethical norms of the age of Hippocrates. It was this command to offer help to all who might need it, that turned into a catalyst for the development of medicine and healthcare.

Medical Care and Hospitals in Bulgaria

In harmony with the teachings of Christ to love one's neighbor, initially in Byzantium and then in other countries, a number of charity institutions arose – inns, orphanages, nursing homes, and poorhouses at the monasteries – where the homeless and ill people could find shelter and food. At a later point those facilities grew into hospitals, where inhabitants of the area received medical care⁷. The beginning of this tradition in charity activities and the building of hospitals and poorhouses is associated with the Bishop of Constantinople John Chrysostom.⁸

In Bulgaria, a few centuries later, we have only fragmentary data about the creation of inns, hospitals and poorhouses at some monasteries in the Byzantine fashion. Most reports do not allow for definite conclusions, but only conjecture. It is a widespread opinion that the earliest such institutions occurred at the Patleina Monastery near Preslav and at the St. Pantaleon Monastery near Ohrid.⁹ Such assumptions, however, are based more often on the name of the monastery patron St. Pantaleon

⁶ Ivan Dujchev, *Drevnoezicheski Misliteli i Pisateli v Starata Bălgarska Živopis*, Sofia 1978

⁷ Mincho Georgiev, *Ibid*, p. 145

⁸ prot. Georgi Florovski, *Iztochnite Otzi ot IVv*, Moskva, 1992, p. 312

⁹ *Istoria na Bălgarskata Srednovekovna Literatura*, edited by Anisava Miltanova, Sofia 2008, p. 222

– the saint-healer (wherefrom the name of the Patleina region has been derived) than on concrete archaeological evidence. The opinion (formulated half a century ago) about the existence of a hospital and orphanage in the area of Avradaka near Preslav in the IX–X c.¹⁰ today is considered to be untenable.¹¹

More detailed information on hospitals can be found in the Typicon of the Bachkovo Monastery from the XI c., wherefrom we learn that on cold days the three monastery inns provided food, shelter and warmth to all travelers and the poor. Also, ill people could stay for three or more days (if necessary) until they felt better.¹²

It is evident that the data concerning hospitals and organized health care in medieval Bulgaria is extremely scarce. This leads us to the conclusion that such events are rare and almost not present as a phenomenon in the life of Bulgarians from this period, and where found, they are often of Byzantine origin. This was the case with Bachkovo Monastery, founded by the Bakuriani brothers, Georgians at Byzantine service, at a time when the Bulgarian state did not exist and for nearly two centuries (1018–1195) was part of the Byzantine Empire.

Physicians and People's Disappointment in Them

As for the learned physicians, as well as the medical practice in medieval Bulgaria, the lack of written sources does not allow for extensive comments. We only have a few names who could be classified as physicians of Bulgarian origin. These are Eustathius the doctor, who lived in Meglen in XI–XII c.¹³ and Basil the Physician, a Bogomil preacher, whose profession can be deduced from his name, and about whom a number of Byzantine authors wrote.¹⁴, as well as the Synodicon of Tsar Boril of 1211.¹⁵ Hodja Bulgar, who was famous in the Arabian Caliphate in the XII c.,¹⁶ should not be included in this list because he originates from Volga Bulgaria.¹⁷

¹⁰ Nikolaj Mavrodinov, *Starobălgarskoto Izkustvo* 1959, p. 187–190; Neli Chaneva-Dechevska, *Čärkvi i Manastiri ot Veliki Praslav*, Sofia 1980, p. 128–135

¹¹ Totju Totev, *Novi Nabljudenija i Danni za Oblika na Grazhdanskata Architectura prez Parvoto Bylgarsko Tzarstvo*, <http://preslav.shu.bg/webs/Deinost/archive/TOM1/T.%20Totev.pdf>

¹² *Typicon Bacuriani*, GIBI VII, p. 58

¹³ Ivan Dujchev, "Prinosi kām Srednovekovnata Bălgarska Istoria" in *Godišnik na Plovdivskata Narodna Biblioteka i Muzej* 1937–1939, 1940

¹⁴ Ioahannes Zonaras, *Epitome Historiarum*, GIBI VII, *Izvori za Bălgarskata Istoria*, p. 205. Anna Komnene, Alexias, Berlin. New York 2001. XV 8, 3–10, p. 540–542

¹⁵ *The Synodicon of Tsar Boril*, edited and translated by Ivan Bozhilov, Anna-Maria Totomanova and Ivan Bilyarski, Sofia 2010., p. 304

¹⁶ Petar Koledarov, 1974, p. 66–69

¹⁷ G. M. Davletschina, *Volzhskaja Bulgarija: Duchovnjaja Kultura (Domongolskij Period, X - nach. XIII vv.)*, Kazan, 1990 River. 172

But there were also physicians of foreign origin, working in Bulgaria. John Petritzi, a famous Georgian physician and philosopher, spent some time in Bachkovo Monastery.¹⁸ Theodorites, a monk and physician from Constantinople, lived in the capital city of Veliko Tarnovo in the XIV c., as evidenced in the Passional of St. Theodosius of Tarnovo.¹⁹

In the IX c. John Exarch stated in his aforementioned treatise on the structure of the human body that knowledge of organs and body parts was of a special character and therefore it should have been left to the physicians.²⁰ This shows that even in this early period in history the importance of the medical profession and its inherent specific knowledge and skills were recognized. But did people practicing the medical profession in medieval Bulgaria have the necessary professional and moral qualities? In most cases we come across evidence of inappropriate, unprofessional and sometimes unethical practices by physicians. The common character in literature of an ill man spending his entire wealth on doctors and not finding relief is most probably based on real events – patients of various complaints must have been treated by ineffective and avaricious physicians.

Both Byzantine and Bulgarian hagiographic literature after the X c. is full of examples of unfortunate patients, victimized by greedy and incompetent physicians, consuming their entire wealth and not achieving the desired results. Kekaumenos, a Byzantine author from the XI c., expressed genuine dislike of physicians, who he considered charlatans, because of their habit to prolong the treatment long enough, so as to take all of the patient's money. The author, therefore, advises his readers to avoid physicians and utilize methods of self-treatment instead.²¹ In Bulgaria we find the same motif in Theophylact of Ohrid (XI - XII century.) He tells the story of a woman, who "...spent most of her fortune on physicians, but having found their treatment to be weaker than her pain, decided to resort to free treatment. She used the relics of the saints instead..."²² Euthymius of Tarnovo (the end of the XIV c.) wrote of a woman, who "...was the victim of a terrible suffering. Her breasts were corroded by the severe illness and even though she spent too much of her wealth on physicians, she found no relief."²³

From the sources cited one could conclude that the learned physician was a marginal figure, who had little presence in the life of the medieval Bulgarians, or pro-

¹⁸ Mincho Georgiev, *Ibid*, p. 145

¹⁹ Prostranno Zhitie na Teodosij Tărnovski ot Patriarch Kalist, SBL Vol. IV, p. 452

²⁰ Joan Exarch, p. 263

²¹ A. P. Kajdan and Ann Wharton Epstein *Ibid.*, p. 178; Genadij Litavrin, *Soveraj i rasskazj Kekavmena*, Moskva 1972, p. 225

²² Theophylact of Ohrid, *Măchenichestvoto na 15-te Tiveriopulski Măcheniči.*, GIBI Vol. IX, p. 77

²³ Euthymius of Tarnovo. *Prostranno Žitie na Philotea Temniška*, SBL, Vol. IV, p. 208

vided no benefit to their health due to incompetence and greed. The disappointment with the medical profession, the insufficient availability of medical services, and their high price finally led to the search for alternative healing practices. Different means and methods were developed for filling up the deficit of healthcare services:

- Self-treatment and self-proclaimed healers,
- Healing through sacred objects,
- Faith in saints and their relics.

Self-treatment and Folk Medicine

The fragmentary and scarce information about physicians and medical care at clinics could be accepted as proof that in Medieval times people relied more on self-proclaimed healers to get help for their ailments, than on learned physicians. The healing practices of mediums, medicine-men and magicians, as opposed to officially sanctioned medicine, are a common theme in Old Bulgarian literature. In the X c. Cosmas the Priest urged his congregation not to trust the self-proclaimed healers, even if the latter were able to cast out demons and raise the dead.²⁴ In the Passional of Theodosius of Tarnovo we find an interesting description of practices of tree worshipping for the sake of healing.²⁵

Theophanes of Rila (XV c.) testifies to the common search for a cure from "magicians" and the widespread folk healing practices of pagan origin in the Late Middle Ages²⁶ In the XVII c. Joseph the Bearded wrote: "I have been to many lands, but I have never seen so many mediums and witches as in this Bulgarian land of ours."²⁷ Although the aforementioned work dates from a later period, it gives us an idea of the centuries-old Bulgarian folk healing practices.

Folk medicine (in its oral and written form) developed as an alternative to scientific medicine during the Middle Ages²⁸. The existence of a considerable number of Medieval works with utilitarian applications (used as guides) on the subject of medicine can be viewed as proof of the presence of a Bulgarian tradition of healing.

The documents of the old Bulgarian medical literature illustrate the different layers of medieval medical knowledge and its development over a long period of time.

²⁴ Cosmas the Priest, *Beseda protiv Bogomilite*, Sofia, 1998, p.87

²⁵ *Prostranno Zhitie na Teodosij Tărnovski ot Tărnovski Kalist*, SBL Vol. IV, p. 452

²⁶ Petăr Dinekov, *Ibid.*, p. 433–434

²⁷ Donka Petkanova, *Ibid.*, p. 127

²⁸ Donka Petkanova, *Ibid.*, p. 123

Their large number and distribution is evidence of a widespread use of folk healing art. A combination of three components is mentioned therein: a strong pagan tradition, the Byzantine medical culture and the ancient understanding of calendar and astrological influences on human life and health, reflected therein, as expressed in *Menaion* and the later *Lunnitsi*²⁹ Some texts reflect the Byzantine model in a greater degree: "Medical Art for All Occasions", dietary works, etc. Traditional experience and knowledge prevails in other sources, for example the earliest copy of medical advice, retained in "The Psalter of Dimitri the Oltarnik" (old Bulgarian Glagolitic psalter from the X-XI c.) under the name of "The Remedies of St. Cosmas". It would be interesting to point out that the text has no Byzantine counterpart and contains advice for the treatment of different diseases: swelling, fever, mad dog or wolf bites, limb spraining or fracture, infected wounds, coughs, colds, skin problems and more.

The written sources of common medicine are the collections of prescriptions – the so called *Lekovnitsi* and apocryphal prayers³⁰. The *Lekovnitsi* represent a later recording (most of them date back to the XVII c. or later) of a centuries-old oral tradition of medical knowledge. In them we can find prescriptions, copied from much older Byzantine treatises. This is proof that some of them had been originally written in Byzantium and were then used for many centuries by Bulgarian healers. Alongside the names of ailments, herbs and food as cure, one can find incantations, magical formulas, and prayers in them. Their instructions and prescriptions had been practically tested, and their placement in collections of various content and utilitarian intended purpose proves that they were used as manuals, both by self-proclaimed healers and the very patients for the purposes of self-help and self-treatment.

Apocryphal prayers and incantations for protection against ailments were an exceptionally productive medieval genres which is yet another proof of their wide application. They first appeared from Byzantium in the X c. and remained in circulation until the XIX c. The first preserved healing prayers were included in the Breviary of Sinaia (XI c.), (also known as *Euchologium Sinaiticum*).³¹ Folklore incantation formulas turned into recovery prayers (with fixed texts), published in prayer books and have as their aim the attainment of magical healing.

²⁹ Istoria na Bălgarskata Srednovekovna Literatura, p. 223 –224

³⁰ Donka Petkanova, Ibid., p. 123

³¹ Istoria na Bălgarskata Srednovekovna Literatura, p. 224 –225

Belief in the Healing Properties of Objects

Faith in the magic power of objects is indeed ancient and represents the materialization of an idea with contagious action and euchological intended purpose. The wearing of amulets and objects of apotropaic power has been a human trait from the dawn of mankind's struggle for survival and finding of our proper place in the universe. This belief and the associated ritual routine have their roots in pagan times, but they were later incorporated in Christianity and transformed into the honoring of a number of cult objects: the cross, the Scriptures, holy water, holy oil, icons, etc. They were seen not only as sacred religious objects, but were attributed miraculous healing and saving powers. The miraculous power of the cross was described in a number of medieval works, of which we will only mention here *The Saga of the Iron Cross*.³²

Literature has often been referred to as a mirror of reality, and therefore we could deduct from it that the Medieval Bulgarian sought healing and deliverance in everything that surrounded him/her, and was accessible in spacial and financial terms - signs, dreams, inanimate objects, relics of saints, etc.

The Cult of Saints-Healers

The trust in saints' assistance is the surest means of filling and addressing the shortage of health care in medieval Bulgaria. Starting with the reports about the earliest Bulgarian saints of the X c., such as St. Boris-Michael I, Prince of Bulgaria and Clement of Ohrid, and going further to the literary monuments of XVIII c., literature is replete with examples of the popular veneration and worship of saints, and miraculous healings as a reward for faith and repentance. The cult of saints is highly utilitarian and focuses on the meeting of health care needs. It has two aspects related to the two phases of their manifestation and the functions of saints:

- their supernatural powers and their capabilities, while they were alive,
- as well as the wonders, performed by their relics and tombs.

Both in folk beliefs, and in literary sources, there exist the examples of saints, who were considered capable of healing and resurrection practices, even within the period of their natural lives. In one of the passionals of John of Rila the following can be found: "And many resorted to him, bringing their sick. And having been cured, with the prayers of the saint, they headed back home."³³

³² Ancho Kalojanov, Maria Spasova and Todor Mollov, "Skazanie za Železnija Krăst" i Epochata na Čar Simeon, Veliko Tărnovo, 2007, p. 191– 211

³³ Proložhno Zhitie na Ivan Rilski ot Stishnija Prolog, SBL, Vol. IV, p. 133

Information contained in the hagiographic sources is often more specific than expected, and we can therefore deduce that such beliefs have originated as a result of the faith in the documentary truthfulness of the data and real magical abilities.

On the one hand, in the extraordinary and devout life of saints healing abilities were so common that they became a necessary and almost invariable sign of the initiation of saints. On the other hand, the emphasis on their sanctity and God's sanction in hagiography promotes common belief in their healing powers, thus almost completely displacing physicians from the healthcare focus. Religious reverence for the saints-healers, and the fact that common people sought help and treatment from them, ultimately resulted in the rejection of scientific medicine. In the countenance of saints such as John of Rila, Prohor Pčinjski, Joachim of Osogovo, Gabriel of Lesnovo, Philothea of Thrace (of Argesh), Petka of Tarnovo and others, there are collective features of the saint-healer and the self-proclaimed healer. The common understanding was that a healer (because of his compassionate and selfless work) is a companion of Christ. Thus a parallel between self-proclaimed healers and saints was drawn, as saints were also believed to have been able to cure the faithful through God's power.

The cult of the relics of saints (a link between God and earthly life) emerged with the development of worship of the early saints. It demonstrates to the fullest the pragmatic nature of the faith in saints-healers. Relics are the most tangible and material basis of honoring those saints and touching them is considered to be the best guarantee for securing the desired results. It is not surprising that honoring the saints in medieval Bulgaria has utilitarian nature. It stems from the recent pagan past of the population. Until the adoption of Christianity in the IX c., people had sought deliverance in the touching of healing stones and magic items, and it is only natural to replace the object, but keep the mechanism of religious relations. As early as the second half of X c. the worship of saints was inextricably linked to the worship of their relics. Cosmas the Priest described the Bogomil heretics in the following way: "And by refusing to glorify the saints, they (the Bogomils) also reject God's miracles, perpetrated by their relics through the power of the Holy Spirit."³⁴ This quote could also serve as evidence of how wide spread relics were at the time. Evidence of the popularity of the practice to seek treatment and deliverance from all physical and mental suffering by turning to the relics of saints can be found in many literary works. Theophylact of Ohrid offers an extensive list of the miracles, completed by the imperishable relics of the martyrs of Tiveriopol.³⁵ Euthymius of Tarnovo provided evidence of the healing power of the relics of St. Philothea of Thrace

³⁴ Cosmas the Priest, *Ibid.*, p. 56

³⁵ Theophylact of Ohrid, *Ibid.*, p. 77

(of Argesh), which for him is an extension of the miraculous power, manifested by her in her lifetime.³⁶

Faith in the imperishable relics of saints characterizes not only the lower, but also the higher classes. In the XII c. George Skylitzes tells how Emperor Manuel I Komnenos and himself received healing from the relics of St. John of Rila: "...which wonder could not have been accomplished by Ipocratus's prohibition, or the recognition of Gallienus's reason."³⁷ In the text, as well as in many other hagiographic writings, authors contrasted the healing power of the holy relics and the achievements of learned medicine.

There were also examples of how the location of a tomb or relic storage was directly likened to a clinic and visiting them by the sick and infirm was similar to seeing the doctor.³⁸

Judging by source data early Christian religious life in Bulgaria had two centers - the church and the last home of the saints. This reminds us of the situation in Western Europe in the era of early Christianity, when churches were insufficient or even non-existent, and the centers of worship and prayer were the martyriums of the saints.³⁹ This explains why the collection of relics in the capital was turned into state policy by the Bulgarian rulers Samuil, Ivan Asen I, Kaloyan, Ivan Asen II. The significance of such events was so great that they become national celebrations, and their description was so widespread in literary works that it finally led to the emergence of a separate genre.

The cult of the saints in Medieval Bulgaria was not so much a religious affair, but an element of everyday life, and the utilitarian attitude toward their relics was the one that promoted worship for them. The medicine of Medieval Bulgaria was not very different from that of the pagan times. Pagan Bulgarians tried to heal themselves by amulets, magic stones and spells, while Christianity later substituted those with prayers for health, pilgrimage and sacred objects. People took care of their health at a very primitive level – even in traditional medical practices knowledge and professionalism were substituted for mysticism. The fundamental medical practice was attributed not to certified physicians, but to saints-healers and their relics.

³⁶ Euthymius of Tarnovo. *Ibid.*, p. 208–209, 215

³⁷ Ivan Dujchev, *Zavetăt na Sveti Ivan Rilski*. Sofia, 2000. p. 113

³⁸ *Kratko Žitie na Kliment Ohridski ot Dimităr Homatian* "in SBL, Vol. IV, p. 396

³⁹ Peter Brown, *The Cult of the Saints*, Sofia 2000, p. 20

Vanya Goranova*, Violeta Tacheva**

Teaching neuroanatomical terminology in English as part of the language of medicine

ABSTRACT

Neuroanatomy is the study of the structural organization of the nervous system. Its terminology is closely related to the origin and development of medical terminology. Understanding linguistic phenomena such as etymology, synonyms, antonyms, paronyms, acronyms etc. helps the students in achieving a higher medical competence. The specific terms could be distributed into several categories related to: 1. geometric objects (pyramid, uncus, fornix); 2. colours (red nucleus, white matter, gray matter); 3. skull structures (lacrimal nerve – lacrimal bone, mandibular nerve – mandible); 4. author name (Schwann cells, Broca area, Parkinson disease). Some terms in the English terminology preserve their original Latin form (substantia nigra, corpus callosum) but others are modified (red nucleus, Latin - nucleus ruber). This model of investigation may be applied to other medical disciplines.

Key words: Neuroanatomical Terminology, Etymology, Synonyms, Antonyms, Paronyms, Eponyms, Mythonyms, Toponyms, Acronyms, Backronyms

Introduction

Human anatomy is the science of the human body's structure. It is a basic biomedical morphological science which has arisen and developed closely to medicine - a science and art for diagnosis, treatment and prophylaxis of diseases. There are different anatomical disciplines (gross anatomy, cytology, histology, embryology), various

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approaches (systemic, topographic, plastic, comparative, applied, clinical) or levels (macroscopic, microscopic, ultramicroscopic, molecular) to study the human body.

Neuroanatomy studies the structural organization of the nervous system. It is an organ system containing a network of specialized cells called neurons that coordinate the actions of body and transmit signals between its different parts. Traditionally, neuroanatomy has been seen as a branch of neurobiology. This term refers specifically to the biology of the nervous system. It is used interchangeably with neuroscience that is an interdisciplinary science of the nervous system. It has broadened including molecular, cellular, structural, functional, developmental, evolutionary and medical aspects in studying the nervous system. Neuroscience currently collaborates with other fields such as chemistry, physics, engineering, computer sciences, mathematics and related disciplines - linguistics, philosophy, and psychology in studying the human nervous system, particularly the human brain. It is a unique structure that shows the most complex three-dimensional architecture in the human body. Neuroscientists are only beginning to understand how the different parts of this intricate configuration work together to produce behavior.

One of the greatest challenges faced by students of anatomy is the vocabulary. Knowledge about linguistic phenomena such as etymology, synonyms, antonyms, paronyms, acronyms, eponyms, mythonyms, toponyms, backronyms etc. will be helpful to the students in acquiring better neuroanatomical skills.

Aim of the Study

The aim of our study was to analyze and categorize the majority of neuroanatomical terms in the context of anatomical teaching process in English.

Linguistic Phenomena of Neuroanatomical Terminology

1. General Characteristics

The origin of neuroanatomical terms is related to anatomical and medical terminology as a whole. Medical terminology is a language for accurately describing the human body and associated components, conditions, and processes in a science-based manner.

The modern Terminologia Anatomica (TA) was codified in 1998 by an international body of anatomists, the Federative Committee on Anatomical Terminology. It is based on the three previously used Nominae Anatomicae:

- Basel Nomina Anatomica (BNA), 1885

- Jena Nomina Anatomica (JNA), 1935
- Paris Nomina Anatomica (PNA), 1955

The succession between single Nominae with admitted corrections and additions at various international anatomical congresses: New York, 1960; Wiesbaden, 1965; Tokyo, 1975; Mexico-city, 1980 and Antwerpen, 1985 are the main foundations of the current TA.

2. Etymology

Medical terminology mostly uses ancient Greek and Latin words or their derivatives created using prefixes and suffixes⁽¹⁾. About 90% of today's medical terms are formed from just 1200 Greek and Latin roots. This systematic approach to word building and term comprehension is based on the concept of: (1) word roots, (2) prefixes, and (3) suffixes. In medicine, their meanings, and their etymology, are informed by the language of origin. The process of learning a new language, such as medical terminology, is a challenging, yet attainable goal as the basic rules. Decoding the medical terms is an important process. Once experience is gained in the process of forming and decoding medical terminology, the learning process becomes easier. Medical roots generally go together according to language: Greek prefixes go with Greek suffixes and Latin prefixes with Latin suffixes. One approach involves breaking down the word by evaluating the meaning of the suffix first, then prefix, and finally the word root. When in doubt, the result should be verified by a medical terminology dictionary.

Latin grammatical categories such as noun, adjective, gender, number, declension (case), conjugation and word composition represent important linguistic phenomena. They create very often difficulties when teaching medical students neuroanatomical terminology in English. Common Latin terms in neuroanatomy belong to three different genders: masculine (M), feminine (F) or neuter (N) manifested in nouns and adjectives with various endings in singular and plural in the most used nominative case (for examples see table 1). There are five declensions in the Latin medical terminology (first, second, third, fourth, and fifth).

Sometimes confusion arises because of double origin of specific terms for many structures. Latin language is used for purely anatomical terms and their derivatives, e. g. cerebrospinal fluid (from Latin - cerebrum, i.e., brain), whereas Greek language is preferred for clinically related terms, e. g. encephalitis (brain inflammation). The anatomical term cerebrum, which is just Latin for "brain", is the largest portion of the brain. Actually, cerebrum means not the whole brain but only one part of it that is synonymous with telencephalon. Encephalon is the clinical term for brain. Its origin is from new Latin that comes from ancient Greek ἐγκέφαλος (enkephalos,

"within the head") from ἐν (en, "in") + κεφαλή (kephalē, "head"). Very often brain related anatomical structures are defined as cranial. Cranial is an adjective related to the cranium, the Latin term for skull, e.g. cranial cavity. Cranial nerves are nerves that emerge directly from the brain, in contrast to spinal nerves, which emerge from segments of the spinal cord.

Table 1.

Examples	Gender	Singular ending	Plural ending	Declension
nervus, nervi	M	-us	-i	2 nd
cortex, cortices	M	-ex	-ices	3 rd
fossa, fossae	F	-a	-ae	1 st
facies, facies	F	-es	-es	5 th
septum, septa	N	-um	-a	2 nd
ganglion, ganglia	N	-on	-a	3 rd

3. Synonyms and Antonyms

Synonym is a word having the same or nearly the same meaning as another word or other words in a language. Antonym - from the Greek anti ("opposite") and onoma ("name") is a word having a meaning opposite to that of another word. In neuroanatomy, antonyms are gradable opposites (brevis and longus, pre- and post-, minor and major, anterior and posterior etc.), e.g. gyrus brevis (short) and gyrus longus (long) in insula, precentral sulcus and postcentral sulcus, forceps minor and forceps major.

Table 2.

	Synonyms	Meaning	Synonyms	Meaning
Antonyms	Anterior	Toward the ventral side	Posterior	Toward the dorsal side
	Ventral	Toward the front or belly	Dorsal	Toward the back or spine
	Superior	Above	Inferior	Below

When applied to the brain, anterior is synonymous with ventral, superior, cranial or rostral. Rostral (a beak-like structure) refers to anatomical location or direction meaning towards the rostrum. Posterior is synonymous with dorsal, inferior or caudal (from Latin caudum, i.e., tail). Anterior and its synonyms are all antonyms with posterior and its synonyms (see table 2).

Some additional explanations are necessary for the students to better understand the meaning of these terms and the differences in their application to other regions of the human body. As with other vertebrates, two of the most obvious extremes are the "top" and the "bottom" of the organism. In standard anatomical position, these correspond to the head and feet, respectively in humans. The head end is referred to as the superior end (Latin superior: "above"), while the feet are referred to as the inferior end (Latin inferior: "below")⁽²⁾. As with other vertebrate terminology, there are synonymous terms for anterior and posterior. The most obvious end-points are the "nose" and "tail". In terms of anatomy, the nose is referred to as the anterior end (Latin ante; before). In organisms like vertebrates, that have distinct heads, the anterior end is sometimes referred to as the rostral end (Latin rostrum; beak), the cranial end (Greek kranion; skull), or the cephalic end (Greek kephalē; head)⁽³⁾. The terms cranial and cephalic are often encountered. "Cranial", as a reference to the skull, is fairly commonly used, whereas "cephalic" is uncommonly used. The polar opposite to the anterior end is the posterior end (Latin post; after). Another term for posterior is caudal (Latin cauda; tail, though in humans this refers to the feet, i.e., inferior rather than posterior) - a term that strictly applies only to vertebrates, and therefore less preferred, except in veterinary medicine where these terms are standard. The term "rostral" is rarely used in human anatomy, referring more to the front of the face than the superior aspect of the organism. Similarly, the term "caudal" is occasionally used in human anatomy.

4. Paronyms

Paronyms are words with similar pronunciations but different spellings and meanings. There are many paronymous terms in the field of neuroanatomy like: forceps - fornix - falx; fasciculus - funiculus; paleostriatum - neostriatum; allocortex - isocortex - archicortex - paleocortex - neocortex; archicerebellum - paleocerebellum - neocerebellum; mesencephalon - metencephalon; rhinencephalon - rhombencephalon; tapetum - tectum - tegmentum - tentorium; septum - splenium - striatum; pallium - pallidum; pulvinar - putamen etc.). These type of terms combined with other fractional, synonymous or antonymous neuroanatomical terms create a real challenge in their understanding and learning, e. g. septum pellucidum - splenium corporis callosi - striatum - paleostriatum - neostriatum - stria longitudinalis medialis - stria longitudinalis lateralis.

5. Eponyms

Eponyms in neuroanatomy are terms coined from the names of people contributing to description or study of the respective structure. Such structures are Broca's gyrus - cortical motor speech area (from Pierre Paul Broca, 1824-1880, a French anatomo-

mist, physician, surgeon, anthropologist); Wernicke's area (from Carl Wernicke, 1848-1905, a German anatomist, physician, neuropathologist, psychiatrist); Brodmann's areas - specific functional cortical areas (from Korbinian Brodmann, 1868-1918, a German anatomist and neurologist who has described 52 distinct regions of the cerebral cortex according to their cytoarchitectonics (histological characteristics); Alzheimer's disease; Parkinson's disease; Huntington's disease etc.

Sometimes explaining the students the meaning of an eponym together with its etymology and giving some interesting additional information play a crucial role in the effective neuroanatomy teaching. A nice example in this meaning are the "Motor and Sensory Homunculus"⁽⁴⁾ introduced by Penfield and Rasmussen. Wilder Graves Penfield (1891-1976), a Canadian neurosurgeon, and Theodore Brown Rasmussen (1910-2002), an American neurosurgeon, are two neuroscientists who made fundamental contributions to neurocytology and neurophysiology, including functions of the cerebral cortex, speech mechanisms, and pathological changes underlying epilepsy. A cortical homunculus is a pictorial representation of the anatomical divisions of the primary somatosensory cortex and the primary motor cortex, i.e., the portion of the human brain directly responsible for the exchange of sensory and motor information of the body. There are two types of homunculus: sensory and motor. Each one shows a representation of how much of its respective cortex innervates certain body parts. The 3-D models of both "Motor and Sensory Homunculus" are exposed to visitors in the Natural History Museum in London.

6. *Toponyms and Mythonyms*

In linguistics, toponyms or terms derived from place names have been used to reveal historical land-use patterns whereas mythonyms are terms derived from mythological names. Toponyms are names to denote or identify human habitation sites (cities, towns, villages etc.), natural geographic features (mountains, rivers, lakes, bays, seas etc.), and political boundaries (states, municipalities etc.). They identify and reflect culture, heritage and landscape, and therefore offer much to cartographers, geographers, historians, genealogists, linguists, language planners, and tourists.

There are very few toponyms and mythonyms in neuroanatomy. One of these is arbor vitae (Latin for "Tree of Life") that is the cerebellar white matter, so called for its branched, tree-like appearance. The arborvitae is an evergreen tree or shrub from the cypress family. They are found primarily throughout eastern Canada and the northeastern United States. Arbor Vitae is also a small town in Vilas County, Wisconsin, United States. The concept of a tree of life has been used in science, religion, philosophy, mythology, and other areas. A tree of life is a common motif in various world theologies, mythologies, and philosophies; a mystical concept alluding to the

interconnectedness of all life on our planet; and a metaphor for common descent in the evolutionary sense⁽⁵⁾.

Another interesting mythonym is the term hippocampus that is synonymous to Ammon's Horn (Cornu Ammonii). The word hippocampus comes from late Latin: hippocampus, derived from the Greek words for a horse sea monster. In classical myth and legend, the hippocampus is a mythological sea creature with the forelegs of a horse and the tail of a fish, represented as drawing the vehicle of Neptune the sea God. The other term Ammon's horn is a metaphor that refers to the ram shaped horns on the head representing the Egyptian God Amun. The Greek form of the name was Ammon. Neurologists recognise the hippocampus as each of two elongated eminences (hippocampus major and minor) on the floor of each lateral ventricle of the brain; so called from their supposed resemblance to the fish. With its base in ancient classical history, neuroanatomical terminology provides several metaphors that relate the gods and the brain⁽⁶⁾.

7. Acronyms and abbreviations

Acronyms and abbreviations - words composed of the first letter, or first few letters, of a series of words. Some examples from the field of neuroanatomy could be mentioned such as FP - frontal pole, TP - temporal pole, PARC - paracentral lobule, PORB - pars orbitalis, CUN - cuneus, PCUN - precuneus, etc. The abbreviation of Ammon's Horn is CA. It possesses additional numeration CA1, CA2, CA3, CA4 indicating the four main histological divisions of the hippocampus. Neuroanatomical acronyms and abbreviations are not applied as much as in other medical fields.

8. Backronyms and Mnemonics

A backronym or bacronym is a phrase constructed purposely by taking an existing word already in common usage, and creating a new phrase using the letters in the word as the initial letters of the words in the phrase. Backronyms can be constructed for educational purposes, for example to form mnemonics. A mnemonic or mnemonic device (memory-aiding), is any learning technique that aids information retention. Mnemonics aim to translate information into a form that the human brain can retain better and even the process of applying this conversion might already aid the transfer of information to long-term memory. Commonly encountered mnemonics are often for lists and in auditory form, such as short poems, acronyms, or memorable phrases. Mnemonic phrases and ditties, ranging from the sublimely silly to the unprintably ribald, are used to help generations of medical students remember the cranial nerves. Such a mnemonic phrase with the

first letter(s) of each word matching the first letter(s) of each of the twelve cranial nerves is the following one⁽⁷⁾:

Old	Olfactory (I)
Opie	Optic (II)
Occasionally	Oculomotor (III)
Tries	Trochlear (IV)
Trigonometry	Trigeminal (V)
And	Abducens (VI)
Feels	Facial (VII)
Very	Vestibulocochlear (VIII)
Gloomy	Glossopharyngeal (IX)
Vague	Vagus (X)
And	Accessory (XI)
Hypoactive	Hypoglossal (XII)

Types of Neuroanatomical Terms

For an easier explanation and a better understanding, the specific terms could be distributed into several categories related to:

- Geometric objects or bodies: pons, cingulum, pyramid, crus, olive, insula, claustrum, pulvinar, cornu, uncus, fornix, vermis, dentate gyrus, calcar avis, corona radiata, limbic system, falx cerebri, falx cerebelli, pes hippocampi etc.;
- Colours: substantia nigra, red nucleus, white matter, gray matter, tuber cinereum, locus ceruleus etc.;
- Skull structures: lacrimal nerve - from lacrimal bone, mandibular nerve - from mandible, frontal nerve - from frontal bone, maxillary nerve - from maxilla etc.;
- Author names or eponyms: Golgi apparatus, Nissle bodies, Schwann cells, Betz cells, Broca's area, aqueduct of Sylvius, Reissner's membrane, Parkinson disease etc.

To avoid confusion in the English medical terminology, some terms have preserved their original Latin forms, e.g. substantia nigra, corpus callosum, corpus striatum, corona radiata etc., but others are modified in English, e.g. red nucleus (Latin - nucleus rubber), ventricle (Latin - ventriculus), tract (Latin - tractus) etc.

Aspects, Approaches and Methodology

There are some important aspects when teaching neuroanatomical terminology, i.e.:

- Different levels of organization of the human body: molecular, ultramicroscopic, microscopic (cells, tissues), macroscopic (organs, systems, apparatuses);
- Various classical methods and modern imaging techniques available for studying the nervous system: dissection, microscopy, radiography (x-rays), angiography, computed tomography (CT), magnetic resonance imaging (MRI), positron emission tomography (PET) etc.;
- Different anatomical disciplines: cytology (cell biology), histology, embryology, systemic anatomy, comparative anatomy, topographic (regional) anatomy, clinical (practical) anatomy etc.;
- Different biological and clinical disciplines: physiology, biochemistry, pathology, neurology, neurosurgery, psychiatry etc.

A complex approach combining aspects from various levels, methods and disciplines, including structural and functional aspects, has to be applied to successfully teach neuroanatomy. The main focus in the methodology of teaching should be directed in binding the acquisition of a solid theoretical knowledge with clinical skills in the field of human nervous system and especially its center - the brain. Very often appropriate comparative, historic, practical or other additional data attract student attention and assist terminology retention. Some examples giving ideas on the above mentioned aspects and approaches are presented here below.

The human brain has the same general structure as the brains of other mammals, but is much more larger than expected on the basis of body size among other primates. Most of the expansion comes from the cerebral cortex, especially the frontal lobes, which are associated with executive functions such as self-control, planning, reasoning, and abstract thought.

Neurodegeneration is the umbrella term for the progressive loss of structure or function of nerve cells (neurons), including death of neurons. Many neurodegenerative diseases such as Parkinson's, Alzheimer's, and Huntington's occur as a result of neurodegenerative processes. Neurodegeneration can be found in many different levels of neuronal circuitry ranging from molecular to systemic. As research progresses, many similarities appear which relate these diseases to one another on a sub-cellular level. Discovering these similarities offers hope for therapeutic advances that could ameliorate many diseases simultaneously⁽⁸⁾. Most of the names of neurodegenerative diseases are eponyms - Alzheimer's disease, Parkinson's disease, Huntington's disease, Multiple sclerosis etc. that are used in abbreviations such as: AD, PD, HD, MS respectively.

Alzheimer's disease (AD) is the most common form of dementia. It was first described by the German psychiatrist and neuropathologist Alois Alzheimer (1864-1915) in 1906 and was named after him. There is no cure for the disease, which worsens as it progresses, and eventually leads to death.

Parkinson's Disease (PD) is named after the English doctor James Parkinson (1755-1824), who published the first detailed description in *An Essay on the Shaking Palsy* in 1817. He was the first to describe "paralysis agitans", a condition that would later be renamed Parkinson's disease. The motor symptoms of Parkinson's disease result from the death of dopamine-generating neurons in the substantia nigra. Two world-famous personalities suffer from Parkinson's disease. These are Michael J. Fox, (1961-), a Canadian/American film and television actor, who has Parkinson's disease since 1990 and Muhammad Ali (1942-), an American boxer, who has Parkinson's disease since 1984.

Conclusions

There are various difficulties and problems when teaching the language of medicine and especially neuroanatomical terminology in English. Contemporary challenges of the teaching process are mainly the new interdisciplinary, intercultural and communication aspects. Our linguistic model of investigation and complex teaching approach may be applied by other medical disciplines for better results.

The mystique of the brain continues to intrigue modern biologists, physicians and psychologists even as it did the philosophers of antiquity. The relationship of the mind or personality to the cellular function of the brain is a question that will provide fertile ground for scientific study and philosophical debate long into the future.

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Communication of persons with mental disorders

ABSTRACT

Mental disorders cover a wide spectrum of various diseases, including organic, symptomatic, neurotic, affective diseases, schizophrenic and craziness diseases, mental backwardness and other mental disorders as well as mental disorders and behavioural diseases caused by the use of psychoactive substances, including alcohol, tobacco, drugs and other, traditionally called diseases of addiction.

The problems in communication with the persons with mental disorders are often connected with the nature of their disabilities. The psychotic patients have quite developed and saved senses, but they have difficulties in the processing and interpretation of what they hear, see and touch. The speech of the persons with mental disabilities is poor and with a limited vocabulary. It reflects with a disability in the mental processes, emotions and motivation. The face expression of the persons with acute mental disabilities does not match the verbal message, and is usually expressed as illogical thinking processes in the form of illusions and hallucinations.

To be able to enable persons with mental disabilities to communicate, we should do the following:

- In the communication with the users we have to be patient, with a high level of tolerance and respect towards the personality of the user;
- A shorter transfer of communication is better, a shorter exchange, use of simple, short sentences, giving different shapes of social support e.g. organizing different games, walks in nature, collation of the psychical appearance with the purpose to encourage a certain type of interaction;
- It is not good to interfere with the hallucinogenic contents of the user and
- It's necessary to understand, accept and support their feelings with the purpose to develop a mutual trust.

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With the users who have a certain type of communication limitations regarding their abilities it is necessary:

- To talk loud and clearly with a certain normal speed with the purpose, the user to understand the content of the message easily;
- If we notice that the user has not understood the message we are sending towards him, it is necessary to repeat the message, but use different words;
- It is desirable to accept a certain member of the user's family that would aid as a mediator in the communication of the user and as a source for gaining information;
- To check if the user has understood what we've told him by the repetition or via short summarizing of the conversational content;
- Using other forms of communication (sign language, written messages or pictures);
- Not to make fast conclusions of what the user is saying, but change of the type of communication (use of additional questions of a closed type - yes or no) and
- To motivate the user's memory, to remind him/her of a certain therapy or a certain event that occurred recently.

1. Concept and types of communication

The word communication comes from the Latin word *communicare* which means talking, bargaining, debate, speech, counselling. In sociological terminology glossary, the term communication is defined as the process of transferring the contents of a message from one to another entity, through symbols (Bozinovska, 2004).

According to Johnson (1993) communication between two people is composed of seven elements:

1. Intentions, ideas and feelings to the one who gives the message, the way you decided to apply and send the message;
2. Coding the message-transmission of ideas, feelings and intentions in the message;
3. Sending the message of the one who receives the message;
4. Channel through which the message is transferred;
5. Decoding the message by the recipient - interpreting the meaning of the message;
6. Internal response to the interpretation of the message recipient and
7. Noise in all phases - it breaks down the communication.

The main basic characteristics of the communication are:

- communication is an inborn trait;
- communication is a universal phenomenon;
- communication is a continuous process;
- communication is a dynamic category;
- communication is a cultural phenomenon and
- communication is a special category.

Depending on which symbols, signals and signs are used in communication, and the means by which it is accomplished, it is divided into:

1. verbal and nonverbal;
2. one-way and mutual;
3. interpersonal and intrapersonal;
4. direct (immediate) and indirect (indirect and mediated) ;
5. mass communication and
6. successful and unsuccessful communication.

Verbal communication or oral communication is established through speech that represents the most important means of communication and as a basis serves the ability to produce enough different voices or phonemes, ability to relate in words (morphemes – signs for something that is definite accepted by society) and further into the systems of the words that form a language.

Use of language in speech is determined by various factors such as:

- The level of education of the speaker;
- From his/her life experience;
- The mental-physical condition and
- Emotional condition, etc.

Non-verbal communication is also very important component of the communication, which is important to comply with verbal communication.

2. Communication with persons with mental disorders

When it comes to communicating with people with mental disorders there are numerous biases such as: that these people are dangerous, irresponsible, incapable of making decisions, people with whom is hard-to-communicate, so it is best that the communication with them to be avoided or limited. These stereotypes are present at the general population mass, but not uncommon among the health care workers and health care assistants who work directly with these patients. They are types of attitudes which are focused on a certain kind of mental disorder, those that are given in advance, before we had enough information for the subject of our opinion and which are based on our personal experience with the people towards whom we have prejudices.

Stigma is a negative stereotype. Agreeing with stereotypes about a particular group of people leads to prejudice in this case towards people with mental disorders. That leads to full discrimination, social isolation, material deprivation, marginalization

and an obstacle in the treatment, rehabilitation and reintegration of these individuals into the community.

Due to this condition, the anti-stigma programs should be directed against the stigmatization and discrimination.

The emergence of a mental disorder as the person who suffers, and about their families is a shock, as members become vulnerable from the weight of the occurred problem. It is hard to find someone ready for such thing. Lack of joint talks, open discussion about their own thoughts, usually upsets the family relationships.

To have accurate and timely information about its own health is fundamental human rights. However, in practice, many of the persons with mental disorders often do not receive timely and accurate information about their health condition. This leads to dissatisfaction of the administered treatment, and violation of the human right to participate in making decisions about their own health. Active participation of patients in their treatment, not only that leads to a feeling that they have control over their health, but also significantly affect improvement and healing.

The in-hospital admission of the patient for hospital care rarely means relief and belief that it is good for the given situation. Often, and especially our region, hospitalization is viewed with a sense of tension and fear that situation is bad. There comes the need for health care workers and health care assistants in the first contact with the patient and his family to make the best possible communication to intensify trust to treatment in order to minimize the trauma.

The relation patient-therapist has fundamental meaning in the therapeutic treatment of persons with mental disorders. The first meeting leaves significant and lasting impressions for both patient and user. On the first meeting it should be established clear and open communication, in relation with the therapist it should actively involve the patient and his/her family in order to establish the positive transfer in cooperation and build mutual trust.

Persons with mental disorders in certain periods are not in a condition to understand the meaning of their actions, can not control their behaviour, as they need psychiatric help. These persons are entitled to protection and promotion of their health, in the same way as everyone else.

When communicating with these people, a person should be careful of the following:

- To find enough time for talking;
- The conversation should take place in an appropriate room;
- To explain the purpose of the conversation;
- To avoid support and facilitation ("I see that you find it hard to talk about it");

- To be aware of verbal and non-verbal signs;
- To use short sentences for giving instructions one at a time;
- The touch during the communication it is calming - often are touched arms, back, shoulders, the touch strengthens the verbal message;
- If the patient repeats constantly the same, you should try to keep to the content you're interested;
- In the case of aggressive outbursts you need to remove the situation that led the person so to the outburst and
- Apply active listening.

According Ewles and Simnett (1995) there are six sets of communication difficulties between healthcare professionals and patients:

1. Social and cultural differences: differences in ethnicity, differences in socio-economic status that can be observed in the dialect, accent, manner of dressing etc.
2. Limited opportunities for communication with the patient: symptoms of illness, fatigue, pain, patient emotional excitement, poor appreciation of their own health, the patient's preoccupation are other concerns, not the disease;
3. The patient's negative attitudes toward health worker, previous bad experiences with healthcare professionals, mistrust towards healthcare workers, contradicting earlier and current advice from the health care workers, fear that is caused by the health care professionals, the patient's belief that he/she already knows everything about his illness and that the conversation is a waste of time, the patient's conviction that the advice that will get from the healthcare professional will not be able to implement due to financial and social obstacles or habits that are hard for him/her to give up (smoking, alcohol, etc.), absence of patient's need to learn more about their disease;
4. Limited understanding and remembering: poor knowledge of the language, dialect or patient illiteracy, use of medical jargon, the patient's poor memory and inability to remember past the doctor's advices;
5. Insufficiently importance to the conversation with the patient: poor highlighting of the importance of talking to the patient during the health care worker education, lack of trust of the health care worker own talk in their about abilities and knowledge to influence patient, overburdened health care workers with a number of patients and medical routine, complaints by superiors of the health care worker that the conversation with the patient is a waste of time, unwillingness of the health care worker to share his/her knowledge with non-qualified people who probably will not understand anything and

6. Contradictory advice and recommendations: receiving different information from different health care professionals (different referrals and advice in relation to the same disease or different interpretations of the causes of the disease), disease information provided by health professionals not in compliance with the new diagnostic information.

According to Ewles and Simnet (1985), the following is recommended in overcoming the designated communication barriers:

1. To speak slowly, clearly and without raising the voice;
2. To repeat sentences if they were incomprehensible by using the same words as before, thus the listener is given a better insight into what was spoken as to the use of new words can further hamper the understanding;
3. Avoid using medical jargon, on contrary explain it in a simple way;
4. Use simple words and sentences;
5. Do not be too serious and official, but immediate and smiling. The health care professional should conform to the cultural level of the patient, with his/her level of education, the ability to understand the message and so on;
6. You should avoid using dialect in conversation and
7. When explaining the recommendations or treatment, the health care professionals should check if they are understood as would indicate the patient to repeat the recommendations and in any case to write them down in an understandable way, by avoiding with professional titles or abbreviations, can make drawings, scheme and diagrams to explain the disease and giving advice (Bozinovska, 2004).

Conclusion

During treatment patients should be allow as much as possible to express their feelings, to encourage confidence in the treatment, to develop their communication and social skills particularly for those whose hospital treatment lasted for a longer period of time.

Given that people with mental disorders, as we all live in their primary or their own families, which represent very important segment of their treatment, of utmost importance is the communication with them. The biggest problem in communication of persons with mental disorders with their family members begins with the acceptance that it is a disease and that should be treated.

It should be encourage the communication and the establishment of social relations not only with patients' primary family but also with other members of the community (friends, relatives, neighbours, colleagues and others). They represent an important social support not only in the phase of treatment, but also in the patient's rehabilitation and reintegration into the community.

Psycho-education of the users of psychiatric services and their families increasingly takes its place in the efforts for improvement of the quality of mental health and it should be composed of: accepting that it is a disease and indication for the treatment, taking active part in taking prescribed drug therapy, identification of symptoms that indicate deterioration or irregularly taking treatment, indicating the importance of continuous contact with the physician where the patient is treated, with the facts and prejudices related to psychic disorders and how to overcome them.

Developing of communications and social skills are very important in terms of building the patients' confidence, in accepting the disease, improving the relationships with family, community, establishing and building positive relations and co-operation with the medical staff during patient treatment.

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Orhan Jašić*, Zuhdija Hasanović**

Slijepi u islamu¹

SAŽETAK

U radu smo ukratko pokušali naglasiti različitost između pojmova slijepac i slijepi u Božjoj objavi (Kur'anu) i u islamskoj Predaji (*hadisu*). Božja objava i Predaja kao dva osnovna izvora islama, a samim time i islamskog moralnog učenja, govore o slijepim ljudima u pozitivnom smislu, no s druge strane, osuđuju slijepce, koji kraj očuvanog vida ne vide ispravno. Također je podcrtana bitnost lijepe riječi u islamskom načinu svakodnevnog življenja i izgradnje međuljudskih odnosa, i to osobito sa slijepim ljudima kojima je, zbog nemogućnosti opažanja neverbalne komunikacije, i više potrebna lijepa riječ nego osobama koje vide.

Prvi dio rada posvećen je kazivanjima o Jakubu (Jakov) i Šuajbu (Jethro), Božjim poslanicima koji su bili slijepi u jednom periodu svog života. Nadalje se govori o drugoj osobi, Abdullahu ibn Umm Mektumu, slijepom čovjeku koji je imao posebno mjesto u *svetoj povijesti*, jer je bio povod objavljivanja izvjesnih kur'anskih stavaka (*ajeta*). Potom je ukazano i na pogreške pri prevodenju Kur'ana na bosanski (hrvatski) jezik, gdje je kod većine prevoditelja došlo do pogrešnog prevodenja riječi slijepi. Naime riječ je prevodena kao slijepac. U radu su navedene i analizirane Predaje koje govore o slijepim ljudima. U zaključku je istaknuta potreba odgovornosti, s aspekta islama, i opreznost pri korištenju riječi u govoru i komunikaciji sa slijepim ljudima.

Ključne riječi: islam, Božja objava, Predaja, komunikacija, slijepi, slijepac

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Uvod

Ljudski govor je veličanstveni dar Božji, kojim je darovano krunsko stvorenje Božje - čovjek. Ljudska bića međusobno se sporazumijevaju uz pomoć riječi koje izgovaraju ili ih pišu. Riječ predstavlja osnovnu graditeljsku jedinicu u izgradnji odnosa među ljudima. Jezik koji je moćno oružje u arsenalu međuljudskih odnosa može biti i destruktivna snaga koja ruši višegodišnja prijateljstva ili, pak, povređuje drugog čovjeka. S druge strane, lijepa i dobrohotna riječ, koja je iskrena, dobronamjerna i plemenita, može mnogo utjecati na izgradnju jačih međuljudskih odnosa.

Posebna skupina ljudi koju katkad svjesno, a nerijetko i nesvjesno povrijedimo nesmotreno izgovorenom ili pisanom riječju jesu slijepi ljudi. Nažalost, u našem se jeziku često koriste riječi ružnog značenja, poput ćoravac, ćoravi, ćoro, slijepac i slično, da bi se njima označili slijepi ljudi. Pri tome je neophodno biti svjestan da je slijep čovjek osoba koja ne vidi očima, jer to su ljudi koji su rođeni slijepi, ili su pak, tijekom svog života ostali bez očinjeg vida. Za razliku od slijepe osobe, na drugoj se strani nalaze slijepci, koji imaju očinji vid, ali ne vide istinu i ne sagledavaju istinsku bit stvari. Slijepci su zapravo ljudi koji ne vide istinu, zatim oni koji je ne žele vidjeti ili je pak poriču.

Kroz povijest ljudske civilizacije živjeli su slijepi ljudi koji su umnogome utisnuli svoj pečat na vrijeme u kojem su živjeli svojim djelovanjem, ugradivši u njega dio sebe i ostavivši u naslijeđe grandioznu znanstvenu, književnu, umjetničku ostavštinu. Među znamenitim slijepim ljudima bili su pjesnici poput Homera, Johna Milтона, zatim grčkog kralja Edipa, biblijskog junaka Samsona, ili pak američkog pisca Jamesa Joycea. Među slijepima bili su i slikari poput Eduarda Degasa, Claudea Moneta, Francisca Goye, Joshue Reynoldsa itd., te brojni političari, kompozitori, znanstvenici, no nećemo iznositi njihova imena zbog duljine teksta.

Slijepi ljudi imaju osobito mjesto i u islamu. Naime slijepi se spominju na stranica-ma islamskih svetih Tekstova, Kur'ana i hadisa. Spomenuti nepresušni izvori vjere u islamu mjerodavni su za moralni način življenja vjernika. No prije nego što iznesemo viđenje o slijepim ljudima u islamu, ukratko ćemo se osvrnuti na spomenute izvore islama te ukazati na njihovu važnost u moralnom ophođenju s ljudima koja se manifestira kroz komunikaciju.

1. Izvori moralne teologije u islamu

Islam je uz judaizam i kršćanstvo jedna od tri monoteističke objavljene religije ibrahimovskog (hrv. abrahamovskog) čokota. Među nabrojenim religijskim tradicijama postoje znakovite sličnosti i to osobito u moralnom učenju i periodizaciji *svete povijesti*,

ali su s druge strane sveprisutne i izvjesne razlike, koje su prvenstveno dogmatskog karaktera. U ovom radu neće biti izricane razlike, nego ćemo se usredotočiti na moralno učenje islama te važnost riječi i komunikacije u ovoj disciplini sa sljepim ljudima.

Svjetske religije upozoravaju na važnost lijepe riječi, oprosta, ili pak ispomoći ne-moćnim. Jedna od tri abrahamovske religije koja podcrtava važnost odgovornosti, i to osobito u komunikaciji, je islam. Islam kao i mnoge druge svjetske religije posjeduje moralno učenje, koje usmjerava poput naputka za ispravno i pravovaljano ljudsko ponašanje.

Bit morala sastoji se u univerzalnom važenju moralnog pravila, u pridržavanju univerzalne moralne norme u konkretnim životnim situacijama i individualnim postupcima². Grana teologije u islamu, koja ima zadatak težiti izgradnji bolje osobe je moralna teologija ili, u tradicionalnom islamskom nazivlju - *ilm ahlak*. Spomenuta disciplina nalazi svoje utemeljenje u svetim spisima islama, a to su Kur'an i hadis. Moralna teologija poučava ljude pravovaljanom ponašanju u svjetlu Božje objave Kur'ana i hadisa, ali se i kao dodatni izvor razumijevanja i objašnjavanja izvjesnog moralnog problema koristi radi razjašnjenja i kao racionalni argumenti, koji ne smiju biti u koliziji s prethodnim izvorima.

Dakako i sama moralna teologija pretpostavlja razumsku argumentaciju u utemeljivanju moralnih *normi* za kojima neprestano traga... U središtu moralne teologije je ljudska osoba i njezin odnos prema Bogu i, posljedično, prema ljudima³. U islamu je sveprisutna sprega između nebesa i zemlje, između rada i molitve, te stoga islam u svom učenju podcrtava neodvojivost vjere i morala, koji se neprestano trebaju međusobno prožimati i izgrađivati boljeg vjernika, boljeg čovjeka. Islam u svom učenju podcrtava školu vjere i morala, s tim da srž islama predstavlja Istina Tewhida, koji označava islamski monoteizam, to jest vjeru u Jednog Jedinog Boga. Nadalje, islam podcrtava i uvjerenost u poslanstvo od Boga Božjeg poslanika Muhammeda, kome je prema vjerovanju muslimana dostavljena Posljednja Božja Objava Kur'ana. Uvjerenost srca bitniji je sastavni dio *vjerovanja*, a svjedočenje je dokaz da netko vjeruje. *Islam* zapravo znači predanost⁴. Osim svjedočenja vjere u Jednog i Jedinog Boga, u islamu je i više nego važan stil življenja, koji treba biti usklađen s moralnim učenjem islama.

Moralno učenje islama insistira na razlučivanju dobra i zla i nastoji afirmirati stvarne vrijednosti te poučiti nas kako ostvariti krajnji cilj u životu. Izvorišta moralne te-

² Ante Čović, "Pojmovna razgraničenja: moral, etika, medicinska etika, bioetika, integrativna bioetika", u: Ante Čović, Marija Radonić (ur.), *Bioetika i dijete*, Pergamena, Zagreb, 2011., str. 13.

³ Tonči Matulić, *Oblikovanje identiteta*, Glas Koncila, Zagreb, str. 123-124.

⁴ Samir Beglerović, *'Abd al-Qādir Al-Gaylāni i derviški red kaderija*, Fakultet islamskih nauka u Sarajevu i hadži Sinanova tekija u Sarajevu, Sarajevo, 2009., str. 212.

ologije su nepresušni sveti spisi islama Kur'an i hadis (hrv. Islamska Predaja). Za vjernike muslimane Kur'an je riječ Božja koja je preko meleka Džibrila (hrv. anđeo Gabrijel) priopćena Muhammedu, a. s.,⁵ zatim ju je odmah zabilježio zapisničar Božje objave, a istovremeno se čuvala i u usmenom obliku u čuvara Božje objave (ar. *hafiza*). Kur'an se sastoji od 114 sura (hrv. poglavlja - slika) koje se nadalje granaju na ajete (hrv. znakove - stihove). Objavljivanje Kur'ana Božjem poslaniku Muhammedu, a. s., trajalo je 22 godine, i to od 610. sve do 632. godine. Muslimani vjeruju da je Kur'an ostao nepromijenjen već petnaest stoljeća te da je u potpunosti isti kao što je od Boga preko meleka (hrv. *anđela*) spušten s nebesa Muhammedu, a. s. Božja objava ili Kur'an predstavlja osnovni izvor, jer su u njemu sadržana temeljna načela vjerovanja, zatim dopuštenja i naredbe te islamsko moralno učenje. Središnji cilj Kur'ana ustanoviti je održiv društveni poredak na Zemlji, koji će biti pravedan i utemeljen na moralu⁶.

Naziv za drugi izvor u islamu na arapskom jeziku je *sunnet* ili *hadis*, odnosno Islamska Predaja. To su riječi i praksa Božjeg poslanika Muhammeda, a. s., te sve riječi i postupci drugih koje je on prešutno odobrio. Jednako kao i u Božjoj objavi, u Predaji se govori o vjeri u Boga, metafizičkom svijetu, ali se osobito eksplicira i moralno učenje islama. Cilj i svrha islamskog moralnog učenja jest izgraditi cjelovitu ličnost koja će u međusobnoj suradnji s drugim sličnim pojedincima graditi, prije svega, harmoničnu obitelj, potom funkcionalnu zajednicu, a zatim i zdravo društvo. Moralni pojedinci kroz organizirano djelovanje konstantno unapređuju ljudsku ličnost, kvalitetu ljudskog života općenito, istovremeno ne nanoseći štetu prirodi i ljudskom okruženju. U takvoj vrsnoj izgradnji općeg dobra islamsko učenje naglašava važnost pojma odgovornosti, koji se u islamskoj teološkoj i filozofskoj literaturi označava arapskim terminom *al-taklif*. Islamsko moralno učenje osobito ukazuje na principe odgovornosti i pravednosti, pri čemu se osobito potencira vršenje dobra i odgovaranja od zla.

1.1. Komunikacija u islamu

U islamskom načinu življenja, koji treba u potpunosti biti izgrađen na vjeri i moralu, ukazuje se čovjeku na koji način komunicirati s drugim ljudima, kako izgrađivati bolje sutra, te poboljšati prirodu i slično. No pri tome je vrlo važna komunikacija i lijepa riječ, istinita i plemenita riječ upućena drugom ljudskom stvorenju. Islamski izvori podcrtavaju čak i neverbalnu, a ne samo verbalnu komunikaciju. Naime, u

⁵ A. s. je kratica arapske sintagme *alejhis-selam*, što u prijevodu znači *mir s njim*, čime muslimani iskazuju poštovanje prema Glasonoši riječi Božje Muhammedu, ali i ostalim Božjim poslanicima, poput Jusufa (Josipa), Jakuba (Jakova), Isa (Isusa) itd.

⁶ Fazlur Rahman, *Glavne teme Kur'ana*, CNS i El-Kalem, Sarajevo, 2011., str. 87.

jednoj Predaji Božjeg poslanika Muhammeda, a. s., stoji da je kazao: *Osmijeh svom bratu dobro je djelo!*⁷

Komunikacija je poruka pošiljatelja kodirana sukladno njegovim nazorima, vrijednostima i znanju, a primatelj je dekodira prema osobnim stavovima, uvjerenjima i znanju. Proces vodi pozitivnoj ili negativnoj informaciji kojom iznova počinje krug slanja i primanja poruke na osnovi tog modela.⁸ Ljudi uživaju u interakciji i sam čin uključivanja u izravnu međuljudsku komunikaciju pridonosi pozitivnim promjenama u emotivnom životu. Naravno da odnosi i komunikacija s drugima mogu biti i izvor poteškoća i osobnih problema, no čak i tada osobe traže i doživljavaju određeni dobitak iz socijalne interakcije. Suprotno tome, nesposobnost uključivanja u smisleni odnos s drugima ili izbjegavanje drugih rezultira, između ostalog, usamljenosti i nezadovoljstvom⁹. Komunikacija nije samo izmjena informacija. Komunikacija stvara nove, privremene ili trajne sustave. Svrha komunikativnog događaja jest gratifikacija; njen sadržaj ovisi o motivacijskom izvoru, a gratifikacija je općenito životna svrha¹⁰. S druge strane, mnogi ljudi griješe u komunikaciji, i to osobito sa sljepim ljudima. I kada ne bi željeli povrijediti slijepe, povrijede ih govorom oslovljavajući ih slijepcima. Paralelno s tim i razne oblike uznemiravanja i maltretiranja ljudi treba shvatiti tako široko da se obuhvati ne samo njegova fizička i društvena dimenzija, nego i ona dimenzija koja podrazumijeva rast duha i vjere. S tim se na koncu mogu dovesti u vezu i kazne koje islam propisuje onima koji narušavaju ljudsko dostojanstvo i njegova prirodna prava¹¹.

Komunikacija je izravno povezana s dobrim ili lošim djelom. I sama šutnja predstavlja jedan vid komunikacije, kada se može mnogo više kazati nego ispisanim ili pak izrečenim riječima. Prema islamskom vjerskom učenju zabranjeno je imati predrasude prema ljudima na osnovi njihovog izgleda ili pak podrijetla. Znameniti muslimanski velikan 'Ali Ebi Talibov sin kaže: "Ne gledaj u onoga koji govori, već gledaj u ono što govori".¹²

Dobro djelo potvrđuje se lijepom, plemenitom, iskrenom i odgovornom riječju, koja kao takva predstavlja osnovnu građevnu jedinicu u komunikaciji. Plemenita

⁷ Et-Tirmizi, *Sunen*, Mustafa el-Babi el-Halebi, Kairo, 1975., IV, str. 339.

⁸ Frank Verheyen, Katrin Mühlbauer, Martin Schulz, "Edukacija pacijenata – kako komunicirati s pacijentima" *Farmaceutski glasnik*, (54/1988.), str. 389-396., preuzeto iz: Aleksandra Frković, *Medicina i bioetika*, Pergamena, Zagreb, 2010., str. 155.

⁹ Više v.: Owen Hargie, *The Handbook of Communication skills in theory*, Routledge, London, 2006., str. 7-36.

¹⁰ Zdenka Gruden, *Edukacija edukatora*, Medicinska naklada, Zagreb, 1997, str. 156-157.

¹¹ Adnan Silajdžić, *40 hadisa sa komentarom*, Fakultet islamskih nauka u Sarajevu i El-Kalem, Sarajevo, str. 191.

¹² Qari, Ali ibn Sultan Muhammad, al, *Al-Asrar al-marfu'a fi akbar al-mawdu'a 1-30*, Bayrut, Muassa al-Risala, 1971., I:383., preuzeto iz: Rusmir Mahmutćehajić, *Hval i djeva, sabiranje nasutog*, Dobra knjiga i Čikma, Sarajevo, 2011., III, str. 158.

namjera, praćena lijepom i istinitom riječju veoma je bitna značajka dobrih djela. Pravedoljubivi o lijepoj i istinitoj riječi kaže: *Lijepa riječ i isprika vredniji su od milostinje koju prati vrijeđanje...* (Al-Baqara, 263) *Na put Gospodara svoga mudro i lijepim savjetom pozivaj i s njima na najljepši način raspravljaj! Gospodar tvoj zna one koji su zalutali s puta Njegova, i On zna one koji su na Pravome putu.* (An-Nahl, 125) *Ti sa svakim - lijepo! I traži da se čine dobra djela, a neznalica se kloni!* (Al-A'raf, 199). Božji poslanik Muhammed, a. s., kazao je: "Istinski predana osoba (*musliman*) jeste onaj od čijeg jezika i ruku ne strepe drugi muslimani, a stvarna izbjeglica (*muhadžir*) je onaj koji napusti ono što ne valja"¹³.

Još jedna mudra i poučna izreka veže se uz iskrenog druga Božjeg poslanika Muhammeda, a. s, Alija, r. a.¹⁴, koji je rekao: *Riječ dok ne izgovoriš vladaš njom, a kada je izgovorena ona vlada tobom.* Dobro djelo čime se jedino čovjek potvrđuje kao čovjek, ne smije u sebi imati ni trun licemjerstva i neiskrenosti. Pouka lijepo riječi ogleda se u napuštanju lošeg, to jest onog što ne valja, da ne činimo drugima zlo kako mislimo tako riječima i djelom. No lijepa riječ nastaje kao proizvod odgovornosti, suosjećajnosti i istinske predanosti Bogu, ako se govori s islamskog vjerskog aspekta.

Pri upotrebi riječi vrlo je važno razlikovati riječi slijepi i slijepac, jer spomenuti termini sadrže u potpunosti suprotna značenja. Naime slijepa osoba je osoba bez jedne funkcije ljudskog tijela, dok je slijepac bez funkcije duha. Slijepci ne mogu ono što mogu slijepi! Zar se za osobu koja ne vidi ono što je očito ne kaže da je slijepac ili "slijep kod zdravih očiju"? Zato dobro kaže čitatelj: "Nema veće uvrede za slijepu osobu nego što je poistovjećivanje sa slijepcem."¹⁵ Neophodno je biti svjestan značenja nekih riječi da ne bismo drugog čovjeka, drugo ljudsko biće povrijedili, samo zato što neoprezno, bez dovoljno osjećaja i senzibiliteta, poistovjećujemo riječi slijepi i slijepac, koje se u svojoj suštini razlikuju. I sveti tekstovi islama razlikuju ih. Sljepoća je jedan vid teškog invaliditeta, s kojim su primorani živjeti slijepi ljudi. Pod općim pojmom sljepoće (lat. *amaurosis*, *coecitas*, engl. *blindness*, njem. *Blindheit*) obuhvaćeni su pojmovi sljepoće u znanstvenom smislu i tzv. praktične sljepoće. U znanstvenom smislu slijepo je oko koje ne razlikuje svjetlo od tame, no oko je u praktičnom smislu slijepo i onda ako još preostaje minimalan ostatak vida¹⁶. Slijepi ljudi mogu biti rođeni sa sljepilom ili su tijekom života ostali slijepi. S druge strane,

¹³ El-Buhari, *Sahih*, Dar Tavkun-nedžat, Kairo, 2001., I, str. 11.

¹⁴ Kratica od arapskog *radijellahu anhu*, što znači: Bog njime zadovoljan bio.

¹⁵ <http://www.savez-slijepih.hr/hr/clanak/1-811/> (25. 5. 2012.); Večernji list, večernje izdanje (Dalmacija), 3. 1. 2007.

¹⁶ Davor Gligo, "Sljepoća", *Medicinska enciklopedija*, Jugoslavenski leksikografski zavod, Zagreb, 1970., V, str. 775.

slijepci su oni koji vide, ali su im srca okamenjena, kojima zlo nimalo nije strano, ili slijepci mogu biti oni koji ne vide samu suštinu problema.

Ljudi koji su slijepi vjeruju da mogu osjetiti ljepotu preko dodira i mogu voljeti. Ljubav se može osjetiti i izraziti kroz tri načina: viđenjem, umom i duhom ili srcem. Ako oduzmemo udio vida (33 %), trećina osjećaja se izgubila, ali većina ljubavi još je uvijek prisutna¹⁷. Srce je slijepo kada ljudi tjelesnim okom vide stvari, ali ne mogu ili ne žele razumjeti i izraziti ono što su vidjeli. Na isti način srce je gluho kada se čuju zvukovi, ali se ne mogu razlikovati. Davno je Heraklit govorio: "Oči i uši su ljudima lažni svjedoci ako su im duše barbarske."¹⁸

Islam podcrtava bitnost odgovornosti, jer je ona utopljena u jeziku kojim iskazujemo svoje misli, ali nekada koristimo riječi koje nikada ne bismo smjeli koristiti, riječi kao što su slijepac, ćoro ili slično. Slijepci su oni za koje Allah u Kur'anu kaže *oči nisu slijepi, već srca u grudima*.

2. Slijepi u Kur'anu

Na stranicama Kur'ana spominju se i slijepi ljudi, no i slijepci. Jezik Kur'ana je arapski i svet je za muslimane, budući da je na njemu Božja objava spuštena Muhammedu, a. s. Neophodno je ukazati na to da je Kur'an izuzetno precizan pri ukazivanju na značenje, pa se tako spominju slijepi i slijepci, u arapskom originalu, kako je od Boga objavljeno.

Riječ Božja oduvijek je bila smjerodavna i smjerokazna za pobožne muslimane. Ona je odgajala ljudsku dušu, te samim time nahodila ljude da svjedoče vjeru u Jednog Jedinog Boga i da čine dobra i plemenita djela. Pri tome Riječ Božja opominje i ukazuje na dar zdravlja, te ukazuje i na fenomen bolesti, a jedan od vidova tjelesnog invaliditeta je sljepoća.

Prema Kur'anu riječ *'ama* (sljepoća) dvojakog je značenja: prvo je gubljenje vida i nemogućnost da se vidi, što je fizička sljepoća; a drugo gubitak uma, kao što je u slučaju neznanja, odnosno kada osoba ima slijepo srce. Znameniti arapski jezikoslovac Ibn Menzur u poznatom rječniku arapskog jezika *Lisanul-Areb* kaže da Arapi koriste glagol *amije* u značenju ne vidjeti ili ne biti u mogućnosti da vidi¹⁹.

¹⁷ Abdullah Almusa i Kay Ferrell, "Blindness in Islam", Faculty.ksu.edu.sa/10607/DocLib5/Blindness%20in%20Islam.doc (15. 3. 2012.)

¹⁸ <http://hr.wikipedia.org/wiki/Heraklit> (29. 8. 2012.). O Heraklitu više v.: Željko Kaluderović, "Heraklitova vatra", *Pedagoška stvarnost*, (9-10, 2009.), str. 865-877.

¹⁹ Više v.: Ibn Menzur, *Lisanul-Areb*, Dar Sadir, Bejrut, 1993., XV, str. 95.

Glagol *amije* u različitim formama upotrijebljen je u Kur'anu na trideset i tri mjesta. U dvadeset i dva slučaja odnosi se na one koji su slijepi u duhovnom smislu i ne prihvaćaju upute koje im se kazuje, a u jedanaest slučajeva odnosi se na osobe koje su bez očinjeg vida. Vrlo često i u ovim slučajevima glagol *amije*, odnosno njegove izvedenice mogu se shvatiti u prenesenom smislu, jer Uzvišeni Bog postavlja pitanje, primjerice, jesu li isti oni koji vide i oni koji ne vide. Samo na tri mjesta²⁰ riječ *el-'ama* odnosi se isključivo na osobe bez očinjeg vida²¹. Upravo zbog toga što se u Kur'anu pod riječju *'ama* misli na duhovnu sljepoću, ona se uglavnom navodi u negativnom kontekstu i osuđuje²².

Iz posljednje Božje Riječi poznata su imena dvadeset pet Božjih poslanika, a ciklus spuštanja Božje objave ljudima prema islamskom učenju počeo je s prvim Božjim poslanikom i rodonačelnikom ljudskog roda Ademom (hrv. Adamom), a. s., a završio je s posljednjim Glasonošom Riječi Božje Muhammedom, a. s. Između prvog i posljednjeg Božjeg poslanika živio je i djelovao velik broj Božjih poslanika. Pri tome su Božji poslanici bili odgajatelji ljudskih duša, no stavljeni su na najteža iskušenja u kojima su morali posvjedočiti svoju vjeru, ljudskost i ustrajnost na putu dobra.

Jedan od Božjih poslanika, koji je živio mnogo prije Muhammeda, a. s., bio je Jakub, a. s., koji je u periodizaciji biblijskog Starozavjetnog teksta poznat kao Jakov. Jakub, a. s., je obitavao u Palestini, svetoj zemlji svih triju monoteističkih religija, judaizma, kršćanstva i islama. Imao je dvanaest sinova od kojih je prvak bio Jusuf, a. s., (hrv. Josip), koji je također bio Božji poslanik. Preci Božjeg poslanika Jakuba, a. s., bili su Glasonoše riječi Božje, a od njegova potomstva poteklo je dvanaest plemena Izraelovih (drugo ime za Jakuba, a. s., je Israel), među čijim potomcima je i velik broj Božjih poslanika.

Dvanaesta kur'anska sura (poglavlje) *Jusuf* pripovijeda o obiteljskoj drami u Jakubovoj obitelji, koja se dogodila u Palestini i Egiptu. Naime u njoj biva riječi o Jakubu i njegovoj obitelji, o *putešestvijama* njegova sina Jusufa, a. s., kojeg su prodala njegova polubraća u ropstvo, ljubomorna na njega, zato što je sljepoća žarila srca njihova²³. Pripovijest o Jakubu, a. s., s kojom nas upoznaje kur'anska sura *Jusuf*, veličanstvena je odiseja ljubavi oca prema sinu, koja mu je život ispunila suzama i tugovanjem nanoseći nepodnošljivu bol odvojenosti, čija je žestina duhovno oblikovala njegovu ličnost²⁴.

²⁰ U ovom smislu upotrijebljena je u: El-Feth, 17; En-Nur, 61 i Abese, 2.

²¹ Više v.: Muhammed Fuad Abdulbaki, *El-Mu'džemul-mufehres li elfazil-Kur'an*, Darul-fikr, Bejrut, 1981., str. 488-489.

²² Više v.: Ibn Menzur, *Lisanul-Areb*, XV, str. 97.

²³ Više v.: Kur'an, sura Jusuf.

²⁴ Mubina Moker, *Duhovne postaje poslanika u sujetonazoru šejha Attara*, Ibn Sina, Sarajevo, 2007., str. 108.

Zbog tuge za svojim voljenim sinom Jusufom, Jakub je postao slijep. O njegovoj sljepoći zbori i Časni Kur'an, u dijelu gdje Jakub komunicira sa svojim sinovima, to jest polubračom Jusufovom, koja su ga prodala u ropstvo u Egipat: *I okrenu se od njih i reče: "O Jusufe, tugo moja!" - a oči su mu bile pobijeljale od jada, bio je vrlo potišten.* (Jusuf, 84) Iz navedenog ajeta očito je da je stari Jakub, a. s., postao slijep čovjek. No on nije izgubio glavni vid, onaj najvažniji, iskrenost i predanost spram Istine; stari Jakub jedino nije mogao više vidjeti svojim očnjim vidom, jer je postao slijep, dok je pak njegov srčani vid itekako blistao.

Sljepilo Jakubovo, pruzročeno tugom i bolom zbog gubitka sina Jusufa, opisao je znameniti srednjovjekovni sufijski (muslimanski mistik) poeta Faridud-din Attar sljedećim stihovima:

*Osljepio od tuge je,
Otkad Jusufa nema, sam ostao je.²⁵
Kada Jusufa od oca rastaviše,
Jakubove oči od rastanka oslijepiše.²⁶*

Spomenuti Attar bio je nadahnut kur'anskim kazivanjem te je zbog toga i ispjevao svoj doživljaj ovog teškog trenutka u domu Jakubovu. S druge strane, u nastavku sure (hrv. poglavlja) Milostivi Bog govori o Jusufovom, a. s., susretu s braćom, njegovom oprostom braći, sveopćoj dobrohotnosti i suosjećajnosti prema obitelji, ali i o čudu ozdravljenja oca, uz pomoć tzv. treće Jusufove košulje, koja je izliječila Jakubovo, a. s., sljepilo, o čemu u Božjoj objavi stoji: *A kada glasonoša radosne vijesti dođe, on stavi košulju na lice njegovo i on progleda. "Zar vam ne rekoh – reče – "da ja znam od Allaha ono što vi ne znate."* (Jusuf, 96)²⁷ Iako je bio slijep, Jakub je itekako vidio, vidio je srcem, i nesumnjivo Milošću Božjom. Iz navedenog kur'anskog podučka evidentno je da su braća Jusufova, odnosno sinovi Jakuba, a. s., bili slijepci, jer su učinili mnogobrojna zla djela rukama, očima, srcem i, nesumnjivo, riječju koja je bila i više nego neubojita. Ali Božjom milošću i spremnošću Jusufa ukazana im je mogućnost pokajanja i oprosta.

Velikani *svete povijesti* poput Božjeg poslanika Jakuba predstavljaju primjer ustrajnosti u teškoći, čvrstoj vjeri u Boga, te nadi u Božju Milost. Stoljeća su prolazila, Jakub

²⁵ Faridod-din Attar (1989/1368) Elahiname (Ilhinama), kritičko izdanje Helmuta Ritter, Teheran, str. 67., stih 9-10., navedeno prema prijevodu Mubine Moker; Mubina Moker, *Duhovne postaje poslanika u svjetonazoru šejha Attara*, str. 113.

²⁶ Faridod-din Attar (2005/1383) *Manteqot-teyr (Manteqot-teyr)*, kritičko izdanje Mohammed Reza Šafia Kadkani, str. 86., stih 204., Mubina Moker, *Duhovne postaje poslanika u svjetonazoru šejha Attara*, str. 114.

²⁷ Svi prijevodi kur'anskih ajeta koji su navedeni u ovom radu, ako to drukčije nije naznačeno, dati su prema: *Kur'an s prevodom*, preveo: Besim Korkut, Kompleks Hadimul-haremejniš-šerifejn El-Melik Fahd za štampanje Mushafi šerifa, Medina, 1991.

i Jusuf, a. s., već su odavno bili preselili na drugi svijet, a ljudima je poslan od Plemenitog Boga još jedan od dvadeset pet Božjih poslanika Šuajb, a. s. Za njegov narod, potomke Ibrahima (hrv. Abraham), a. s., koji je živio u Medjenu²⁸, bilo je karakteristično da su, a što nije strano ni nama danas, bili veliki egoisti, da su mislili samo na sebe i ostvarivanje svojih prava i interesa, te da su bez ikakva srama i ustručavanja oduzimali, uskraćivali i uzurpirali prava drugih, pa čak pod izgovorom plaćanja carina i putarina sustavno pljačkali sve trgovačke karavane koje su prolazile njihovim područjem. Nije poznato da je itko prije njih tako nasilno postupao s trgovcima. Naročito je bilo uobičajeno varanje kod vaganja, kao i svi drugi oblici prijevare i zakidanja u trgovini. O tome Kur'an kaže:

*I Medjenu - brata njihova Šuajba (poslasmo). "O narode moj," - govorio je on - "Allahu se klanjajte, vi drugog boga osim Njega nemate, i krivo na litru i na kantaru ne mjerite. Vidim da u obilju živite i bojim se da vas jednog dana ne zadesi kazna, pa da svi nastradate."*²⁹

Šuajb, a. s., konstantno i istrajno upozoravao je na te društvene devijacije i time istakao da se islam ne bavi samo učvršćivanjem veze između čovjeka i njegova Gospodara, nego cjelokupnim ljudskim životom u svoj njegovoj punini koji ta duhovna snaga treba prožimati te je svojom mudrošću i lijepom riječju ukazivao na loše posljedice devijantnog ponašanja:

*"O narode moj! Pravo mjerite i na litru i na kantaru i ne zakidajte ljudima stvari njihove i ne činite zlo po Zemlji praveći nered. Bolje vam je ono što Allah ostavlja kao dopušteno, ako hoćete da budete vjernici; a ja nisam vaš čuvar."*³⁰

Nakon ovih riječi njegov narod iznosi čuđenje koje je i danas aktualno. Zar treba vjera utjecati na naše svakodnevno ponašanje? Na naše odnose unutar obitelji, na naše poslovanje, naš moral? Zar vjera ne završava s okončanjem molitve?³¹

*"O Šuajbe," - govorili su oni - "da li vjera tvoja traži od tebe da napustimo ono čemu su se preci naši klanjali ili da ne postupamo s imanjima našim onako kako nam je volja? E baš si 'pametna' i 'razuman'!"*³²

Pokušavaju obezvrijediti Šuajbove, a. s., zahtjeve uspoređujući ih s njihovom tradicijom, načinom života koji su naslijedili od predaka. No ove pogrde i ismijavanja

²⁸ Pokrajina Medjen prostire se između južnog dijela Sirije i sjevernog dijela Hidžaza.

²⁹ Kur'an, Hud, 84.

³⁰ Kur'an, Hud, 85., 86.

³¹ Više v.: Sayyid Qutb, *U okrilju Kur'ana*, (prijevod s arapskog prof. dr. Omer Nakičević i dr.), Fakultet islamskih nauka u Sarajevu, Sarajevo, 1998., XII, str. 141-142.

³² Kur'an, Hud, 87.

Šuajba, a. s., uopće ne pogađaju, nego on nedvosmisleno i nepokolebljivo iskazuje svoju zadaću i odnos prema Gospodaru, svijest da je on paradigma moralnog ponašanja i da ništa više ne traži od svojih sljedbenika nego ono što sam radi te uspostavlja jasnu razliku između onoga što je u njegovoj moći upućivanja i savjetovanja, i rezultata i uspjeha koje daruje samo Uzvišeni Bog:

*"O narode moj," - govorio je on – "shvatite da je meni jasno ko je Gospodar moj i da mi je On dao svega u obilju. Ja ne želim činiti ono što vama zabranjujem; jedino želim preporoditi koliko mogu, a uspjeh moj zavisi samo od Allaha; u Njega se uzdam i Njemu se obraćam."*³³

Šuajb, a. s., posebno ističe i upozorava svoj narod da ih interni nesporazumi, neslaganje i antipatija koje mogu imati prema njemu ni u kom slučaju ne smiju odvesti u zabludu, grijeh i poricanje Gospodara, jer je to put koji vodi u propast:

*"O narode moj, neka vas neslaganje sa mnom nikako ne dovede do toga da vas zadesi ono što je zadesilo Nuhov narod ili Hudov narod ili Salihov narod. A i Lutov narod nije mnogo prije vas živio. I tražite oprost od Gospodara svoga, i onda Mu se pokajte! - Gospodar moj je, uistinu, samilostan i pun ljubavi."*³⁴

Iako im je govorio sasvim jasno i uvjerljivo, razložno i argumentirano i zbog toga čak prozvan "Oratorom vjerovjesnika" (*hatibul-enbija*)³⁵, njegov narod ne razumije njegove opomene, jer ih u tome sprečava sljepoća njihovih umova i srca:

*"O Šuajbe," - rekoše oni - "mi ne razumijemo mnogo toga što ti govoriš, a vidimo da si ti među nama jadan (daif); da nije roda tvoga, mi bismo te kamenovali, ti nisi nama drag."*³⁶

Mnogi komentatori Kur'ana ističu da se pod izrazom *daif*, kojim se želi degradirati, omalovažiti i oslabiti Šuajbov, a. s., društveni utjecaj, misli na činjenicu da je bio slijep³⁷.

"O narode moj," - reče on - "zar vam je rod moj cjenjeniji od Allaha, koga sasvim odbacujete? Gospodar moj dobro zna ono što vi radite! O narode moj, činite sve što možete, a

³³ Kur'an, Hud, 88.

³⁴ Kur'an, Hud, 89., 90.

³⁵ Više v.: Ibn Kesir, *Tefsirul-Kur'anil-azim*, Dar Tajjiba lin-nešr vet-tevzi', Rijad, 1999., III, str. 447.; Es-Sujuti, *Ed-Durrul-mensur*, Darul-fikr, Bejrut (nedatirano), III, str. 501.

³⁶ Kur'an, Hud, 91.

³⁷ Više v.: Ebu Džafer et-Taberi, *Džamiul-bejan fi te'vilil-Kur'an*, Mu'essesetur-Risala, Damask, 2000., XV, str. 458.; Es-Sa'lebi, *El-Kešf vel-bejan an tefsiril-Kur'an*, Dar Ihja turasil-arebi, Bejrut, 2002., V, str. 187.; El-Begavi, *Me'alimut-tenzil fi tefsiril-Kur'an*, Dar Ihja turasil-Arebi, Bejrut, 1999., II, str. 463.

činit ću i ja. Vi ćete, sigurno, saznati koga će kazna stići koja će ga osramotiti i ko je lažac. Pa, čekajte i ja ću s vama čekati!"³⁸

Nažalost, sva upornost i briga koju je Šuajb, a. s., pokazivao prema svome narodu i njegove retoričke sposobnosti nisu u potpunosti urodile plodom, i o kraju njegovog naroda Allah, dž. š., kaže: *I kada je pala naredba Naša, Mi smo, iz milosti Naše, Šuajba i vjernike s njim spasili, a one koji su zlo činili pogodio je užasan glas i oni su u zemlji svojoj mrtvi, nepomični osvanuli, kao da na njoj nikada nisu ni postojali. Daleko bio Medžen kao i Semud.*³⁹

Pobuna protiv zla izvire iz plemenitih duša, koje preziru svako zlo i osuđuju ga. Što se više razvija moralna kultura i humanost, to se i pobune protiv zla sve glasnije čuju – kao vječni eho pobune meleka (hrv. anđela) protiv postavljanja čovjeka, sklonog prolijevanju krvi, za gospodara na Zemlji. A problem zla ostao je kao vječito pitanje zla u samome čovjeku⁴⁰. Pojmovi dobra i zla vezuju se uz čovjeka, njegovu tamnu, odnosno ognjenu narav, i drugu svijetlu anđeosku stranu koja simbolizira ono dobro u čovjeku. Naime, čovjek je u mogućnosti birati između puta zla i puta dobra, tj. između grijeha i dopuštenog, o tome u Kur'anu Časnom stoji: ... *pa joj put dobra i put zla shvatljivim učini* ... (Eš-Sems, 8). Oprost i iskreno pokajanje skidaju slijepilo sa srca, i onda se čovjek može i treba vratiti Uzvišenom Gospodaru. Pokajanjem ljudi trebaju ukloniti sljepoću iz srca i misli, kroz pokajanje trebaju se vratiti Milostivom, jer ipak je On taj kod koga je utočište.

Od Jakuba i njegovog sina Jusufa, preko Šuajba, a. s., pa do Muhammeda, a. s., prošla su stoljeća, najvjerojatnije i dva tisućljeća. U sedmom stoljeću nove ere, Božji poslanik Muhammed, a. s., jednom je bio uključen u ozbiljan razgovor s Velidom ibn el-Mugirom, jednim od vodećih aristokrata Mekke, za kojeg se nadao da će ga prevesti na islam. Tom prilikom slijepi čovjek, Ibn Ummi Mektum⁴¹, svratio je i pitao Božjeg Poslanika, s. a. v. s.,⁴² da mu navede (prouči) neke kur'anske ajete. Zao kupljen razgovorom, Božji Poslanik nije odgovorio. Ibn Umm Mektum inzistirao je,

³⁸ Hud, 91.-94.

³⁹ Hud, 95. O Šuajbu, a. s., više v.: Muhammed Ahmed Džadul-Mevla, *Kasasul-Kur'an*, Darul-džejl, Bejrut, 1973., str. 107-110.

⁴⁰ Ibrahim Hodžić, "Čovjek u žiži kur'anske misli", *Takvim*, 1986., str. 10.

⁴¹ Abdullah Ibn Umm Mektum nije bio samo drug (*ashab*) Božjeg poslanika Muhammeda, a. s. Na osnovi povijesnih izvora poznato je da je ovaj slijepi čovjek Božjeg Poslanika zamijenio u državičkim poslovima dva puta, a da je trinaest puta predvodio zajedničku molitvu tijekom ratnog odsustva Božjeg Poslanika. Čak je sudjelovao i u oružanim borbama. Između ostalih i u onoj na Kadisiji protiv Perzijanaca, tražeći da on nosi zastavu. Inače, bio je rođak Hatidže, najviše voljene i prve supruge Božjeg poslanika Muhammeda, a. s. Puno ime ovog slijepog čovjeka je Abdullah b. Šurejh b. Malik b. Rebi'a, Fihri, iz plemena Benu Amir. (Više v.: Martin Lings, *Muhammed, život Vjerovjesnika islama zasnovan na najranijim izvorima*, Conectum, Sarajevo, 2005., str. 192.)

⁴² Cjeloviti tekst kratice s. a. v. s. na arapskom jeziku glasi: *sallallahu alejhi ve sellem*, što znači: Bog ga blagoslovio i spasio.

dok nije prekinuo razgovor, što je uzrujalo Božjeg Poslanika. Razgovor je bio naglo prekinut, Božji Poslanik se namrštio, ljutito pogledao slijepog čovjeka i nastavio ne ispunjavajući njegov zahtjev. Kada se Božji Poslanik smirio, počela ga je gristi savjest zbog takvog ophođenja prema slijepom čovjeku⁴³. Nakon ovog događaja uslijedilo je i objavljivanje sljedećih kur'anskih ajeta (stih): *On se namrštio i okrenuo zato što je slijepi njemu prišao, a šta ti znaš - možda on želi da se očisti, ili pouči pa da mu pouka bude od koristi*⁴⁴. Kroz Božju intervenciju ukazano je Muhammedu, a. s., na pogrešku u komunikaciji s Ibn Umm Mektumom.

Prijevod Kur'ana predstavljaju interpretaciju, tj. tumačenje izvornog Teksta, koji je na arapskom jeziku od Boga objavljen Muahmmedu, a. s. Do sada je Kur'an nekoli-ko puta preveden na srpski, hrvatsko-srpski i bosanski jezik⁴⁵. Nažalost još uvijek ne postoji niti jedan prijevod na hrvatski jezik, no iskreno se nadamo da će se i to zbiti u doglednoj budućnosti. Do tada se nesumnjivo mogu rabiti već postojeći prijevodina spomenutim jezicima. Nažalost u prijevodima Kur'ana na bosanski i srpsko-hrvatski jezik nije se mnogo pozornosti pridavalo razlici između slijepa čovjeka i slijepca, te je tako došlo do pogrešnog prijevoda kur'anskih stavaka, osobito s obzirom na suru 80 i njen prijevod na naš jezik. Naime o povodu objavljivanja sure 80 prethodno je bilo riječi, a jedan od razloga upravo je bio slijepi čovjek Ibn Ummi Mektum.

⁴³ Muhammed Husejin Hejkel, *Život Muhammeda, a. s.*, El-Kalem, Sarajevo, 2004., str. 198.

⁴⁴ Neznatno modificiran Korkutov prijevod.

⁴⁵ S prevođenjem Kur'ana na južnoslavenskim područjima počelo se u devetnaestom stoljeću. Prvi cjelovit prijevod na jedan od južnoslavenskih jezika, srpski jezik, osmislio je Mićo Ljubibratić, posredstvom drugih europskih jezika, krajem 19. stoljeća, točnije 1895. Muslimanski teolozi (ar. *ulema*) većinom su se protivili prevođenju Kur'ana na bosanski jezik. Razlog tome leži u ogromnoj pobožnosti i strahu da se ne izgubi svetost koju sadrži originalni arapski tekst. No usprkos protivljenjima nekih teologa, tridesetih godina prohujalog stoljeća Mehmed Džemaludin Čaušević i Muhamed Pandža zgotovili su prijevod Kur'ana na bosanski jezik (1936.). Osim prijevoda, potonji učenjaci paralelno s prijevodom Teksta sastavili su i Tumačenje Kur'ana. U isto vrijeme Kur'an je prevodio i Ali Riza Karabeg, hercegovački tradicionalni teolog, koji prijevod Kur'ana publicira 1937. Poslije nabrojanih prijevoda prošlo je neko vrijeme, a na tržištu se nisu pojavljivali novi prijevod Kur'ana. Islamska vjerska zajednica SFRJ-a šezdesetih godina pokrenula je projekt prevođenja i tumačenja kur'anskog teksta na srpsko-hrvatski jezik. Nositelj ovog projekta bio je profesor Islamskog teološkog fakultet Husein-ef. Dozo. Nakon prevedenih i protumačenih prvih osamdeset stranica Kur'ana, koje su publicirane u tri sveska, i na stranicama glasila Islamske vjerske zajednice u Jugoslaviji, od ovog projekta se odustalo. Nakon ovog neuspjelog projekta pojavio se prijevod Kur'ana Besim efendije Korkuta. Besim Korkut (1904-1975) studirao je teologiju na teološkom Sveučilištu el-Ezher, a za vrijeme Kraljevine Jugoslavije predavao je na Višoj islamskoj teološkoj školi u Sarajevu (danas Fakultet islamskih nauka u Sarajevu). U vrijeme SFRJ-a prelazi na Orijentalni institut, a predavao je i na Filozofskom fakultetu u Sarajevu na Odsjeku za orijentalne jezike i književnost. Napisao je udžbenik iz arapskog jezika, a njegov najznačajniji poduhvat predstavlja prijevod Kur'ana na srpsko-hrvatski jezik na kojem je radio cijelo desetljeće. Poslije raspada bivše Jugoslavije pojavljuje se prijevod Kur'ana inženjera Mustafe Mlive i profesora Fakulteta islamskih nauka u Sarajevu Enesa Karića. U prvom desetljeću ovog stoljeća iz tiska su izašla dva prijevoda na bosanski jezik. Riječ je o prijevodu Esada Durakovića, profesora arapskog jezika s Filozofskog fakulteta u Sarajevu, koji je radio na prijevodu desetak godina, prevodeći s arapskog jezika. Drugi prijevod osmišljen je na osnovi engleskog prijevoda Muhammeda Asada. Riječ je o komentaru Kur'ana koji je naslovljen u bosanskom jeziku *Poruka Kur'ana* (o prevođenju Kur'ana na južnoslavenske jezike više v.: Enes Karić, *Hermeneutika Kur'ana*, Hrvatsko filozofsko društvo, Zagreb, 1990., str. 43-89.)

Prevodilac Kur'ana	Prijevod prvog ajeta sure 'Abese (80, 1)
Miće Ljubibratić	"On (Muhammed) je pokazao namršteno čelo i okrenuo leđa, zato što je jedan slijepac pristupio k njemu"
Ali Riza Karabeg	"On (Muhammed) je pokazao namršteno čelo i okrenuo glavu, zato što je jedan slijepac pristupio njemu"
Džemaludin Čaušević i Muhammed Pandža	"Namrgodio se i okrenuo zato što mu je došao slijepac."
Besim Korkut	"On se namrštio i okrenuo zato što je slijepac njemu prišao"
Mustafa Mlivo	"Namrštio se i okrenuo, jer mu je slijepac došao"
Enes Karić	"Namrštio se i okrenuo, zato što mu je slijepac prišao"
Esad Duraković	"Namrštio se i okrenuo se zato što mu slijepac priđe"
Muhammed Asad	"On se namrštio i okrenuo zato što mu je slijepac prišao"

Iz citiranih prijevoda kur'anskih ajeta iz sure 80 uočava se da je upotrijebljena riječ slijepac. Na osnovi povoda objavljivanja ovog kur'anskog ajeta poznato je da se radi o slijepom čovjeku, a arapsku riječ "e'ama", u ovom bi slučaju trebalo prevoditi kao slijepi ili slijepi čovjek. Izuzetak u tome je nesumnjivo prijevod Časnog Kur'ana Seida Zenunovića⁴⁶, čiji je prijevod djelomično sačuvan, a priredio ga je emeritus prof. dr. Omer Nakičević s Fakulteta islamskih učenja u Sarajevu. Naime Zenunović, koji je i sam pred kraj života oslijepio, prevodi kur'anske ajete iz sure 80 ovako: *I okrenu se Muhammed peygamber i namrgodi kada mu je došao slijep: (Ja, Muhammed, ti dokazuj onom koji te pita), možda će se on očistiti ili će se sjetiti nekih grijeha pa će mu koristiti sjećanje.*

U drugom ajetu ove sure naši prevoditelji, i oni koji su prevodili izravno s arapskog jezika i oni koji su prevodili posredstvom nekog drugog jezika, upotrijebili su imenicu umjesto pridjeva, *slijepac* umjesto *slijep čovjek*.⁴⁷ Nadalje, može se konstatirati da znanstvenici koji su pisali o leksiku Kur'ana smatraju da se u ovom slučaju radi o

⁴⁶ Hafiz Sejjid Zenunović i njegov prijevod Kur'ana, priredio prof. dr. Omer Nakičević, Fakultet islamskih nauka u Sarajevu, Sarajevo, 2002.

⁴⁷ Jusuf Ramić, *Naši prijevodi Kur'ana i stil kur'anskog izraza*, Conectum, Sarajevo, 2010., str. 70.

pridjevu, a ne o imenici, te da je riječ o osobi koja ne posjeduje očinji vid, a ne o osobi okamenjenog srca⁴⁸.

Uz spomenutog druga Božjeg Poslanika, a. s., vezuje se još jedan trenutak iz života Muhammeda, a. s. Naime Abdullah ibn Umm Mektum upitao je Božjeg Poslanika: "Božji Poslaniče, ja sam na ovom svijetu slijep. Hoću li i na drugom svijetu biti slijep?" Tada je objavljen ajet: *Nisu slijepi njihove oči, već su slijepa njihova srca koja se u grudima nalaze...* (Al-Hagg, 46)⁴⁹

U Časnom Kur'anu kaže se: *Nije grijeh slijepom, niti je grijeh hromom, niti je grijeh bolesnom, a ni vama samima da jedete u kućama vašim, ili kućama očeva vaših, ili u kućama matera vaših... nije vam grijeh da jedete zajednički ili pojedinačno!* (24, 61) Interpretatori Riječi Božje kažu da su muslimani nakon ovih objavljenih stavaka (*ajeta*) počeli sa slijepima, hromima, bolesnima i siromašnima jesti i družiti se u svojim domovima bez ikakve rezerviranosti i ustezanja. Kao rezultat toga, osobe s invaliditetom ili bolesti nisu bile ni u kojoj formi izolirane od društva i živjele su, koliko im je to bilo moguće, poput ostalih ljudi.

Neophodno je biti svjestan da slijepi i slijepac nisu isti, čak i tekstovi Božje objave i Predaje o tome govore, razgraničavajući ove dvije skupine ljudi. Naime odgovornost je umnogome skrivena u jeziku, te je stoga važan izbor riječi, pri čemu je bitno imati više senzibiliteta prilikom prevođenja.

Božja riječ podcrtava razliku između ljudi koju su slijepi, tj. ne posjeduju očinji vid, i onih koji su slijepci, u duši zli, okamenjenih srca, ali ipak vide očinjim vidom. Ova posljednja skupina ljudi spominje se na dosta mjesta u Časnom Kur'anu. Osim slijepih ljudi, u Kur'anu se spominju ljudi bolesnih srca, koji su zapravo slijepci. Zanimljiv je jedan od kur'anskih pogleda na slijepce: *Zašto oni po svijetu ne putuju pa da srca njihova shvate ono što trebaju shvatiti i da uši njihove čuju ono što trebaju čuti, ali, oči nisu slijepa, već srca u grudima.* (22, 46)

2.1. Kur'an na Brailleovu pismu i slijepi čuvari Božje objave

Prijevod Kur'ana na Brailleovu pismu tek odnedavno postoji na bosanskom jeziku. Do sada je na Brailleovu pismu u dva navrata tiskan prijevod Kur'ana Besima Korkuta na bosanski jezik. Prvi put je izvršeno tiskanje u 30 primjeraka 2001. godine, s tim da je ovaj projekt novčano pomogao ISESKO, dok je drugi put prijevod Kur'ana na Brailleovu pismu izašao 2011., pod pokroviteljstvom Ambasade Kraljevine Saudijske Arabije. Biblioteka za slijepa i slabovidne osobe u Bosni i Hercegovini uspješ-

⁴⁸ Više v.: *Isto*, str. 70.

⁴⁹ *Isto*, str. 72.

no je završila projekt "Proizvodnja Kur'ana Časnog", prijevod Besima Korkuta na Brailleovu pismu u nakladi od 200 primjeraka. Jedan primjerak sastoji se od osam svezaka, što ukupno iznosi 1.600 svezaka. Vrijednost projekta je 76.323,45 eura, a sredstva je osigurala vlada Kraljevine Saudijske Arabije⁵⁰. Cjelokupni spomenuti projekt podržala je Islamska zajednica Bosne i Hercegovine.

Osim tiskanja literature na Brailleovo pismo, Islamska zajednica u Bosni i Hercegovini pokušava se skrbiti i o vjeronaučnoj izobrazbi slijepih ljudi, te je stoga na Brailleovu pismu završeno i osam udžbenika za islamski vjeronauk, koji uče i slijepa i slabovidna djeca, a nastavu izvodi kvalificirani vjeroučitelj, kojeg je imenovala i postavila Islamska zajednica u Bosni i Hercegovini⁵¹.

Još jedan vid poštovanja i njegovanja islama, osobito među slijepim ljudima u Bosni i Hercegovini je i institucija hifza (memoriziranje cjelokupnog Kur'ana napamet). Na našim područjima živio je znatan broj Čuvara Božje objave koji su znali cijeli Kur'an napamet (arap. *hafiz*), a pri tome bili slijepi. Indikativan je broj slijepih Čuvara Božje objave koji su izvrsno poučavali Riječi Božjoj druge ljude i samim time prenijeli odgovornost čuvanja Božje objave svjesno i odgovorno na buduće generacije. Na bosansko-hercegovačkim prostorima bio je velik broj slijepih hafiza, kao što su: Alija, sin Ebu Bekrov (u. 1876.), Šakir-ef. Muhibić, Mustafa-ef. Vučjaković (u. 1881.), Ahmed-ef. Temim, sin Mehmedov (u. 1929.), Bajram Lekić (1944.), Sulejman-ef. Repak (u. 1964.), Mustafa-ef. Snaga (u. 1975.), Halil-ef. Repak (u. 1978.), Ali Osman-ef. Smajić, Asim Pušina (u. 1981.) i dr.,⁵² a jedan od prevodilaca Kur'ana pred kraj života je oslijepio; bio je to hfz. Seid Zenunović.

2.2. Slijepi u Predaji

Drugi izvor koji dolazi nakon Božje objave (Kur'ana) je Predaja (arapski *sunnet* ili *hadis*), a to su riječi i praksa Božjeg poslanika Muhammeda, a. s., te sve riječi i postupci drugih koje je on prešutno odobrio. Predaja je mjerodavna i smjerokazna za muslimane. Nije bio mali broj drugova Božjeg poslanika Muhammeda, a. s., koji su bilježili ono što su čuli od njega, tako da su i Predaje, poput bilježenja i pisanja Kur'ana, bile zapisane, ali neslužbeno, i u privatnim zbirkama.

⁵⁰ http://www.rijaset.ba/index.php?option=com_content&view=article&id=10712:zavren-prijevod-kurana-na-brajevo-pismo&catid=253:aktuelnosti-kat&Itemid=184 (preuzeto 3. 7. 2012.)

⁵¹ Razgovor obavljen s predstojnikom Vjersko-prosvjetne službe Islamske zajednice u Bosni i Hercegovini mr. sc. Muharem efendijom Omerdićem 19. 7. 2012. u 14 sati. Ovom prilikom mu zahvaljujemo na podacima i ukazanoj pomoći.

⁵² O slijepim hafizima više v.: Fadil Fazlić, *Hafizi u Bosni i Hercegovini u posljednjih sto pedeset godina (1860-2010)*, Fakultet islamskih nauka u Sarajevu i IC El-Kalem, Sarajevo, 2011.

Najznačajniji zapisničari Predaja, čije su zbirke hadisa očuvane do danas i na različite načine, kroz komentare, sažetke, izvode, dopune, prijevode i sl. na stotine puta obrađivane, su Buharija⁵³ i Muslim⁵⁴.

Analizom mnogobrojnih Predaja doći će se do zaključka da Božji Poslanik u ljudskoj riječi ne gleda samo prazan zvuk, ili puko sredstvo komuniciranja. Ona je izraz osobe, njezinog duhovnog stanja; ona je sudionik njegova duhovnog i vjerskog dinamizma. Zbog toga Muhammed, a. s., i naglašava njenu važnost u životu vjernika. Jer ovisno o tome kakva je, riječ za onoga koji je izgovori sadrži čast ili smutnju. Otuda je riječ pogodna za legitimiranje duhovnih vrijednosti svakog vjernika⁵⁵.

Kao i u mnogim drugim sferama ljudskog življenja, Božji poslanik Muhammed, a. s., i u odnosu prema slijepim osobama u potpunosti je promijenio dotadašnje kriterije i navike. Islam uspostavlja načelo da se život slijepa osobe vrednuje kao i život bilo koje druge. Božji Poslanik, s. a. v. s., uči da nema osuđivanja ili bilo koje vrste lošeg odnosa ne samo prema osobama s invaliditetom, nego općenito prema osobama s bilo kakvom bolešću. Božji Poslanik isticao je da bolest, sama po sebi, ne može degradirati i umanjiti dignitet ljudskog bića, ako ono ispunjava sve duhovne i moralne kriterije. Isticao je da će Uzvišeni Allah posebno nagraditi osobe koje su bolesne i žive s invaliditetom, ako budu strpljive u takvom stanju i naglašavao da će muslimanu svaki put kada se razboli ili na najbezazleniji način povrijedi, jednim ubodom trna, primjerice, mali grijesi biti izbrisani. Jednom je čak rekao: "Onome koga Allah iskuša oduzimanjem očnjeg vida pa se on strpi i nada Božjoj nagradi – nagrada će mu biti Džennet!"⁵⁶

Time je Muhammed, a. s., pružio osobama s invaliditetom više samopouzdanja i uklonio tugu s kojom su živjeli jer su postali potpuno ravnopravni članovi društva. Božji Poslanik traži da ljudi međusobno komuniciraju i da bez ustručavanja posluju s osobama s invaliditetom i bolesnima, kao i sa svima drugima. U njegovu najbližem okruženju, među ljudima u koje je imao najveće povjerenje, bilo je slijepih osoba. Jedan od prijatelja Božjeg Poslanika Ebu Hurejra, r. a., prenosi da je slijep čovjek došao do Božjeg Poslanika, s. a. v. s., i pitao ga: "O, Allahov Poslaniče, ja nemam nikoga ko bi me mogao voditi do džamije, pa mogu li ja molitvu obaviti (klanjati

⁵³ Buharija je bio znameniti muslimanski učenjak, koji je cijeli svoj život posvetio sakupljanju pravovaljanih Predaja Božjeg poslanika Muhammeda, a. s. Zbirka Predaja koju je sakupio smatra se najvjerodostojnijom. U njoj se nalazi nekoliko tisuća predaja. U djetinjstvu je imao problema s vidom. Buharijeva zbirka više puta prevedena je na bosanski jezik. Na posljednjem prijevodu, koji je nedavno objavljen, radio je cjelokupan tim teologa i lingvista.

⁵⁴ Muslim je još jedan od hadiskih učenjaka. Svoj je život posvetio sakupljanju predaja, s tim da je zbirka koja je dobila ime po njemu bolje ustrojena nego Buharijeva. Muslimova zbirka samo je djelomično objavljena na bosanskom jeziku.

⁵⁵ A. Silajdžić, *40 hadisa sa komentarom*, str. 121.

⁵⁶ Ahmed ibn Hanbel, *Musned*, Mu'essesetur-Risala, Bejrut, 2001., XXI, str. 421.

se) kod kuće?" Božji Poslanik mu je dopustio i slijepi ashab (drug Božjeg Poslanika) krenuo je, a onda ga je Božji Poslanik, s. a. v. s., pozvao i upitao ga: "A čuješ li ti poziv (*ezan*) na molitvu (*namaz*)?" Slijepi reče: "Da." Božji Poslanik je tada rekao: "Onda, za tebe ne nalazim opravdanje"⁵⁷. Ovo se tumači podrazumijevajući činjenicu da se u džamiji, dolazeći pet puta dnevno, slijepa osoba može socijalizirati i komunicirati s drugima. Tako slijepi bivaju sastavna jedinica zajednice, izgrađuju je i poboljšavaju. Društvo u islamu je moralne naravi, a društveni odnosi u njemu izgrađeni su na moralnim vezama ljubavi i samilosti, a ne samo na temelju materijalnih odnosa⁵⁸.

U više različitih situacija Božji Poslanik, s. a. v. s., skreće pozornost svojim sljedbenicima na posebno human i ljubazan odnos prema slijepim osobama. Tako je jednom prilikom rekao:

"Neka je proklet onaj koji skrene slijepu osobu s puta!"⁵⁹

U drugoj predaji je rekao:

"Vaš osmijeh bratu je čovjekoljublje, odobravanje onoga što je dobro je čovjekoljublje, neodobravanje lošeg je čovjekoljublje, pokazivanje puta onome ko je zalutao je čovjekoljublje, pomaganje slijepome je čovjekoljublje, uklanjanje s puta svega onoga što smeta je čovjekoljublje, davanje bratu od svoga dijela je čovjekoljublje."⁶⁰

Uočljiv je podatak da je nekoliko znamenitih učenjaka i poznavalaca Islamske Predaje bilo slijepo cijeli život ili su tijekom života oslijepili, kao što su: Abdullah ibn Abbas (u. 687.), Abdullah ibn Amr ibn el-As (u. 682.), Džabir ibn Abdullah (u. 697.), Itban ibn Malik, Kab ibn Malik (u. 670.), Abdullah ibn el-Haris ibn Džez' (u. 705.), Katada (u. 736.), Ata' ibn Ebi Rebah (u. 732.), Vuhejb ibn Halid al-Bahili (u. 782.), Abdurrezzak ibn Hemmam es-San'ani (u. 826.), Jusuf ibn el-Madžišun (u. 828.), Suvejd ibn Seid (u. 854.), Ebu Isa et-Tirmizi (u. 892.) i dr. I znameniti sakupljač i bilježnik Predaja Buharija u djetinjstvu je ostao bez vida, ali je nakon liječenja i usrdnih molitvi svoje majke pogledao.

⁵⁷ Ebu Davud, *Sunen*, El-Mekteba el-asrija, Bejrut, I, str. 151.

⁵⁸ Seid Ismail Ali, "Vjerovjesnikov, s. a. v. s., sunnet kao izvor islamske pedagogije", u: Seid Ismail Ali, Jusuf el-Karadavi i Muhammed Selama Gabari, *Dimenzije sunneta*, izbor i prijevod Zuhdija Hasanović, El-Kalem i CNS, 2012., str. 61.

⁵⁹ Ahmed, *Musned*, Mu'essesetur-Risala, Bejrut, 2001., III, str. 368.

⁶⁰ Et-Tirmizi, *Sunen*, Dar el-Garb el-islami, Bejrut, 1998., III, str. 404.

Zaključak

Mnogi slijepi ljudi zadužili su ljudsku civilizaciju i to mnogo više no što to znamo i što smo svjesni. Među onima koji su mnogo pridonijeli islamu i muslimanima bili su i slijepi, među kojima su bili Božji poslanici: Jakub i Šuaib, te drugovi Božjeg Poslanika, s. a. v. s.: Abbas i njegov sin Abdullah, Abdullah ibn Umm Mektum, Itban ibn Malik, renomirani učitelj Kur'ana Abdullah ibn Habib ibn Rebi'a (u. 691.), poznavaoči Predaje poput Buharija i Tirmizija, poznati liječnik Ebu Bekr er-Razi (u. 925.), sufije (muslimanski mistici) kao što je Šihabuddin es-Suhreverdi (u. 1234.), lingvisti, književnici i pjesnici poput Hassana ibn Sabita, Ibn Menzura, El-Mearrija, Taha Huseina i mnogi drugi.

Svaki čovjek kojem je Bog darovao zdravlje treba biti neprekidno svjestan Božje milosti kojom je darovan. A s druge strane, to isto ljudsko biće trebalo bi biti odgovorno prema drugim ljudima koji žive s invaliditetom. Pomoći tim ljudima može se riječju i djelom, pri čemu je neophodno biti svjestan i truditi se da ne povrijedimo u komunikaciji drugu osobu ružnom riječju, kao što je, primjerice, slučaj s poistovjećivanjem riječi slijepi i slijepac.

Ovo može biti dobra prilika i za osobno propitivanje. Vidimo li mi sami? Omogućavaju li nam oči da vidimo i druge, a ne samo materijalne vrijednosti u svijetu koji nas okružuje? A ako već vidimo, koliko pomažemo drugima da progledaju?! Ne samo riječju, nego našim ukupnim odnosom prema životu!

I na kraju bismo završili riječima Svemilosnog, koje nam mogu biti vodilja za pravovaljanu i iskrenu komunikaciju sa svim ljudima, i to osobito sa slijepima: *Zar ne vidiš kako Allah navodi primjer - lijepa riječ kao lijepo drvo: korijen mu je čvrsto u zemlji, a grane prema nebu; ono plod svoj daje u svako doba koje Gospodar njegov odredi - a Allah ljudima navodi primjere da bi pouku primili.* (Ibrahim, 24-25)

Orhan Jašić, Zuhdija Hasanović

The blind in islam

ABSTRACT

The attempt of this paper is to briefly emphasize the difference between the concepts of the blind and heartless (those with blind hearts) in the God's revelation (the Qur'an) and in Islamic Tradition (Hadith). The God's Revelation and Tradition as two basic sources of Islam, and therefore Islamic moral teachings, preach about blind people in a positive sense, but on the other hand, condemn those with blind hearts or people whose hearts are made of stone. The importance of nice a word in the Islamic way of daily life and building interpersonal relationships is also underlined. Especially with the blind people, who like every other human being need a nice word. The first part of the paper is dedicated to the narratives of Jacob (Jacob) and Shuajb (Jethro), Prophets, who were blind in one period of his life. In addition, another person called Abdullah ibn Umm Mektum, who was the Prophets friend and also a blind man, is mentioned. He had a special place in the sacred history, since he was the cause for reveling some verses (ajats) from Qur'an. The work puts accent on some mistakes in the translations of the Qur'an into Bosnian (Croatian) language in regard to the word *blind*. The majority of translators made mistakes in the translation of the word. Namely, translating blind as a man blind to heart. This paper also analyses the lists of traditions about the blind people. In the conclusion, there are stressed the importance of responsibility from the aspect point view of Islam with the caution of using the word blind, both in speech and interaction.

Key words: Islam, God's revelation, Tradition, communication, the blind, blind to hart.

Martin Javor*

Nursing in territory of Slovakia - institutional changes

ABSTRACT

History of nursing in Slovakia is an issue lying at the edge of an interest in Slovak historiography. My contribution is devoted to the transformation of nursing and the development of the language of medicine in Slovakia from the early 20th century. Nursing was subjected to an interesting development in the 20th century and the changes of the language of medicine were connected with it. The first professional nurses were members of the Slovak women's associations; one of the most famous members was Janka Hrebendova, the first organizer of caring for the wounded on the battlefield and Elena M. Soltesova, the league organizer. In 1919 she founded the Czechoslovak State University, in which the nursing lectures were given at the Medical Faculty. In 1929 the first nursing school in Slovakia was founded. Nursing education expanded considerably after World War II. The legislative framework was developed and a number of secondary medical schools were founded. Nowadays in Slovakia there are several secondary schools and universities that offer nursing curriculum at all levels of study. This paper highlights the interconnectedness of religious nursing environment with the nursing female emancipation movement in Slovakia in the first half of the 20th century although Slovakia was relatively conservative and Catholic country.

Key words: Nursing history. Slovakia. Nursing Education. Professionalization of Nursing.

Slovakia is a relatively young country, its modern history has been written since 1993, though the country is very rich in history and research on the history of Slovakia is absolutely interesting. The territory of Slovakia was divided within five state units in the 20th century. It began as a part of Austria - Hungary monarchy at the

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beginning of the century; from 1918 to 1938 it was a part of the first Czechoslovak Republic; in 1939 to 1945 it became a part of the fascist Slovak Republic. After World War II was the part of a communist Czechoslovakia; it has become an independent country in 1993 until now. Research of any of the selected aspect of the history of Slovakia is also due to the historical fragmentation extremely difficult but very interesting.

Slovak history in spite of this handicap is full of interesting personalities and historical parallels. Slovak health care and nursing were influenced by the events that went along with the Slovak nation from the earliest period. It is interesting that in an area of different languages it was necessary to speak the language of each minority, which was characteristic for the healers from the Middle Ages. A prototype of a healer in Slovakia in the 16th - 17 century – he or she spoke German, Hungarian, Slovak, Latin and Ruthenian.¹

Nursing or health care started on the basis of folk medicine as elsewhere in the world. We can mention Celts where natural healing was mixed with a cult, as it is seen in Slovak site Havránok, Liptov. Some new methods of healing were brought to the territory of Slovakia by the Romans, who focused mainly on military healing. It is presented not only by findings of various types of healing items, but also in a literature, which the world-famous is a debate of a philosopher on the throne, the Roman Emperor Marcus Aurelius, who wrote his famous *Meditations* next to the River Hron in the second century.

A new healing impulse from a Slavic environment came after an interruption of an ancient line. The Slavs came into our country from the fifth century. We get to know about the supernatural forces that control the health and human diseases in the Slavic mythology in Slovakia. Healers were mostly women. We can say that health care was not a professional activity up to the tenth century. Professional health care started after the arrival of Christianity in our area in 863. The shelters for the sick originated, the monastic healing developed. Benedictines, who founded the monasteries in Nitra and Hronský Beňadik, came into the Slovak territory in 1000. The main activity of the monks was a care of patients. From 11th – 12th century monasteries originated in the territory of Slovakia, which in addition to charitable activities paid attention to healing of sick people. The first hospitals and shelters were opened besides them. The urban hospitals were opened from the 14th century, 1340 in Trenčín, 1362 in Trnava, etc. Hospitalized patients were treated primarily by members of religious orders. They were treated in the urban hospitals by civilian caregivers, too. It must be said that comparing the ancient, medieval pe-

¹ Farkašová Dana: *História ošetrovateľstva*. Bratislava 2010, p.12.

riod was really a dark period of nursing. Nursing methods were quite primitive, folk medicine continued its predominance and the language of medicine was mostly primitive, folk.

The first monastery in Slovakia was probably founded about 1000 AD by Benedictines besides the monastery of St. Hippolytus on the hill Zobor in Nitra. About 1075AD 16 Benedictine monks established their most important seat in Hronský Sv. Beňadik; it is assumed that they set up also a shelter. In 1180 Dominicans established a hospital in Banská Štiavnica. In 1283 Antonites administrated Holy Spirit Hospital in Košice, moreover in 1346 Carthusians founded a hospital in Spišská Nová Ves. The first monastery hospital in Bratislava was founded in 1095 by Antonites, who were summoned by King Ladislav (1040-1095). A complex of monastery, church and hospital after repeated invasions of Tatars, Turks, the Hussite army and Tököly's rebels in 1683 was perished. In 1830 a church of St. Ladislav and later a hospital were built on its place and last until now. Urban hospitals in Slovakia were managed by a city council, the local priest and representative of the Order, whose members were in charge of treating the sick. They usually accepted up to 10 patients because hospitalization charged the city treasury. Hospitals in our cities originated from 14 century: in 1340 in Trenčín, 1362 in Trnava, 1380 in Banská Bystrica, 1382 in Kremnica, 1391 in Nová Baňa, in 1400 in Spišské Podhradie and in 1418 in Bardejov. Recapping the medieval period, we can sum up that the hospitals specialized firstly on accommodation and entertainment. They were founded mainly by monks in their convents, and later by cities and principalities. Later facilities were detached from them and provided medical and nursing care.²

Nursing activities had the considerable importance not only because they allowed treatment of the poor and abandoned, but also because they gathered experience of previous generations, enriching them and passed out of the monastic establishments in our territory. Charitable nursing was primarily focused on meeting the most basic needs of life, thus the shelter, providing food, hygiene, spiritual support, and later to the medical care. Charitable nursing affected other development of nursing and nursing education for several centuries and works on till now.³

Professional nursing developed together with the development of medicine, education in medicine and the establishment of hospitals. Although it was closely related to its founder Florence Nightingale, some professional training, which was required by hospitals and public health, already existed before. There were founded several

² Dobříková – Porubčanová: *Nevyliečiteľne chorí v súčasnosti. Význam paliatívnej starostlivosti*. Trnava 2005, p. 30 – 31.

³ Farkašová Dana: *Ošetrovatelstvo – teória*. Bratislava 2005, p. 23. See also Farkašová Dana: *História ošetrovatelstva*. Bratislava 2010

hospitals on the territory of Slovakia; in 1095 in Bratislava, in 1340 in Trencin, in 1362 in Trnava in 1369, in Kosice in 1380, in Banska Bystrica and in 1382 in Kremnica. The trained nuns and civilian nurses treated the patients in hospitals. We can talk about the professional nursing from the beginning of a period of "nursing reformation", pioneered by Florence Nightingale.

The establishment of Faculty of Medicine (1770) at the Jesuit University of Trnava, already founded in 1635, had a practical and symbolic importance for Slovak nursing. Midwives were educated there, too. This fact positively affected midwives, also doctors, nurses and the public. For the first time in our history not only the doctors but also midwives had to have the institutionalized education. 121 midwives obtained diploma at University of Trnava from 1770 to 1777. The first textbook about midwifery, whose author was Professor Rafael Ján Cherney, was issued in 1778.⁴

Nursing education was carried out while working, the younger learnt from the older and more experienced. Health and public health issues were not consistently and deeply addressed by any state health care institutions in Slovakia and the Kingdom of Hungary until the early 18th century. The cities, among them Bratislava, provided the most intensive health care. The city began to employ the town doctor called "fyzikus" who provided the basic health care; handled the problems of public health and hygiene and issued appropriate directives; furthermore, supervised the health care facilities that existed in the city.⁵

Later, the municipality became interested in the cleanliness of public spaces and monitored food safety. It employed a street sweeper, then faced unpleasant habits throwing the trash on the streets and provided cleaning of the spaces not only during the markets. The medical care was still inadequate. The healers and folk healers who were handymen and mastered people helped population. They became from barbers or balneo therapists, who along to their profession treated fractures, ulcers, wounds, were devoted to hydrotherapy and medication preparation out of medicinal herbs. Their help was crucial in the treatment during epidemics and visiting the sick in hospital. A city surgeon was responsible for a dead body inspection. Surgery was in contrast to internal medicine based on the level of craft professions.⁶

The progress in health care started after a period of Enlightenment by reforms of Maria Theresa and Joseph (1717-1780). In 1753 the position of urban fyzikus –

⁴ Farkašová, Dana: Ošetrovatelstvo – teória. Bratislava 2005, p. 24 – 25.

⁵ Falisová, Anna : Lekárske spolky a spoločnosti v Bratislave (1918-1945). In: Kapitoly z vedeckého života v Bratislave. Bratislava 1991, p. 626.

⁶ Duka – Zólyomi Norbert: Starostlivosť o zdravie v Bratislave v 18. storočí. In: Vlastivedný časopis 35, Nr. 2, 1986, p. 71 – 74.

physician was established. The municipality ensured health care, mainly hygiene based on the initiative of physicians. Medical personnel were subject to one person, the President of the Reich Committee. The rights and obligations of all healthcare professionals were regulated by standard from 1770. The foundation of the Brothers of Mercy hospital, which in the following period contributed significantly to the improvement of hospital facilities in Bratislava, played an important role within healthcare.

Professionalization of Slovak nursing was influenced by social, economic, social and cultural conditions, health status, democracy, humanism, the level of healthcare, but also the rights of people for education. In the late 19th century Slovakia survived a lack of social and national oppression. Like in other nations, we can find women who cared about the helpless, especially the sick and suffering.⁷ Nursing was at that time focused on activities in hospitals and primary health care.

Nuns and civilian nurses, who were generally trained, treated patients in very adverse conditions in hospitals and worked as required. Institutional nursing was focused on meeting the needs of the sick, assistance for some medical operations and providing running of departments. The conditions especially for midwives were created within the primary health care. Professional nursing was only in its beginning, but a qualified nursing was needed not only in hospitals but also in a socially, culturally and health care underdeveloped rural areas of Slovakia.⁸

Janka Hrebendová was a pioneer of nursing in Slovakia. She gained the basic knowledge about healing from her husband – a doctor. In the mid-19th century she organized the courses of wounds 'treatment and bandaging for women in hamlets near Myjava. She was also the first organizer of caring for the wounded on the battlefield to rescue the Slovak volunteers in 1848.⁹

A slight increase in nursing occurred during the major epidemics. In the 16th and 17th century the territory of Slovakia was very often attacked by epidemics of plague, smallpox, measles and scarlet fever. These epidemics often reduced the population of each area much as 70%. The earliest reports about public health care of the population were published by the rulers at the time of epidemics. A special commission, which had seized control of the epidemic measures and health situation in the country, was established besides Hungarian Governorate Council as late as in 1738.

⁷ Farkašová Dana: *Ošetrovatelstvo – teória*. Bratislava 2005, p. 25. See also Farkašová Dana: *História ošetrovatelstva*. Bratislava 2010

⁸ Farkašová Dana: *Ošetrovatelstvo – teória*. Bratislava 2005, p. 26. See also Farkašová Dana: *História ošetrovatelstva*. Bratislava 2010

⁹ Farkašová Dana: *Ošetrovatelstvo – teória*. Bratislava 2005, p. 25. See also Farkašová Dana: *História ošetrovatelstva*. Bratislava 2010

The state began to take care of health systematically only after the Age of Enlightenment. In 1738 the medical committee, regional and municipal doctors – physicians – *fyzikus* were established. In the 18th century the office of the county physician was introduced. The empress Maria Theresa issued the Royal Decree - *Generale normativum sanites* - the main rules of health care, which was the first medical legal norm in the country in 1770. The office of a county physician for each county was set in the norm. Other institutional changes appeared in the second half of the 19th century. In 1863 Hungarian Kingdom doctors association drafted the suggestions of improvements in health care. The proposal indicated the activities of midwives and nurses. In 1913, government regulation sought to create conditions for nurses served as volunteers in cooperation with the Red Cross. Doctors and hospitals were supposed to participate in preparing nurses. The first medical law, dated to 1876, altered the legal situation and relations in health care and adapted health care services to new requirements in towns and villages and played an important role in health care in the Kingdom of Hungary including the territory of Slovakia. In 1898, the issue of wages was handled; special attention was paid to midwives. The law determined that each municipality with a population of over 1,500 had to employ a midwife who provided free assistance and who was paid from the municipality. The wealthy women paid fees. Act from 1870 defined two types of midwives - diploma midwives, who underwent 5 - month course at midwifery school and midwives, so called "laber's midwives" who underwent a two-month course. In 1886 the Emperor Franz Joseph I. issued "*čeládnický poriadok*", an order which defined unlimited working time for nurses. The nurse was sanctioned in the case of negligence

The professionalization of nursing staff was related with population growth and the modernization of the society. The Regional Institute of Midwives was established in 1872. MD Ján Ambro, who was the author of Slovak textbook "The Book of obstetrics for midwives", became the head of the Institute. Training of nursing staff was not institutionalized at schools. Nurses, who worked in hospitals, prepared directly in their workplaces.

Interestingly, the institutionalization of nursing went hand in hand with the emancipation movement of Slovak women. The association of Slovak women *Živena*, which was founded in 1869, was very active. The association had in its program national awareness raising, but also improvement of the health of citizens. Establishment of the Slovak girls' school oriented on social and health care was proposed by General Meeting in 1896.

Before institutionalized education of nurses, they were trained in hospitals under the supervision of physicians and gained experience from their older colleagues. In the second half of the 19th century the Kingdom of Hungary belonged to the least

developed countries of Europe, because in practice enlightened reforms were not conducted in the extent and as consistently as in Bohemia and Austria

The Regional Institute of Midwives, which focused not only on maternal care but as well as midwives education, was established in 1872 in Bratislava. Institute began its work under the supervision of MD Ján Ambro, on 1st Jan 1873. Ambro is the author of the Slovak textbook "The Book of obstetrics for midwives" published in 1873 in Skalica.¹⁰ MD. Ambro is important not only among the pioneers of modern obstetrics, but also among the founders of the institutional training of midwives, which continued in the first Czechoslovak Republic after 1918.¹¹

The first nursing school in Austria – Hungary was founded in Prague in 1874. It lasted only until 1881. In 1914 the Austrian Ministry of Interior issued a regulation that nurses should be educated in a two-year nursing schools. The graduates finished with the title "diploma nurse." In 1916 a civilian nursing school, which greatly influenced nursing education and nursing practice in Slovakia, was established under this regulation in Prague. Another important person was Elena Maróthy - Šoltésová, a significant representative of the Association of Slovak women Živena, which was the cradle of Slovak women's vocational education. In 1896 General Meeting of Živena required to found Slovak girls' school.¹²

In 1914 the health care department of Ministry issued a decree that defined a two-year study program preparing nurses focused on hospital care, preventive, social and health care especially for children and home visiting. The first Czechoslovak nursing school was a school in Prague, dated to 1916. The study was a two-year, completed by the final examination and graduation diploma. The school had a high quality, preparing nurses for not only the nursing practice but also for the future education of other nurses.

The establishment of Czechoslovakia in 1918 positively influenced the social and -health care. In accordance with Act 2/1918 Ministry of Health Care and Physical Education established an affiliation in Bratislava with competence for Slovakia. Throughout the area, a system of municipal and general doctors, who were funded

¹⁰ see the Works of Eva Morovics: Morovicsová, Eva: Prvé ošetrovateľské školy v Čechách a na Slovensku a ich podiel na profesionalizácii ošetrovateľstva. In: Prínos zdravotníckych pracovníkov v zdravotno-sociálnej oblasti (minulosť a súčasnosť). Bratislava 2004, p 51 – 57. ; Morovicsová, Eva: Aktivita ČsČK zamerané na ošetrovateľstvo v prvej Československej republike. In: Červený kríž 2006, p 132 – 142.

¹¹ see the Works of Eva Morovics: Morovicsová, Eva: Prvé ošetrovateľské školy v Čechách a na Slovensku a ich podiel na profesionalizácii ošetrovateľstva. In: Prínos zdravotníckych pracovníkov v zdravotno-sociálnej oblasti (minulosť a súčasnosť). Bratislava 2004, p 51 – 57. ; Morovicsová, Eva: Aktivita ČsČK zamerané na ošetrovateľstvo v prvej Československej republike. In: Červený kríž 2006, p 132 – 142.

¹² Farkašová Dana: Ošetrovateľstvo – teória. Bratislava 2005, p. 25 - 26. See also Farkašová Dana: História ošetrovateľstva. Bratislava 2010

from state resources and the contribution of municipalities, was created. Physicians provided medical care, but also legal and social assistance. In addition to surgeries they carried out home visiting, preventive and epidemiological activities.

The broke-up of Austria - Hungary and the formation of the Czechoslovak Republic positively influenced Slovak nursing education, as well as improvement of the social and health care, especially in the areas of the Slovak countryside, which intensified the interest in nursing and the nursing profession. In 1919 there were founded the Czechoslovak State University, later Comenius University and Medical Faculty in Bratislava, which affected well the formation of nursing, especially nursing education.¹³ Nursing school in Slovakia, the first of its kind, was founded on 15th March 1929 in Bratislava by Sisters of Mercy of St. Cross. It firstly organized the nursing courses and in 1931 two- year nursing school of Congregation of the Sisters of Mercy of St. Cross was dedicated. A nun M. Fides Dermeková, graduated from nursing school in Prague, became a supervisor and assoc.prof., MD L. Valach was a director¹⁴ We can consider a nun M. Fides Dermeková as the founder of the Slovak nursing education.¹⁵ In 1932 the school of Sisters of Charity of St. Vincent was founded in Kosice.

The establishment of the first civilian nursing schools at the Institute M. R. Stefanik in Martin in 1933 had a historic significance for the Slovak nursing. The Nursing school was divided into two schools – The Provincial two-year social - health care school and the Provincial two-year nursing school as the first of its kind in Slovakia. Slovakia had in that period three nursing schools. A study in all schools was two-year, the female candidates aged 16 to 18, graduates of higher secondary, or a similar school were accepted. After a successful graduation a nurse got a diploma.

During the first Czechoslovak Republic nursing schools worked intensively to form nursing education, which influenced the changes in nursing practice. In 1946, Congress of Czechoslovak diploma nurses was held, which adopted a resolution aimed at nursing education, social conditions of nursing personnel and the organization of nursing.

The Higher nursing school preparing teachers of nursing, leaders and staff nurses was founded in Prague in 1946. There were co-founded other nursing schools –the State nursing school in Kosice, the School of Sisters Of Mercy of St. Vincent in Ni-

¹³ Farkašová Dana: *Ošetrovatelstvo – teória*. Bratislava 2005, p. 25 - 26. See also Farkašová Dana: *História ošetrovatelstva*. Bratislava 2010

¹⁴ Krištofová, Mária: *Prvá ošetrovateľská škola na Slovensku*. Nitra 2000, p 12.

¹⁵ Farkašová Dana: *Ošetrovatelstvo – teória*. Bratislava 2005, p. 26. See also Farkašová Dana: *História ošetrovatelstva*. Bratislava 2010

tra, the Nursing school of Czechoslovak Red Cross in Zvolen and Liptovský Mikuláš, the Nursing school of Sisters of Mercy of St. Vincent in Trenčín and the Nursing school of Daughters of St. Francis in Nové Zámky. There were already 9 nursing schools in Slovakia. Nursing at that time made considerable progress. In hospitals, although in a relatively unfavorable conditions, diploma nurses worked, too.

Hospital nursing care in addition to ensuring the basic needs of the sick increasingly focused on assistant duties. Progress in medicine, especially new diagnostic and therapeutic methods and their complexity required more staff as assistants to doctors. The nurses began to specialize in assisting in such operations as scrub nurses, work in laboratories, radiology, and diet therapy and so on. Nursing fulfilled an important role in primary health care. Nurses, graduates from the social - medical schools and later diploma nurses, worked independently. They focused on the most serious problems of Slovak towns and villages. They acted on population by associations such as Živena and the Red Cross, which also contributed to the establishment of the first civilian nursing schools in Martin. They organized for people, especially women various courses in childcare, diet and disease prevention, moreover, they were engaged in charitable activities, counseling for mothers and children, for older children, in the Masaryk League against Tuberculosis, performed nursing services in families, especially the poor ones. Some worked in the physician surgery providing medical, social and nursing services.

In 1927 the Regional Office in Bratislava was founded. Its advisory body became the Medical Board which carried out supervision of health care employees and public health care services. State activities focused on prevention of infectious diseases, especially vaccination. The fight against tuberculosis was led by the Masaryk League against Tuberculosis; child and mother care became more intensive. The foundations for health care education between citizens, both directly and through magazines and books were set during 1918 -1948. MD. Ivan Stodola founded a magazine *Fight for Health* in 1926.

The situation changed in the number of doctors after the foundation of the Czechoslovak Republic. In 1918 there were 250 doctors, of which only 25 Slovaks. In 1937, the number of physicians rose to 1,954, the establishment of the Medical Faculty in Bratislava in 1919 contributed to that increase. The Czech doctors contributed largely for its foundation and successful activity. The Slovak medical journals started to be issued, for example in 1921 Bratislava's Medical books were founded. The work of nurses was regulated by government decree no. 22 from 1927 about service and salaries of nursing staff. The group of nurses consisted of three categories: nuns, nurses without education and diploma nurses. The first nursing school in Slovakia was approved in March 1929 by the Minister of Public Health.

Only nursing courses were organized in the initial period. The Nursing School of Sisters of St. Cross was founded on the 2nd of November 1931. The second nursing school was established in 1932 in Kosice as Nursing School of Sisters of Mercy of St. Vincent. The establishment of the Institute of Milan Rastislav Štefánik in Martin, which was established on the initiative of Slovak women association Živena, played an important role within the Slovak nursing. The association initiated an establishment of a social care school and teaching institution for training of teachers for family education schools. The Slovak League in America and the Czechoslovak Red Cross financially and materially supported its establishment. The first two-year nursing school in Martin was founded within the institute in 1933.

Nursing and nursing education after World War II responded to the very difficult economic and social situation in the country. Health status and social conditions of majority of population were negatively impacted by war. Nursing was oriented primarily to help those affected by war, children without parents, socially deprived, lonely people and those who were returning from the battlefields and concentration camps.¹⁶

After the World War II the health education was to strengthen. Higher School of Nursing, where Slovak nurses studied, was established in Prague in 1946. The school prepared leading and staff nurses and teachers for nursing. A total number of 31 nursing schools including 9 in Slovakia were in Czechoslovakia in 1947. According to government regulation from 1927 nursing schools were linked directly to the hospital, where students underwent nursing practice.

The conditions in the socio - political situation changed after 1948. Nursing got into a very difficult situation. Not only the formation of autonomous nursing as a profession was in danger, but the nurses found themselves in the international isolation because the International Council of Nurses (ICN) excluded graduate nurses from the association. At the same time it began to pursue tendencies against the religious nursing schools. Working in hospitals was very difficult due to lack of staff and became more arduous, poorly remunerated, with unlimited working hours and became less attractive for prospective girls.¹⁷

After February 1948, the policy measures related to the dismissal of male and female orders were taken. The liquidation process in health care was due to a shortage of nurses slower. But already about 1954, there was a great shortage of adequately trained nurses. Because of ideological reasons, the liquidation process could not be

¹⁶ Farkašová Dana: *Ošetrovatelstvo – teória*. Bratislava 2005, p. 27. See also Farkašová Dana: *História ošetrovatelstva*. Bratislava 2010

¹⁷ Farkašová Dana: *Ošetrovatelstvo – teória*. Bratislava 2005, p. 29. See also Farkašová Dana: *História ošetrovatelstva*. Bratislava 2010

further extended and the religious orders, practicing nursing, were relegated. The term "nurse" has an origin in nursing. Instead of dismissed nuns, untrained civilian nurses trained in the "fast-courses" were hired. We can say that it was so called the second dark period of nursing in the countries which were under the political and economic influence of the Soviet Union. This intervention had long-term impact on the development of nursing as well as its positive image.¹⁸

The implementation of a system of general and vocational education was adopted due to Act No. 95/1948 Coll. There were established the higher socio - medical schools, the study lasted four years, ended with school leaving examination, the school had a two-year general education curriculum. In 1951 due to a shortage of nurses education was reduced to three years and specialized since the first grade but it did not yield the expected results.

From 1954 the medical schools were subject to the Ministry of Health which extended the study to four years. In 1955 advanced courses and later post-secondary education for graduates started. In 1980s there were 2,529 schools offering the higher nursing education in Slovakia. A major negative of nursing education was the fact that the immature youth was preparing for such a demanding profession.

In 1960 university education, especially for teachers of nursing, was opened at Charles University in Prague. The study specialized in two subject fields, nursing and psychology. In 1962, the same study was also founded at the Comenius University in Bratislava, the Faculty of Arts and the Faculty of Medicine, a specialization in psychology and nursing, then pedagogy and nursing. Institutionalized further education of nurses in Slovakia started in 1960 by foundation of the Institute for further education of health care workers in Bratislava. In 1972 professional association-SZP, which organized continuing non-institutionalized education, was founded by the Slovak Medical Association.¹⁹

In 1945 nursing was affected by the nationalization of health care, increasing number of institutional health care facilities, upload of nuns, and inadequate social and economic remuneration of nurses for their demanding work. Nurses worked according to governmental regulation "as needed" basis. The government had to deal very quickly with these changes. It was done by an increase of workload of nurses. Thus the nurse became "a girl for everything". This lasts *de facto* until now. The nurse in Slovakia is a person with the many duties in hospital but unfortunately the least paid.

¹⁸ Hanzlíková, Alžbeta: *Komunitné ošetrovatelstvo*. Bratislava 2004, p 28 – 29.

¹⁹ Farkašová Dana: *Ošetrovatelstvo – teória*. Bratislava 2001, p. 26. – 28. See also Farkašová Dana: *História ošetrovatelstva*. Bratislava 2010

Suzana Jurin*

Tipologija uporabnih tekstova u jeziku medicine: Dijagnoza kao tekstna vrsta asertivnog ili deklarativnog tipa?

SAŽETAK

Tipologija uporabnih tekstnih vrsta u hrvatskom jeziku malo je istraživana. Recentnija istraživanja koja sve najčešće uporabne tekstove pokušavaju klasificirati u tipove i analizirati ih, provedena su 2003. (Ivanetić), a klasificiranje i analiza svih najčešćih uporabnih tekstova u jeziku struke provedeni su 2010. (Jurin). Relevantnije analize tekstnih vrsta u jeziku medicine u hrvatskome na komunikacijsko-pragmatičnoj, tematskoj i jezično-stilskoj razini nisu provedene.

Ovaj rad provodi tekstno-lingvističku analizu tekstne vrste dijagnoza koja je klasificirana kao tekstna vrsta asertivnog tipa i pokušava dokazati da dijagnozu, već prema njezinoj komunikacijskoj funkciji i kriteriju situativnosti, možemo promatrati i kao tekst deklarativnog tipa. Prihvaćanje klasifikacije i analize dijagnoze kao deklarativnoga tekstnog tipa rješava komunikatora kognitivne problematike razumijevanja i uporabe ove tekstne vrste.

Ključne riječi: dijagnoza, tekstna vrsta asertivnog tipa, tekstna vrsta deklarativnog tipa

Uvod

Tekstna lingvistika promatra tekst s različitih aspekata i pritom dokazuje pluralizam pristupa, pluralizam pravaca te pluralizam načela i metoda opisa teksta. Jedan od najvažnijih zadataka tekstne lingvistike i lingvistike tekstnih vrsta jest sustavan opis uvjeta i pravila konstitucije uporabnih tekstova, kao i objašnjenje značenja tekstova za recepciju. Lingvistika tekstnih vrsta uči nas da se tekstovi strukturiraju i recipiraju u skladu s pravilima, što pridonosi boljem razumijevanju tuđih i stvaranju vlastitih

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tekstova, a time nam se olakšava i svladavanje komunikacijske prakse. Dijagnoza kao tekstna vrsta pripada medicinskim stručnim tekstovima i obnaša važnu zadaću u komunikacijskom procesu, u prvom redu između liječnika i pacijenta.

1. Cilj istraživanja

Tekstna vrsta dijagnoza u ovom se istraživanju promatra kao osnovni dokument koji dokazuje pacijentov status nakon liječničkog pregleda. U lingvistici tekstnih vrsta dijagnoza se klasificira kao tekstna vrsta asertivnog tipa (Ivanetić 2003:69), međutim ovdje će se dijagnoza zbog svojih funkcionalnih te mikro- i makrostrukturalnih karakteristika uvrstiti u tekstne vrste deklarativnog tipa. Za istraživanje i prikaz rezultata prikupljen je korpus od deset tekstova medicinske dijagnoze iz područja ginekologije.

2. O tekstu

Dakle, ako ga se promatra kao cjelokupnost svih komunikativnih izričaja koji u određenoj komunikacijskoj situaciji tvore koherentnu cjelinu i tako signaliziraju određenu komunikacijsku funkciju (Schröder 1993:195), može se reći da tekst ima sljedeće karakteristike (Sandig 2005:312): jezično je, monološki i grafemski fiksiran, ima temu, sastoji se od više rečenica koje su smisaono povezane te tvore smislenu cjelinu i ima socijalnu, kulturalnu i komunikacijsku funkciju.

Tekst je osnova svake komunikacije¹, a takva se komunikacija realizira u socijalnom i komunikacijskom činu. Tekst je slijed jezičnih znakova koji su uključeni u određenu komunikacijsku situaciju (Brinker 2000). Počiva na socijalnim konvencijama i njegova arbitrarnost dokazuje se manifestacijom različitih signala designata i referentata. Materijalna manifestacija jezičnog znaka (tijelo znaka) teksta jest jezik čiji se medij realizacije manifestira akustičkim i grafičkim realizacijama (Plett 1979:43). Tekst se promatra i kroz semiotički trokut, tj. svaki tekst posjeduje jedan signal u glasovnom ili grafičkom obliku, jedan denotat koji se vezuje za glasovno ili grafičko značenje, te jedan referent, tj. stvarnost na koju upućuje taj znak. Tekst je produkt komunikacije.

¹ Glovacki navodi nužnost uvođenja pojma tekstualnosti kao osnove svake komunikacije, i smatra da je tekstualnost nadređena kategoriji tekstu.

3. O tekstnim vrstama

Tekstne vrste su jedinice koje povezuju kognitivne, komunikacijske i djelatne aspekte i oblik su socijalne prakse. To su, isto tako, modeli koji sudionicima komunikacije olakšavaju orijentaciju u konkretnoj komunikacijskoj situaciji (Ivanetić 2003: 4). Tekstne vrste su globalni oblici teksta, dio su i naše svakodnevnice te našega znanja o komunikaciji, komunikacijskim oblicima i sredstvima.

Tekstne vrste su socijalno normirane složene sheme djelovanja koje stoje na raspolaganju govornicima nekog jezika (Sandig 1972:113), to su i jezične manifestacije (...) kognitivnih obrazaca (...) koje su se pokazale djelotvornima u postizanju specifičnih interakcijskih ciljeva (Heinemann 2000:523).

3.1. *Dijagnoza kao tekstna vrsta*

Dijagnostikom se, općenito, naziva postupak kojim se definira bolest ili patološko stanje, tj. proces koji vodi do dijagnoze bolesti. U tom procesu liječnik se rukovodi simptomima i znakovima bolesti. Simptomi se definiraju kao smetnje koje pacijent samostalno primjećuje, dok znakove bolesti uočava liječnik na pacijentu.

Proces dijagnostike sastoji se od anamneze, fizikalnog pregleda i ostalih dijagnostičkih metoda. Ispitivanje i pregled omogućuju liječniku upotpunjavanje slike o trenutnom stanju pacijenta te postavljanje prvotne dijagnoze koja se nakon toga potvrđuje aparativnim pregledom i dokumentira se.

Anamneza je skup podataka o bolesniku i sadrži sve okolnosti koje su prethodile sadašnjem stanju (osobito preboljele bolesti, hereditet i dr.).

Svi tako dobiveni podaci, zajedno s podacima dobivenim tijekom fizikalnog pregleda i dopunskih ispitivanja, bilježe se u poseban obrazac koji se naziva povijest bolesti.

Prema tome, dijagnoza prepoznaje i daje uvid te utvrđuje činjenice o tjelesnome ili mentalnom stanju ili zdravlju čovjeka te ih uobličuje tekstualno, tj. predočava ih komunikatorima u obliku tekstne vrste.

Zbog toga je dijagnoza tekstualni proizvod nakon objedinjavanja postupka anamneze i povijesti bolesti.

Kognitivno-tekstna vrsta dijagnoza ima veću jezičnu vrijednost (Saussure, de 2000: 181-185) jer pokriva anamnezu i povijest bolesti te predstavlja nadpojam.

Dijagnoza je, prema tome, kognitivni obrazac kojim se postižu rezultati u realizaciji specifičnih interakcijskih ciljeva između liječnika i pacijenta te liječnika i liječnika.

Dijagnoza je usmjerena prema komunikatorima s medicinskom izobrazbom i zbog toga mora imati jasno postavljenu strukturu koja kolege liječnike odmah obavještava o sadržaju i temi, evocirajući time odgovarajući kognitivni okvir i s njime povezana znanja (Ivanetić 2003:87). Sadržajna i strukturalna (makrostruktura teksta) tipizacija dijagnoze oslobađa komunikatora-pošiljatelja obveze da individualno uobličuje problematiku funkcije teksta, dok se komunikatoru-primatelju dodatno signalizira vrsta i funkcija dijagnoze te stanje stvari i zdravlja pacijenta. Čvrsta makro- i mikrostruktura teksta dijagnoze imaju funkciju osnovnoga i dodatnog informiranja, aktivnog očekivanja i usmjeravanja djelovanja. Ako je dijagnoza sredstvo komunikacije između liječnika i pacijenta koji vrlo često nema nikakvu medicinsku izobrazbu, potreba za čvrstom mikro- i makrostrukturom teksta dijagnoze još je izraženija.

4. Tipološka pripadnost dijagnoze

Dijagnoza, anamneza i povijest bolesti prepoznaju se u literaturi o lingvistici tekstnih vrsta kao tekstne vrste asertivnog tipa (Ivanetić 2003:69).

Asertivi su oni tekstovi kojima je cilj krugu primatelja prosljeđivati stručne i nestručne informacije na kognitivno-komunikativni način, a to znači da autori cijele tekstove strukturalno i funkcionalno oblikuju tako da služe optimalnoj i razumljivoj recepciji sadržaja i forme. Asertivima se usvaja izvanjezična stvarnost, oni prikazuju stvarna ili moguća stanja stvari. Komunikacijom asertivnim tekstovima pošiljatelj se obvezuje primatelju prenijeti istinitost propozicija, zaključaka, tvrdnji, izjava, činjenica itd. Asertivne tekstne vrste ovise o međudodnosu pošiljatelja i primatelja informacija i njihovoj međusobnoj obvezi za prijenosom istinite tvrdnje ili pripreme za buduću ili prošlu radnju. Tijekom komunikacije asertivima, u obzir se uzima i psihičko i intencionalno stanje pa tako i asertivi prenose informacije koje su izraz intencionalnosti i psihičkog stanja čovjeka, a ti se izrazi plasiraju u izvanjezičnu stvarnost (Liedke 1990:196). Prema navedenom, dijagnoza se u literaturi o tekstnoj lingvistici uvrštava u tekstnu vrstu asertivnog tipa, podtip informativ (Ivanetić 2003:69; Brinker 2000; Rolf 1993). Osnovna je funkcija informativa informirati, propozicija je teksta istinita/nije istinita/bit će istinita, a cilj je informativa da primatelj to uzme na znanje.

4.1. Promjena tipološke pripadnosti dijagnoze: Dijagnoza kao tekst deklarativnog tipa

Nasuprot asertivima, deklarativi su tekstne vrste koje stvaraju, održavaju, transformiraju i ističu institucionalnu izvanjezičnu stvarnost, kao i sigurnost realizacije procesa, reguliranje i normiranje tih procesa te jamče realizaciju izvanjezične stvarnosti (Rolf 1993:291).

Njihova je funkcija obvezati komunikatore na usklađivanje radnji s novim uvjetima izvanjezične stvarnosti. Uloga deklarativa jest dokumentirati i realizirati procese i promjene te situaciju iz izvanjezične stvarnosti (Rolf 1993:297). Namjera je tekstnih vrsta tipa deklarativ izazivanje promjena, pravac njihova djelovanja je dvosmjernan (prema instituciji i od nje), a psihički stav pošiljatelja irelevantan.

Dijagnoza stvara svijet time što ga pomoću jezičnoga djelovanja proglašava postojećim, tj. zdravstveno stanje osobe, sa svim posljedicama koje će to izazvati kod te osobe, kod njegove okoline i obitelji, proglašava se postojećim. Na taj se način jezik i svijet poklapaju. Iako se deklarativima institucionalno reguliraju društveni odnosi, stvara se nova realnost. Dijagnozom se institucionalno reguliraju društveni odnosi, tj. pacijenta se na temelju dijagnoze hospitalizira, institucionalni odnosi se u bolnici reguliraju, a pacijentova realnost postaje život u instituciji u kojoj mu se pruža nužna zdravstvena njega. Dijagnozom kao tekstnim tipom deklarativa izazivaju se promjene, kreirajući novu stvarnost. Tekstnom vrstom dijagnoza stvara se nova realnost u odnosu pacijent-lijeknik, pacijent-okolina, pacijent-obitelj i obitelj-lijeknik te u odnosu lijeknik-lijeknik. Nova je stvarnost pacijenta život pun boli, život uz terapiju, operacija ili eventualno invaliditet.

5. Dijagnoza na razini makro- i mikrostrukture

U lingvistici stručnih tekstnih vrsta polazi se od toga da govornici nekog jezika i pripadnici određene struke moraju imati sljedeće znanje: intuitivno znanje o stručnim tekstovima korištenim u svakodnevnoj stručnoj komunikaciji, o njihovoj prototipičnoj strukturi (usp. Ivanetić 2003:141), o konvencionalnim situacijskim okolnostima te o njihovu sadržaju, izrazu i grafičkom dizajnu. Dijagnoza izvještava o zdravstvenom stanju neke osobe-pacijenta ili o stanju bolesti tog pacijenta prema redu značajnih događaja (Anić 1994:43), tj. prema redu pojavljivanja značajnih simptoma te bolesti, poboljšanju ili pogoršanju stanja (povijest bolesti) te bolesti. Dijagnoza sadrži podatke o razvoju bolesti ili stanju pacijenta kronološki. Iako se može reći da dijagnoza navodi tijek razvoja stanja ili bolesti kronološki, tu se ne misli na detaljiziran kronološki slijed koji sadrži dan, mjesec ili godinu pojavljivanja promjene stanja ili bolesti, već na uopćenu kronologiju koja se izražava fazama ili razdobljima u kojima su se to stanje ili bolest mijenjali ili pojavljivali. Usprkos tome, međutim, možemo reći da je inherentno obilježje dijagnoze (anamneza + povijest bolesti) vremenska orijentacija prema prošlosti, tj. da su najvažniji komunikacijski parametri oni koji određuju kada, koliko, zašto i zbog kakve se promjene ili simptomatike stanje osobe mijenjalo.

Dijagnozu piše liječnik i ona nastaje kao rezultat liječničkog pregleda nakon spoznaje o promjenama stanja ili razvoja bolesti u pacijenta, a to implicira promjenu ili pokušaj promjene statusa objekta dijagnoze, tj. pacijenta. Time se istovremeno implicira promjena ili pokušaj promjene postupaka i statusa primatelja teksta dijagnoze. Drugi liječnik na temelju dijagnoze prvog liječnika postaje informiran o statusu pacijenta prema kojem se na temelju toga djeluje u daljnjem postupku liječenja, kao što i pacijent postaje svjestan promjene stvarnosti zdrave osobe u bolesnu osobu.

Dijagnoza se dalje šalje nekoj zdravstvenoj instituciji na daljnje postupke dijagnostike i liječenja, pa se time može ubrojiti i u tekstne vrste institucionalne sfere. Dijagnoza spada i u javnu komunikaciju (ako se pacijent šalje na specijalističke dodatne pretrage ili na bolničko liječenje), međutim, ako se pacijent ne šalje na daljnju zdravstvenu obradu, dijagnoza se ubraja u polujavnu komunikaciju.

Namjera je pošiljatelja informirati primatelja o promijenjenomu zdravstvenom stanju i uvjeriti ga da pacijent treba promjenu odnosa, zdravstvenu skrb ili da za bolničko liječenje ili operaciju zadovoljava potrebne stručne uvjete (svrha). Zbog toga se u dijagnozi osobito ističu oni aspekti bolesnog stanja tijela ili organa, koje treba podvrgnuti daljnjoj zdravstvenoj obradi, jer pošiljatelj anticipira primateljeva očekivanja i stavove prema bolesti ili promjeni stanja na osnovi svojih stručnih i enciklopedijskih te iskustvenih znanja o situaciji i stanju bolesti, kao i specifičnih znanja o pacijentu (doprinosi povijest bolesti), npr:

*...17,5 g. djevojka dolazi u pratnji majke na konzilijarni pregled po preporuci liječnika opće prakse (dr. Glavan). Jutros kod ustajanja osjetila jake bolove u trbuhu. Povraćala nije. Imala stolicu na Dulkolax. ZM prije 2 tjedna...*²

Očekivanja pošiljatelja su također eksplicitna i u korpusu anamneze verbaliziraju se jedanput, npr.:

Abdomen mekan difuzno bolan u donjem dijelu. Rektalno bolnost kod pomicanja uterusa. Adneksa se radi bolnosti otežano palpiraju.

Ponavljanje u dijagnozi vodi prema svojevrsnoj ustaljenosti, tj. standardiziranosti, kao što se u prethodnom primjeru ponavljaju leksemi *bolan*, *bolnost*, *radi bolnosti* i sl., a to se u slučaju stručnih tekstova očituje ne samo u kompoziciji nego i u stereotipnome stručnom jezičnom izrazu koji realizira tipičan stil ove tekstne vrste, npr. *abdomen*, *mekan* i *difuzno bolan*, *otežano palpiranje*, *adneksa* itd.

Iako tekstovi komuniciraju i oblikom i dizajnom, dijagnoza je vizualno siromašna dizajnom koji je sveden na funkcionalni i minimalistički. Izbjegavanjem atraktivno-

² Svi primjeri preuzeti su u izvornom obliku.

ga vizualnog dizajna u potpunosti se skreće pozornost na eksplicitni stručni sadržaj koji je u nekim slučajevima od životne važnosti za pacijenta. Znači, u dijagnozi vizualno dizajniranje teksta, potpomognuto kompjutorskom tehnologijom, nije važno sredstvo stvaranja prvog dojma na primatelja. Spoj optike i stilistike ne pridonosi optimalizaciji teksta i njegovoj razumljivosti, kao što je slučaj kod nekih drugih tekstnih vrsta³ u kojima se iz grafičkih oblika mogu iščitati implicitne informacije o pošiljatelju samom (usp. Ivanetić 2003:143) i o njegovim predodžbama o primatelju, a koje se podsvjesno percipiraju dok ih pošiljatelj najčešće ni sam nije svjestan. Zna se da je svaka poruka višedimenzionalna, međutim, ozbiljnost i stručnost dijagnoze ne postiže se modernim oblikom poruke i količinom podataka, nego vješto sročnim formulacijama, pri čemu su kratkoća i informativnost osnovne značajke stručne komunikacije u medicini.

Sadržaj dijagnoze, njezina ekonomičnost i eksplicitnost posljedica su stručnog pojednostavnjivanja teksta. Pritom se teži za brzim pristupom podacima, što pretpostavlja pozicioniranje informacija na uvijek isti način (npr. opisi koji sadrže velik broj latinizama) i na isto mjesto u tekstu. Tako dijagnoza podliježe normiranju, standardizaciji i unifikaciji (usp. Ivanetić 2003:143).

5.1. Jezik dijagnoze na razini mikro- i makrostrukture

Standardizirani tekstovi pokazuju karakteristike ustaljene makrostrukture. Takva makrostruktura ima stereotipne dijelove teksta (početak i kraj) koji služe kao oznaka tekstne vrste.

Početni signali svake dijagnoze su zaglavlje koje daje na znanje na kojem je odjelu u bolnici postavljena dijagnoza, npr. *Klinički bolnički centar Rijeka, Krešimirova 42, 51000 Rijeka, Klinika za ginekologiju i porodništvo, Predstojnik: prof. dr. sc. Herman Haller, dr. med, Tel.: +385 51 65 82 03 itd.*

Iza toga slijedi masno otisnut naslov *NALAZ SPECIJALISTE, Protokol broj: 2012003000*, smješten po sredini teksta.

Završni signal uobičajeno je naslovljen s masno otisnutim *Preporuka/Terapija* iza čega slijedi opis preporuke, npr.: *Primiti u KBC Rijeka te uputiti na Ginekologiju radi hitne laparoskopske operacije.*

Iza toga slijedi formulacija datuma i to tako da je sintagma *Datum izdavanja* masno otisnuta i vizualno smještena u lijevi kut teksta, a iza dana, mjeseca i godine, naveden je i sat pregleda, npr.: *Datum izdavanja: 07.06.2012. 11.33.*

³ Tekstna vrsta u kojoj dizajn pridonosi optimalizaciji teksta i njegovoj boljoj razumljivosti (Hess-Lüttich 1998) jest npr. životopis koji se šalje u prilogu prijave na natječaj za radno mjesto.

Formalni okvir teksta koji je određen početnim i završnim signalima, ispunjen je standardiziranim dijelovima (osim opisa stanja i tijeka bolesti koji je većinom kod svake dijagnoze različit), a to su opći podaci o pacijentu (ime, prezime, datum rođenja i adresa). U tekstu je navedena i šifra dijagnoze, tj. stanja pacijenta pod nazivom Dijagnoza, npr. *Dijagnoza: R10-Boli u trbuhu i zdjelici*, kao i akronim MBOO i njemu pripadajući broj, npr. *MBOO: 159513264*. Tomu je dodan i datum pregleda, npr. *Datum pregleda: 12.11.2011*.

Okvir teksta ispunjen je razlozima postavljanja dijagnoze te opisima stanja pacijenta koji su raščlanjeni sljedećim formulama ili podnaslovima: *Anamneza/Razlog dolaska, Nalaz te Dijagnoza*. Tekstualni sadržaj tih formula razvija temu deskriptivno, podaci se prezentiraju uzročno-posljedično i kronološki. Uzrok i posljedica te vremenski slijed određuju kompoziciju teksta, kao u sljedećim primjerima:

Anamneza/Razlog dolaska: *41 g. žena dolazi na konzilijarni pregled po preporuci ginekologa (dr. Stanković) zbog pojačanog iscjetka iz rodnice. Jutros kod mokrenja prepoznala tragove krvi u mokraći... itd.*

Nalaz: *Lijevo u Douglasu multiokularna cistična tvorba promjera 5,3mm... itd.*

Dijagnoza: *N83.2 Druge i nespecificirane ovarijske ciste... i sl.*

Po logici stvari, dijagnoze izvještavaju o onome što se u sadašnjosti događa i zbog toga se pišu u prezentu. Vremenski slijed se katkad i raščlanjuje dodatnim oznakama koje se odnose na apsolutno, relativno, sadašnje i buduće vrijeme, npr.: *Zadnji pregled 14.8.2012.* (apsolutno vrijeme) ili *Cistične tvorbe se javljaju u periodu ovulacije...* itd. (relativno vrijeme), kao i *R10 Bol u trbuhu i zdjelici* (sadašnje vrijeme) i *Kontrola za tjedan dana radi uvida u PHD nalaz* (buduće vrijeme).

Na leksičkom planu u tekstu dijagnoze javljaju se sintagme iz uvijek istoga semantičkog polja. U primjerima iz korpusa, to su sintagme iz jezika medicine, uža specijalizacija tog jezika struke jest ginekologija, npr. *uterus avf, normalne veličine i teksture, douglasov prostor, multiokularna cistična tvorba* i sl.

Na leksičkom planu evidentna je i učestalost latinizama, što je i jedna od osnovnih karakteristika jezika medicine i medicinske komunikacije, npr.: *Colicae abdomena, corpus luteum, hemoperitonej, cystectomy ovari sin* itd.

Radi olakšavanja i ekonomiziranja stručne komunikacije, u tekstovima dijagnoze koristi se i velik broj kratica i akronima iz jezika struke, npr.: *LPSC op. 55.11.2012., TRS, PHD, nalgesin tab pp, Dg Cystis* isl.

Na sintaktičkoj razini evidentna je uporaba kratkih, katkad i nepotpunih rečenica, nezavisno ili, malo kada, zavisno složenoga tipa. Razlog za uporabu nepotpune sin-

takse može biti dvojak: nedovoljno poznavanje sintakse standardnoga hrvatskog jezika i stavljanje u prvi plan medicinskih sinatgmi koje same po sebi opisuju stanje i bolest pacijenta.

U svim primjerima korpusa sadržajni segmenti ostvaruju se standardizirano, a na makrostrukturnalnoj razini pokazuju sljedeće elemente:

1. Uvodni dio koji sadrži zaglavlje i predmet teksta koji je naslovljen s *NALAZ SPECIJALISTE*, ispod kojega je naveden broj protokola.
2. Središnji dio sadrži opis predmeta teksta. Realizira se putem pet segmenata koji su naslovljeni s *Podaci o pacijentu, Anamneza/Razlog dolaska, Nalaz, Dijagnoza i Preporuka/Terapija*.
3. Završni dio sadrži formulaciju mjesta i vremena nastanka dijagnoze i potpis liječnika specijalista.

Odstupanja od toga makrostrukturnalnog modela u primjerima korpusa nema.

Zaključak

Dijagnozom se mijenja stanje stvari i kreira se nova realnost u odnosu pacijent-liječnik, pacijent-okolina, pacijent-obitelj i obitelj-liječnik te u odnosu liječnik-liječnik. Kod pošiljatelja teksta (liječnika) prisutna je svijest o važnosti primatelja (pacijenta ili drugog liječnika, zdravstvene institucije) kao instancije koja odlučuje o daljnjem postupku prema stanju ili bolesti pacijenta, i zbog toga se komunikacija tekstom dijagnoze u potpunosti prilagođuje primatelju na kognitivnom planu. To znači da se pošiljatelj prilagođuje primatelju kratkoćom teksta, pri čemu se ispunjavaju uvjeti ekonomiziranja vremenom. Korištenjem kratkih formulacija bez pravilne sintakse i izostavljanjem suvišnih detalja te uporabom latinizama omogućeno je zadržavanje pažnje na važnim podacima o pacijentovu stanju ili bolesti.

Tekstna vrsta dijagnoza oblik je stručne komunikacije i jezičnog djelovanja. Konvencionalna je i standardizirana, i to upućuje na norme i stručnost zajednice koja se njome koristi. Iako je reduciran obrazac opisa stanja i bolesti pacijenta, dijagnoza je i strateški obrazac koji pokazuje principe medicinske struke kao što su brzina, efikasnost i efektivnost djelovanja. Dijagnoza je pregledni tekst s ustaljenom makrostrukturom i sredstvo za postizanje ciljeva pošiljatelja koji šalje primatelju direktivnu poruku koja rezultira daljnjim medicinskim postupkom.

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Laboratory manual in teaching medical chemistry in English language course for the student of medicine and dental medicine

ABSTRACT

Chemistry is an experimental science. It is not an inanimate science, but one that help us to understand the behavior of living systems.

This manual was designed especially to follow the lecture portion of the student class.

The laboratory activities include materials that students may be familiar with, such as household products, drinks, and various medicines. In such way, chemical topics are related to the real world and to the student's own science experience. Some of the lab exercises teach basic skills while others encourage students to extend scientific curiosity beyond the lab.

The laboratory class gives an opportunity to go beyond the lectures and words in the textbook and experience the scientific processes from which conclusions and theories concerning chemical behavior are drawn. The concepts of some experiments have health and biological aspects.

Keywords: chemistry, manual, students of medicine, English program, laboratory work

Introduction

Varna Medical University was established in 1961 when the first students began their academic studies in medicine. The structure of Varna Medical University includes Faculty of Medicine, Faculty of Dental Medicine, Faculty of Pharmacy, Faculty of Public Health Protection and Medical College. The academic and research activities carried out at Varna Medical University are provided by modern facilities

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and equipment as well as information technologies corresponding to the modern requirements of academic training standards.

The Department of Chemistry was established in 1962 as a part of the former Institute of Higher Education, now part of Faculty of Pharmacy, Medical University of Varna. Associate Prof. Mona Stancheva has been the head of the Department since 1997. Associate Prof. Mona Stancheva, Associate Prof. L. Makedonski and their associates established a Laboratory of Safety and Quality of Foods, which is equipped with gas chromatography-mass spectrometer, HPLC with different detectors, financed with project of Ministry of Education.

Foreign students from all over the world have been educated at the university for almost 15 years.

A prior to their first academic year students are having a preparatory course of chemistry. The student's course includes theoretical part and practical exercises in the major of general, inorganic and organic chemistry.

The need of an adapted manual

Writing and publishing the Laboratory Manual come as an outcome of our science and teaching work. Obviously the increased number of our students involves the need of ordering, completing and fitting the class lectures on paper. A great deal of learned content remains unutilized as the students fail to determine the connection between the content and their practical applicability in dealing with patient¹.

Traditionally, medical students were taught what were considered to be the science on with medicine was based as separate subjects, reflecting the distinctive identity of the academic departments that undertook the teaching.² We have the idea to combine and integrate topics from other science's disciplines in order to give much more attention to the teaching, and hence the medical students' learning process. To avoid this situation we also adapt the chemical curriculum to the specific interests of the students of medicine and dental medicine including use and application of important for medical and dental medical practice substances and techniques (Table 1).

¹ Zubair Amin, *Basics in Medical Education*, World Scientific, 2003 p.5

² Della Fish, *Medical Education*, McGraw-Hill International, 2005

Table 1. Example 2 of adapting the chemical curriculum to the specific interests of the students of medicine and dental medicine (Testing for cations and anions, p. 30)

Ions	Occurrence	Functional Significance	Source	Result of Too Little	Result of Too Much
Na⁺	Principal cation outside the cell	Regulation and control of body fluids volume	Salt, cheese, pickles	Hyponatremia, anxiety, diarrhea, circulatory failure, decrease in body fluid volume	Hypernatremia, little urine, thirst, edema
K⁺	Principal cation inside the cell	Regulation of body fluids and cellular functions	Bananas, orange juice, milk, prunes, potatoes	Hypokalemia, lethargy, muscle weakness, failure of nerve impulse transmission	Hyperkalemia, irritability, nausea, little urine, cardiac arrest
Ca²⁺	Cation outside the cell; 90 % of calcium in the body as Ca ₃ (PO ₄) ₂ or CaCO ₃	Major component of the skeletal system, bones and teeth, cofactor of blood clotting factors	Milk, yogurt, cheese, greens and spinach	Hypocalcemia, tingling, fingertips, muscle cramps, osteoporosis, rickets (in children), osteomalacia (in adults)	Hypercalcemia, relaxed muscle, kidney stones, deep bone pain, tetany
Mg²⁺	Cation outside the cell; 70 % of Mg ²⁺ in the body in bone structure	A cofactor for enzymes in the body, muscles, and nerve control	Widely distributed (part of chlorophyll of all green plants), nuts, whole grains	Disorientation, hypertension, tremor, slow pulse	Drowsiness
Cu²⁺	Cation carried mostly in the bloodstream	It is found as a cofactor of a variety of enzymes. Also it is used as a component of redox-systems in a mitochondrial electron transport chain	Whole grains, legumes, organ meats, cherries, nuts, dark chocolate	Anemia, skin problems, swollen ankles, hallucinations, depression	Headaches, hypoglycemia, increased heart rate, nausea, copper storage disease (Wilson disease).
Fe²⁺ / Fe³⁺	Intracellular: stored in a form of ferritin; Extracellular: bound to a specific transport protein transferrin.	component of: biologically important redox-systems of respiratory chains; Hemoglobin (Fe ²⁺) binds oxygen forming oxyhemoglobin; ensures oxygen transport to the tissues; enzyme cofactor	Chicken liver, oysters, turkey, tuna	Anemia	Excess of iron in the body (hemochromatosis). Results in damages of the heart, liver, gonads and other organs

Ions	Occurrence	Functional Significance	Source	Result of Too Little	Result of Too Much
Zn²⁺	Cells, muscle	It is an activator of certain enzymes. Responsible for the DNA formation. Key factor in prostate gland function and reproductive organ growth.	Shellfish, beef, egg yolk, pork, whole grains, nuts, oysters, pumpkin seeds	Anorexia, slow wound healing, skin disorders and night blindness.	Nausea, vomiting, diarrhea, weekend immune system
Mn²⁺	Cells	Enzyme activator. A component of metalloenzymes.	Mustard greens, kale, chard, raspberries, pineapple, spinach, garlic	Skeletal abnormalities, nausea, vomiting, high blood sugar levels, skin rash	Neurological disturbances-tremors, difficulty walking and facial spasms

The following problem shows adapting the chemical curriculum to the specific interests of the students of medicine and dental medicine

An intoxicated driver has a 0.2 v/v % alcohol in his blood. How much alcohol contains in the total 6 l blood of this individual. (Solutions. Concentration and its units, p. 22)

Recognizing the difficulties which students experience not only with the chemical concepts but also with the use of specific laboratory English terms, we highlight their attention with plain text, bolding, underlining and illustrating important and tough notions.

The manual is necessary to summarize subject in topics (Table 2) and for organization the laboratory work, so the students have a follow-up plan in their laboratory work.

Table 2. Content of chemical topics 2012/2013

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Teaching Chemistry with tricks

Chemistry is a science of matter, especially its chemical reactions, but also its composition, structure and properties. To be effective science trainers³ we believe and act in these ways:

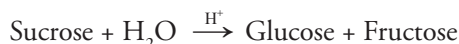
- Respect and accept the unique perceptions of individual learners.
- Reflect on and consider learners' prior knowledge and interests when selecting and using specific teaching strategies and techniques.
- Believe that all students can and will learn.
- Create a challenging, but non-threatening, learning environment.
- Commit to the learning and intellectual growth of all learners.
- View oneself as capable, dependable, and generally positive.
- Believe that one can teach effectively and that effective teaching will lead to positive learning outcomes.

Chemistry operates with lots of formulas which have to be studied. That's why most of the illustrations in the manual are just chemical formulas. Often functional groups or atoms are colored or circled, so the students would pay more attention to them. The formulas and structures take a large space of the pages so chemical symbols could be easily distinguished. Bold arrows and symbols in interactions and chemical equations are remarkable. However figures and illustrations are closed to the corresponding text and the reader can easily make an association.

Students of medicine and dental medicine in the English language program speak English well and even fluently, and all of them are having hard time with expressing and working with specific chemical concepts. The reason for that misunderstanding is that academic chemistry is a new subject for students that involves a lot of new English terms and phrases. This problem is solved by combining new concepts with explanation and formulas/figures/equations.

For example when introducing the term *hydrolysis of disaccharides* both explanation and equation are present:

*Disaccharides **hydrolyze** in the presence of an acid to give the individual monosaccharides:*



(Hydrolysis of disaccharides, p. 219)

³ J. R. Staver, *Teaching science*, p.8

Contrasting color is also advisable.

The next example shows other way of presenting corresponding terms.

*When sucrose is hydrolized , it forms a mixture of glucose and fructose . This **50:50 mixture** of glucose and fructose is called an **invert sugar**.*

(Hydrolysis of Disaccharides and Polysaccharides, p.182)

One of the important directions of the work of our laboratory is *Food quality and Nutritional value of Black Sea Fishes*⁴. We realize the importance of relevance between pure science and real world. That's why most of the experiments and information in the text are related to application and use of substances and processes:

Certain insects, such as honeybees, have enzymes called invertases that catalyze the hydrolysis of sucrose to glucose and fructose. Honey, in fact, is primary a mixture of glucose, fructose, and sucrose.

(Hydrolysis of Disaccharides and Polysaccharides, p.182)

Didactic structure of the manual

Didactic structure of the manual includes theoretic part, lab work part and practice part. Goals and pre-lab questions are discussed at the beginning of each laboratory lesson. Main concepts are next, just before the experimental procedures. Appending questions and problems revise theory and lab work As a whole there are two parts in the manual: first part is General Chemistry and second part is Organic chemistry, totally of 290 pages and is adapted to official accreditation documents⁵. Per academic year 100 hours are in the curriculum of students of medicine and 75 for the students of dental medicine. In a lab class 8-12 students are presented.

There are different ways of managing a laboratory. It depends on the topic, students and equipment. We tried to unify the lab work using these techniques⁶ to promote deep scientific understanding:

- To determine if tasks are problems or exercises for students, ask all students if they have a good-to-excellent idea or little-to-no idea how to do specific tasks.

⁴ <http://lab-varna.bg/index.html>

⁵ www.mu-varna.bg

⁶ J. R. Staver, *Teaching science*, p.12

- Organize cooperative student groups that reflect intellectual, gender, and cultural diversity; have members of the group share and discuss their representations of the gap and proposed solution strategies.
- Use guided-inquiry teaching strategies that lead learners to continue developing and modifying their knowledge.
- Aim problem-solving instruction slightly beyond what students can do alone but within the boundaries of what they can do with assistance from others.
- Use science concepts and processes as contexts for students to write persuasive essays, engage in oral discussions, connect data with scientific theories, and solve problems requiring mathematical reasoning.
- Design discussions and negotiations among students as on-going learning experiences.
- Provide opportunities for students to claim ownership of their learning.

We always start with considering the goals of the topic: identifying functional groups, substances or processes, describing common substances, distinguishing different substances in same group through performing chemical tests, determining chemical properties, setting up the equipment, performing different lab techniques etc. Students have answered at home the pre-lab questions and a control of the answers follows. These questions are related with the present topic and require a revision of old knowledge. (Figure 1)

Report Sheet-Lab 16

Studenta Name Date:.....

Student Group: Instructor signature.....

Pre-lab Study Questions

1. What are some sources of carbohydrates in your diet?
2. What does the D in D-glucose mean?
3. What is the bond that links monosaccharides in di- and polysaccharides?

A. Monosaccharides

A.1. Fisher projections

L-glyceraldehyde

D- glyceraldehyde

Figure 1. Pre-lab Study Questions. Carbohydrates, p. 175

In the topic **Carbohydrates**, for instance, answering pre-lab questions requires revision of structural theory and types of bonding and thinking over the components of your own diet.

A discussion of chemical concepts follows. The text includes tables and formulas for illustrating the information (Figure 2).

A. Disaccharides

The disaccharides contain two of the common monosaccharides. Some common disaccharides include maltose, sucrose (table sugar), cellobiose and lactose (milk sugar).

Disaccharides	Sources	Monosaccharides
Sucrose	Sugar cane, sugar beets	α -glucose + fructose
Maltose	Geminating grains, starch hydrolysis	α -D-glucose + α -D-glucose
Cellobiose	Cotton, jute, paper	β -D-glucose + β -D-glucose
Lactose	Milk, yogurt, ice cream	β -D-galactose + β -D-glucose

Figure 2. Table for illustrating the information about disaccharides, p.171

Disaccharides can be found in common food products or their sources.

Again in the topic **Carbohydrates** the transformation of glucose in ring structure through a hemiacetal bond is presented with a formula, which also shows the difference between α - and β - glucose. Generally composing and writing their formulas bother the students. Pointing the linkage (through different color and number) may assist the oral explanation (Figure 3).

Approximately 1/3 of the time of the laboratory is provided for theoretical questions and problems.

The rest filled in with experiments. An experiment doesn't include only the procedure itself. The consecution in most cases is the following

- Reading the experimental procedures
- Explaining the technique of lab work
- Presenting the necessary laboratory equipment

In this part of the experiment English use (reading, comprehension, oral presentation) and chemical knowledge are needed.

In a disaccharide, two monosaccharides form a glycosidic bond with the loss of water. For example, in maltose, two glucose units are linked by an α -1,4-glycosidic bond. When a specific glycosidic bond (or linkage) between glucose and fructose is made, the result is sucrose.

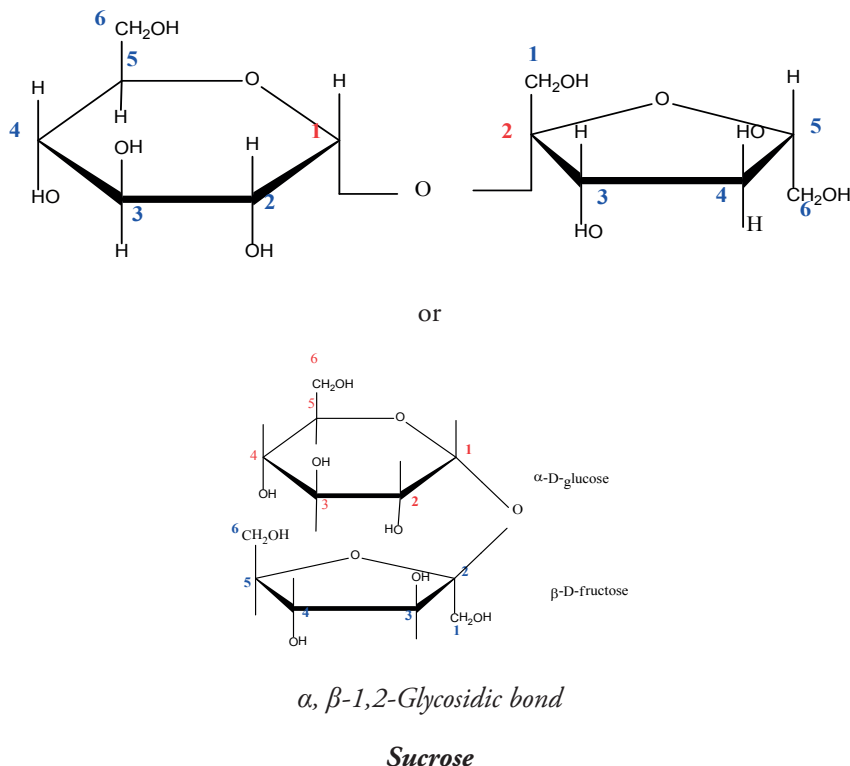


Figure 3. Writing chemical formulas, p. 171, 172

- Performing the experiment
- Observing and finding out the changes in the reactionary set

In the experimental part of each topic of the manual, its authors found a way to design a new laboratory exercise that combines mastering lab skills and improving English knowledge. The manual begins with pictures and application of the most important laboratory equipment that are included in each experimental procedure of the topic.. Students learn how to operate with the laboratory equipment, how to use test tubes, pipettes and water bath. A special attention is devoted to the work with poisonous and mordant substances. Example:

Place 2 cm³ of starch solution in two test tubes and 2 cm³ of sucrose solution in two more test tubes. To one sample each of sucrose and starch, add 20 drops of 10 % HCl. To the other samples of sucrose and starch, add 20 drops of H₂O. Label the test tubes and heat in a boiling water bath for 10 min. .

Hydrolysis of Disaccharides and Polysaccharides, p.183

Organizing the educative process

Often students work in a group of 2-3 persons. By working in groups⁷ you gain experience and understanding about different tasks . The successful completion of a group assignment usually means that you have acquired many very important skills, particularly communication, analytical and interpersonal skills, which are highly valued by employers. The capacity to listen, question, persuade, respect the opinions of others, help, share and participate is of lifelong value. Working with others also allows for assignments to be broken into tasks and the workload to be distributed evenly. By working together, students are able to bounce ideas off each other and learn from each other. Members can contribute different skills and thus the group can achieve more than individual members could on their own.

During the experiment they work together and English speaking is unavoidable because they are different nationalities.

- Recording the results

Frequently because substances have to be compared, students must fill in a table. Here a general conclusion is asked.

- Discussing the results

Because students are learner and not professionals, after the registration of the result, a discussion is desirable. Asking questions and joining in discussions are important skills for university study⁸. Knowing the main strategies of a discussion, wrong results find their explanation.

- Improving and applying the new knowledge;

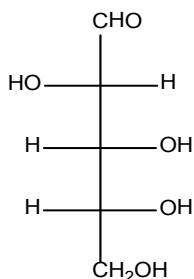
This is performed through answering different questions and solving problems (Figure 4). For example in the topic **Carbohydrates** the application of dextrin in the daily life can be looked up in Internet or encyclopedia.

⁷ <http://deakin.edu.au/current-students/study-support/study-skills/handouts/groups.php>

⁸ <http://www.lc.unsw.edu.au/onlib/disc.html>

Q.11. Where can you find a dextrin in our daily life?

Q.12. Write the oxidation and reduction products of D-arabinose. What is the name of the sugar alcohol produced?



Q.13. Describe the similarities and differences in the following:

- a. amylose and amylopectin
- b. amylopectin and glycogen

Figure 4. Answering different questions and solving problems, p. 186

D-arabinose is not discussed in the text, but its functional group and properties are. So students are supposed to answer this question easily.

Describing the similarities and differences of amylose, amylopectin and glycogen requires generalization and of the text.

Darija Rupčić*, Ivica Kelam

Izgubljeni u prijevodu / Filozofsko poimanje jezika kao odnosa nad odnosom**

SAŽETAK

Heidegger govor poima kao egzistencijalnu strukturu tubitka – čovjeka, odnosno kao egzistencijalni fenomen. Za njega se bit govora, riječi sastoji i pokazuje "kao riječ samog bitka... zato se rađa i oslobađa tako sporo i teško." Govor se otkriva kao okrug (templum), kao *kuća bitka* i "samo se u tom okrugu može postići preokret iz područja predmeta i njihova predstavljanja u ono najunutarnije prostora srca." ("Holzwege", S. 286). Na jednom drugom mjestu Heidegger će reći da je čovjek samo pastir bitka, njegov čuvar, a čuvajući jezik, govor, riječ, on čuva blizinu bitka i smisao i bit čovjества. Slično tome, za Buberu osnovne riječi nisu svaka za sebe, nego parovi riječi, a jedna je osnovna riječ par Ja-Ti.¹ Osnovne riječi Ja-Ti, izgovorene, zasnivaju neko postojanje i izgovaraju se samo čitavim bićem. Za Buberu se *čudo isključive prisutnosti* događa u susretu, u odnosu, kada pojedinačni i izdvojeni Ti stoji sučelice Ja. Tada se događa ljubav, koja je između, koja je susret i prisuće, ljubav koja vidi isključivo i samo cijelo biće, biće u cjelini i samo tada i samo takva ljubav koja je odnos, samo ona tada može pomoći, iscijeliti, podučiti, uzdići, izbaviti. Tada je ta i takva ljubav odgovornost jednog Ja za jedno Ti, u tome se sastoji i jednakost svijui koji vole, od najmanjeg do najvećeg, od najslabijeg do najmoćnijeg, od liječnika do pacijenta, koji je u oslabljenoj poziciji i traži lijepu riječ, a ne samo hladnu dijagnozu. Svjedoci smo na žalost da liječnici, koji i sami svjedoče tijekom svoje prakse, osobito oni koji se susreću s najtežim i neizlječivim bolestima, kako nisu spremni i kako su im najteži trenuci bili upravo oni u kojima su trebali izricati čitavo svoje biće drugome biću, a da to nisu uspijevali na takav način, niti su znali. Tehnologizacija se događa i na jeziku medicine ali i u samim ljudima koji jezikom više ne izriču istinu bitka. Mogli bismo dakle, reći Heideggerovim riječima, da ako je jezik kuća istine bitka, onda bi liječnici trebali biti pastiri – čuvari istine bitka.

Glavne riječi: Bitak, jezik, odnos, egzistencija, komunikacija, liječnik, pacijent, krizne situacije, tehnologija, istina, sloboda.

¹ Martin Buber, *Ja i Ti*, str. 5.

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** Rad je nastao u sklopu 14. Dana bioetike, od 10. – 11. svibnja 2012., na Medicinskom fakultetu Sveučilišta u Rijeci, pod nazivom: *Jezik medicine - od geneze do kulture i etike komunikacije* *The Language of Medicine - from its Genesis to the Culture and Ethics of Communication*

Uvod

*"Tko nikada ništa ne kaže, taj ne može u danom trenutku ni šutjeti.
Samo u istinskom govorenju moguća je prava šutnja."*

(Heidegger, *Bitak i vrijeme*)

Zanimanje filozofa za pitanja jezika oduvijek je postojalo. To je samorazumljivo, jer je filozofija otvorena za cjelinu bitka, kako na području pojmova tako i na području iskustva. Rezultati filozofiranja mogu se zabilježiti samo u jeziku, no i sam čin filozofiranja bitno je ne-odvojiv od jezika.

Tek je u 20. stoljeću - osobito sredinom toga stoljeća – problematika jezika dospjela u samo žarište filozofskog zanimanja. Toj zaokupljenosti jezikom zgodan je izraz dao američki filozof Richard Rorty odabравši za naslov svoje zbirke ogleda o filozofskoj metodi, objavljene 1967. u izdanjima Chicago University Press, *The Linguistic Turn*.

Pitanje je jezika malo pomalo dospjelo u središte filozofije upravo zbog dvostruke krize, to jest zbog krize filozofije i krize jezika. Razočaranje filozofskom tradicijom, ali i nizom pokušaja da se filozofija korjenito transformira (Descartes, engleski empiristi, Kant, Hegel, Husserl – da spomenemo samo neke pokušaje) brojne je moderne filozofe potaklo da filozofiju posve svedu na kritiku jezika, jer su u njegovoj 'nesavršenosti' i – još više u zlorabi (ili navodnoj zlorabi) te nesavršenosti - vidjeli izvor neizlječivih zastranjenja u prevladavajućoj tradiciji zapadne filozofije.

Namjera ovog rada, radi opsežnosti tematike, ovdje nije problematiziranje i tematiziranje filozofije jezika i njenog povijesnog razvoja, koliko promatranje samog fenomena jezika kao odnosa nad odnosima. U radu ćemo tematizirati jezik - govor koji se otkriva kao okrug (templum), kao *kuća bitka* i samo se u tom okrugu može postići preokret iz područja predmeta u ono najunutarnije prostora srca, kako je to često naglašavao Martin Heidegger u svojim radovima.

Također ćemo istaknuti i promatrati jezik pod vidom *kaze*, pod vidom i kao odgovor jednog Ja drugom Ti, kao odgovornost i odgovor na poziv i apel koji nam upućuje onaj Drugi, koji nas zove iz naše anonimnosti u našu vlastitost, koji je *apriorno apriornoga* (Levinas) i mjesto susreta čovjeka s čovjekom.

Egzistencija kao samoizvjesna komunikacija – egzistencija kao sloboda i komunikacija

U tome ćemo smislu naglasiti, kao ključni pojam, i fenomen onoga da jest i da postoji, ali ne kao puko postojanje, nego kao ono što se u mitskom jeziku naziva

"duša", a u filozofskom jeziku "egzistencija". Ona kao bitak stoji nasuprot čitavom bitku svijeta. Taj bitak sam ja sam, ukoliko nisam postao objekt samog sebe. Tu dolazi do proboja svjetskog bitka, a susrećemo ga u graničnim situacijama: smrt, patnja, borba i krivnja; u povijesnoj svijesti; u slobodi i u komunikaciji.

Tako se egzistencija može osvjetljavati vođenjem i idući do granice kod koje ostaje samo praznina, objektiviranjem u psihološkim, logičkim i metafizičkim jezicima, i konačno, izmišljanje specifično općeg. S time se konstituira jezik i sheme egzistencije. Pomoću tih shema se daje opisati egzistencija vlastitim kategorijama: umjesto da se podvrgne pravilima, egzistencijalna stvarnost je potpuno povijesna. Ona je slobodna: biti znači ovdje odlučivati.

Egzistencija nije trajna, nego se iskušava u vremenu. Ona ne poznaje uzajamnu kauzalnost, nego komunikaciju. Objektivnoj mogućnosti kontrastira ovdje mogućnost izbora kao neodlučnost budućnosti, koja je moja egzistencija. Nužnosti objektivnog bitka (Dasein) suprotstavlja se ovdje ispunjeno vrijeme trenutka, a beskrajnom vremenu suprotstavlja se vječna sadašnjost. Egzistencija nije objektivna, mjerljiva, iskustvena, općevaljana.

Egzistencija postoji samo kao samo-izvjesna komunikacija. Jaspers razlikuje više vrsta komunikacija u kojima čovjek egzistira kao biće. Sve imaju svoje granice, a s onu stranu njih nalazi se egzistencijalna komunikacija. To je proces otkrivanja i ostvarivanja samosvojnog ja.

Komunikacija (jezik, govor) je borba u ljubavi, samo što se ovdje ne ide za nadmoćnošću i pobjedom: svaki drugom stavlja sve na raspolaganje. Komunikacija može postati vidljiva čak u gospodarenju i služenju (Hegel), u radosnom ophođenju, u diskusiji, pa i u političkim odnosima ako nisu apsolutizirani. Komunikacija igra važnu ulogu u filozofiji, jer je filozofiranje bez komunikacije nemoguće. Filozofska istina ima svoje vrelo i stvarnost u komunikaciji. Zato i nije moguća neka konačna istina kao filozofski sistem, jer je sistem istine proces nastajanja koji će prestati tek na kraju dana.² Ja nastajem u dodiru sa Ti; postajući Ja, ja govorim Ti. Sav je stvarni život susret.

Sveta i osnovna riječ Ja-Ti ili što nam filozofija govori o jeziku kao odnosu i otkrivanju istine o biću – o Drugome

Za Heideggera, govor se ispostavlja kao egzistencijalna struktura tubitka – čovjeka, odnosno kao egzistencijalni fenomen. Za njega se bit govora, riječi, sastoji i pokazu-

² http://www.cep.ffdi.hr/en/?option=com_content&view=article&id=452:karl-jaspers-1883-1969&catid=11:povijest-filozofije&Itemid=101&lang=hr (10. Travnja, 2012.)

je "kao riječ samog bitka – zgrade raskrivajućeg zakrivanja, zato se rađa i oslobađa tako sporo i teško." ³

Govor se sada otkriva kao okrug (templum), kao *kuća bitka* i "samo se u tom okrugu može postići preokret iz područja predmeta i njihova predstavljanja u ono najunutarnijije prostora srca." ("Holzwege", S. 286). Utoliko je opravdano reći da čovjek ne vlada govorom, govor vlada njime kao dar bitka, *rastiruće-zastiruće zbivanje* ili *Kaza*. Na jednom drugom mjestu Heidegger će reći da je čovjek samo pastir bitka, njegov čuvar, a čuvajući jezik, govor, riječ, on čuva blizinu bitka i smisao i bit čovjества.

U svakom je svom novijem spisu Heidegger govoru pristupao na diferenciran način, ne propuštajući se nikada oštro suprotstaviti suvremenoj tehnologizaciji govora kao puke informacije u metajeziku i metalingvistici (usp. također "Unterwegs zur Sprache", Pfullingen, 1959). ⁴ U njima se sankcionira sva današnja istrošenost i izlizanost govora, i nijedan jezik ne može izmaći toj sudbini, navlastito posredovan mass medijima. U današnje doba jezik je postao ključna roba, njime se manipulira i dezinformira, šire se laži i obmane u takozvanim jezičnim igrama, njime se izvodi dekonstrukcija bitka, a time i smisla. ⁵

Martin Buber napominje kako je čovjekov svijet dvojak, zbog njegovog dvojakog stava, koji je pak dvojak zbog dvojnosti osnovnih riječi koje je čovjek sposoban kazivati. Za Buberu osnovne riječi nisu svaka za sebe, nego parovi riječi, a jedna je osnovna riječ par Ja-Ti. ⁶ Osnovne riječi Ja-Ti, izgovorene, zasnivaju neko postojanje i izgovaraju se samo čitavim bićem. Isto je biti Ja i govoriti Ja. Ne postoji nikakvo Ja po sebi, nego upravo u tom odnosu Ja-Ti.

Život se ljudskog bića ne sastoji jedino iz tijela, osjećaja, iz djelatnosti, opažanja – osjetila. Carstvo Ti ima drugu osnovu. Tamo gdje se kaže Ti nema niti jedne stvari, Ti ne graniči ni sa čim, ali se ono nalazi u odnosu. Za Buberu svijet kao osnovno iskustvo, pripada osnovnoj riječi Ja-Ono, koju sačinjavaju stvari i predmeti, ali osnovna riječ Ja-Ti zasniva svijet odnosa. ⁷

Buber ističe kako postoje tri sfere u kojima se gradi svijet odnosa: život sa prirodom, koji stoji na pragu jezika, život s ljudima, u kojem je odnos izreciv i očevidan, i na kraju život sa duhovnim bićima, u kojem je odnos maglovit i obavijen tajnom, bezglasan ali jezikotvoran. ⁸

³ Martin Heidegger, *Kraj filozofije i zadaća mišljenja. Rasprave i članci*, Naprijed, Zagreb, 1996., str. 29.

⁴ Nav. dj., str. 29., navodi: *Unterwegs zur Sprache*, Pfullingen, 1959.

⁵ Jean-Francois Lyotard, *Postmoderno stanje. Izvještaj o znanju*, Ibis grafika, Zagreb, 2005., str. 73.

⁶ Martin Buber, *Ja i Ti*, Izdavačko preduzeće "Rad", Beograd, 1977., Izvornik Ich und Du, str. 5.

⁷ Nav. dj., str. 6.

⁸ Nav. dj., str. 8.

"U svakoj sferi, zahvaljujući svakoj stvari, što sada uočavamo, pogledom dotičemo skut vječnog Ti, iz svake osluškujemo njegov dah, na način svojstven svakoj sferi u svakom Ti oslovljavamo vječno Ti."⁹

Svaki je odnos uzajamnost. Kada stojim naspram čovjeka kao prema mojemu Ti, govorim mu osnovnu riječ Ja-Ti, on nije stvar, ne sastoji se od stvari, nije neki kvalitet niti kvanititet, on nije iskusiva, opipljiva, labavo povezana nakupina osobina, nego bez susjeda i van spojeva, on je Ti koje ispunjava obzor, ne kao da ničeg drugog nema do njega samog, već sve drugo živi u njegovoj svjetlosti.¹⁰

O čovjeku kojemu kažem Ti na znam ništa empirijski, ne znam kako mu je i što proživljava, ali sam u odnosu prema njemu u svetoj osnovnoj riječi. Iskustvo je udaljenost Ti. Osnovna riječ može biti izgovorena samo cijelim bićem, onaj tko joj se ne preda, ništa od sebe ne smije zadržati. U tom stvarnom odnosu Ja djeluje na Ti i Ti djeluje na Ja. Djelovati znači stvarati, otkrivati je nalaziti, uobličavati je otkrivati. Dok stvaram ja otkrivam. Zahvaljujući milosti susreće me Ti koje ne nalazim traganjem, ali da mu se obraćam osnovnom riječi, to je čin moga bića, moj bitni čin. Taj je odnos izabranog i izabiranje, aktivan i pasivan. Prikupljanje i stapanje u cijelo biće ne može se izvesti preko mene ali se to ne može dogoditi bez mene. Ja nastajem u dodiru sa Ti; postajući Ja, ja govorim Ti. "Sav stvarni život je susret."¹¹

"Svako sredstvo je prepreka. Samo tamo gdje su sva sredstva razorena zbiva se susret."¹² Stvaran je susret stoga, neposredan, a sve se događa između, *Zwischen*. Sve posredno biva zanemarivo i nebitno. Prisutan čas, trenutak, stvarno prisutan i puni trenutak, postoji samo tamo gdje i ukoliko postoji prisutnost, susret, odnos. "Samo time što Ti postaje prisutno, nastaje prisutnost."¹³ Suštine se žive u sadašnjosti, predmetnosti i nekontingentnosti se žive u prošlosti, koja je mirovanje, prekidanje, zastajanje, odupiranje, odsustvo odnosa i prezentnosti.

Za Buber se *čudo isključive prisutnost* događa u susretu, u odnosu, kada pojedinačni i izdvojeni Ti stoji sučelice Ja. Tada se događa ljubav, koja je između, koja je susret i prisuće, ljubav koja je jedno, koja se zbiva, koja je čin, u kojoj boravi čovjek, ljubav koja je kozmičko zračenje ili fluid, ljubav koja vidi isključivo i samo cijelo biće, biće u cjelini i samo tada i samo takva ljubav koja je odnos, samo ona tada može pomoći, iscijeliti, podučiti, uzdići, izbaviti. Tada je ta i takva ljubav odgovornost jednog Ja za jedno Ti, u tome se sastoji i jednakost sviju koji vole, od najmanjeg do najvećeg, od

⁹ Nav. dj., str. 8

¹⁰ Nav. dj., str. 10.

¹¹ Nav. dj., str. 12.

¹² Nav. dj., str. 12.

¹³ Nav. dj., str. 13.

najslabijeg do najmoćnijeg. Tako povezani nedokučivom vezom živimo *u struji univerzalne recipročnosti* i djelujemo jedni na druge. Samo tada čovjek postaje Ja u dodiru sa Ti.

Heideggerovo vrijeme zaborava bitka i istine.

Ovdje valja istaknuti kako su pozitivne znanosti, kako ih sam Heidegger naziva, ontičkim znanostima ili znanostima o biću kao takvom, u posljednje vrijeme izgubile iz vida smisao bića i samo biće u cjelini, što je za posljedicu imalo i gubitak smisla uopće, a sve se to odigravalo i ocrtavalo i u jeziku tj. načinu komuniciranja.

Za Heideggera mi živimo u vremenu zaborava bitka i vremenu izostanka odnosa bitka spram čovjekove biti, a taj izostanak bitka sve isključivije prepušta čovjeka samo biću, tako da čovjek biva gotovo napušten od tog odnosa i od bitka samog spram svoje biti, gubi iz vida svoju bit, svoju istinu, svoj smisao, a to ujedno postaje i prijetnja. Za Heideggera to se napuštanje ali i pronalaženje biti, smisla i istine, na kraju opstanka čovjeka uopće, događa u govoru, u jeziku.¹⁴

U doba tehnike i sve više rastuće planetarne tehnologije, mi živimo u vremenu u kojem nemamo Istine, nema više velikih priča, velikih junaka, nema više "svetih kapa", sigurnosti, temelja, topline i nema više zavičaja.

U objektivnom postavljanju čovjekove subjektivnosti kao *res cogitans* (Descartes), u planirajućem napadu cjeline *res extensae* (Descartes) – objektivne i proizvedene zbilje, u prodoru tehnologije, perspektive i kombinatorike, u prodoru volje za znanjem i moći, voljom za gospodarenjem, leže korijeni te *bezzavičajnosti* (Heidegger), beztemeljnosti i beskorijenske epohe koja pokušava dovršiti sudbinu tehnike i svjetskog nihilizma. Nema više nikakvog smisla bitka, bitak postaje lutajuće-putujuće postojanje, i sve što jest postaje predmetom planske, planetarne tehnike koja snažno zahvaća u tu prazninu. Tako se događa uništenje istine bitka nastajućeg bića u cjelini.¹⁵

Tehnologizacija se događa i na jeziku medicine ali i u samim ljudima koji jezikom više ne izriču istinu bitka.

Možda će, tko zna, čovječanstvo na tome propasti i tu stoji i pada čitavo čovječanstvo i humanizam. Čitav ovaj kontekst može nam poslužiti kao zorna slika onoga što se događa s čovječanstvom u cjelini ali i sa svakim pojedinačnim ljudskim bićem koje tako gubi svoje dostojanstvo i vrijednost, a s njime i humanizam gubi svoj smisao.

¹⁴ Martin Heidegger, *Kraj filozofije i zadaća mišljenja. Rasprave i članci*, str. 89.

¹⁵ Kostas Axelos, *Uvod u buduće mišljenje. O Marxu i Heideggeru. Na putu k planetarnom mišljenju*, Stvarnost, Zagreb, 1966., str. 74 – 75.

Mit o ugovoru ili mit o skrbi

Etika skrbi zaslužuje punu pažnju zbog koncepcijski mogućnosti da drugačije zasnije i personalizira terapijski odnos, koji je tehniziran i sveden na relaciju liječnik-bolest. Kako objašnjavamo odnose između bolesnog, izrabljenog i ranjenog čovjeka, s jedne strane, i liječnika, s druge strane, te kako opravdavamo moralna očekivanja koja se pojavljuju u tim odnosima – to su pitanja od najveće važnosti u današnjem svijetu, kako ističe Warren Thomas Reich u svome članku "Mit o ugovoru ili mit o skrbi".¹⁶

Paradigma koja je do sada prevladavala u odnosima liječnik-pacijent, paradigma je koja koristi ugovorno-libertarijanski pristup, a koja je previše individualistička i legalistička te je zasnovana na neprimjerenom temelju. U zamjenu za tu paradigmu trebalo bi nastojati oko prevlasti paradigme zasnovane na iskustvu i konceptu skrbi koji se ističe i u spomenutoj etici skrbi.

Središnja je karakteristika skrbi čin pozornosti. Skrbiti se i brinuti za druge, znači pažljivo gledati na njegove potrebe. Tako je bitna kakvoća etike skrbi u odnosu liječnik-pacijent to da se ona zalaže za novo nastojanje brižljive pozornosti prema glasovima koji se još nisu čuli i prema iskustvima na koja još nije odgovoreno. Ta pozornost i skrb može dovesti do moralne revolucije u spomenutom odnosu.¹⁷

Model skrbi kao rješenje - skrb kao istina bitka i njegovo samoostvarenje

Govoriti o odnosu i komunikaciji liječnik-pacijent znači govoriti o iskazu istine koja se izriče u jeziku i posredstvom jezika. Govor je jedna od egzistencijalnih struktura čovjeka – tu-bitka, kao i razumljenje i čuvstvovanje, a svi oni karakteriziraju kao egzistencijali izvornu dokučenost bitka-u-svijetu.¹⁸ Tu-bitak – čovjek – kao razumljenje koje je jedan modus govora, projektira sebe i svoj bitak prema vlastitim mogućnostima i prema svojem pravom Moći-biti-cijelim. Projektiranje svojstveno razumljenju ima vlastitu mogućnost da se oblikuje i da bira između ponuđenih mogućnosti. Oblikovanje razumljenja nazivamo izlaganje. U njemu razumljenje prisvaja sebi svoje razumljeno. U izlaganju razumljenje postaje ono samo.¹⁹ Tako si čovjek

¹⁶ Warren Thomas Reich, "Mit o ugovoru ili mit o skrbi? Narativna podrijetla bioetike", u: *Društvena istraživanja*, godina 5 (1996.), br. 3 – 4 (23 – 24), Zagreb, str. 559.

¹⁷ Nav. dj., str. 568.

¹⁸ Martin Heidegger, *Bitak i vrijeme*, Naprijed, Zagreb, 1988., str. 168.

¹⁹ Nav. dj., str. 169.

pribavlja tj. dolazi do smisla i biti koja je temelj unutarnje mogućnosti čovjeka. "Smisao jest ono u čemu boravi razumljivost nečega."²⁰ Govor jest artikulacija razumljivosti, a ono što se u izlaganju, izvornije u govoru – jeziku, može izartikulirati, je smisao. Govor je konstitutivan za egzistenciju čovjeka. Govorom se on izriče i sebe čini dostupnim, razumljivim. Isto se tako u govoru saopćuje onom Drugome – onom *Ti*, tu ga susreće, spoznaje, otkriva i po tom susretu on otkriva i samog sebe kao *Ja* (Buber, *Ich und Du*, 1977).

Govorenje i slušanje temelje se u razumljenju. "Samo tko već razumije, može nešto slušati. Isti egzistencijalni temelj ima jedna druga bitna mogućnost govorenja, *šutnja*... Tko nikada ništa ne kaže, taj ne može u danom trenutku ni šutjeti. Samo u istinskom govorenju moguća je prava šutnja. Da bi mogao šutjeti, tubitak mora imati nešto da kaže, to jest raspolagati pravom i bogatom dokučenošću sama sebe. Tada šutljivost čini nešto očitim i pobjeđuje 'naklapanje'."²¹

Ako se u govoru, u jeziku, u riječi izriče istina bitka, ako je istina istovjećenje – podudaranje stvari sa spoznajom – intelektom, odnosno ako je istina slaganje mišljenoga u intelektu i u iskazu sa stvari u stvarnosti, onda treba odrediti što je bit istine i tog istovjećenja, slaganja i odnošenja kao odnosa. To je odnošenje otvoreno prema biću. Svaki je otvoreni odnos odnošenje.²² "Ako ispravnost (istinitost) nekog iskaza postaje mogućom samo putem te otvorenosti odnošenja, onda mora ono što tek omogućuje ispravnost, sa izvornijim pravom važiti kao bit istine."²³ Istina izvorno ne potječe od stava. Ali zašto to slaganje s biti određuje istinu? Sebe osloboditi za obvezujući pravac, moguće je samo kao biti slobodnim prema onome očitome nekog otvorenog. Otvorenost odnošenja kao unutarnje omogućavanje ispravnosti temelji se u slobodi. **Bit je istine sloboda.**²⁴ Istina oslobađa. Bit je temelj nutarnje mogućnosti nečega, dakle je sloboda temelj unutarnje mogućnosti istine. Sloboda je sloboda za ono nešto očito nečega otvorenoga. Ono očito uvijek je neko otvoreno biće. Tako sloboda pušta da biće bude biće, da jest – puštanje bića da bude, da bude on sam, svoj. To znači *sebeupuštanje u biće* (Heidegger, 1996). Znači upustiti se u ono otvoreno i njegovu otvorenost, u kojoj svatko stoji, a koju sa sobom nosi. To otvoreno je ono neskriveno, otkriveno, a to je istina. Grčka riječ *ἀλήθεια* znači upravo to. Pustiti da što bude, tj. sloboda je u sebi iz-stojeća, ek-sistentna – iz-stajanje u otkrivenosti – istini bića kao takvog. Sloboda je dakle, ek-sistentni, otkrivajući tu-

²⁰ Nav. dj., str. 172.

²¹ Nav. dj., str. 187.

²² Martin Heidegger, *Kraj filozofije i zadaća mišljenja*, str. 131 – 135.

²³ Nav. dj., str. 135.

²⁴ Nav. dj., str. 135.

bitak. Jedino sloboda jamči čovječanstvu odnos prema biću u cjelini kao takvom. I tada je ona istina kao otkrivanje bića.²⁵

Upravo u plitkosti i površnosti sveznanja i samoznanja postaje površnom očitost bića u tome prividnome ništa uopće više ne indiferentnoga, nego samo još zaboravljenoga. Tako biće postaje neuhvatljivo, opskurno, neizračunljivo, daleko, neshvatljivo, skriveno i tada se nađemo usred tajne i skrivenosti, usred prave ne-biti istine tj. ne-istine.²⁶ Ali čak ni tada ta ne-bit nije nebitna nego na svoj način biti bitna i ne postaje nikada indiferentna.

Govor je kuća bitka, u njegovu okučavanju stanuje čovjek kao pastir tog bitka (Heidegger, 1996), ako se u jeziku iskazuje čovjek i njegova istina, i ako razmotrimo sve do sad rečeno o govoru, o slobodi i istini, tad moramo vidjeti da govor sve više potpada pod diktaturu prosječnog, bezličnog Heideggerovog *Se* ili pod diktaturu javnosti, čopora koja unaprijed odlučuje o tome što je razumljivo, a što se mora odbaciti kao nerezumljivo.

Tako se danas, više nego ikada, događa pustošenje govora koje troši ne samo estetičku nego i moralnu odgovornost u svojoj upotrebi govora. To pustošenje dolazi od ugrožavanja biti čovjeka ali isto tako vodi ugrožavanju iste.

Briga za integritet ljudske ličnosti ili ontološka povezanost komunikacije i egzistencije kao ko-egzistencija

Jaspers naglašava brigu za integritet ljudske ličnosti. Temelj Jaspersove filozofije egzistencije zasniva se na pet pitanja po uzoru na Kanta. Što je komunikacija, što je čovjek, što je znanost, što je istina i što je trascendencija.

Jaspers govori o zajedničkoj duhovnoj situaciji, koja je zapravo univerzalna komunikacija. Ne postoji jedna jedina situacija za sve ljude. Moje je mjesto u svijetu određeno koordinatama. Samobitak se osvješčuje drugim samobitkom tj. kroz, u i po odnosu.²⁷

Jaspers u tom smislu, govoreći o komunikaciji, ističe da valja razlikovati jezik od *znaka*. To razlikovanje za sobom povlači i razlikovanje filozofske od formalne logike. Formalna logika rabi jezik znakova, a filozofska logika koristi puninu jezika *riječi*. Jezik je dakle po Jaspersu bitno 'nad-znakovan', a komunikacija nije tek razmjena izričaja i priopćenja nego je *ontološki povezana s egzistencijom*, koja je uvijek *ko-egzi-*

²⁵ Nav. dj., str. 138.

²⁶ Nav. dj., str. 142.

²⁷ Karl Jaspers, *Duhovna situacija vremena*, Matica hrvatska, Zagreb 1998., str. 23. – 29.

stencija. U jeziku se očituje i razvija mnogostrukost ljudske egzistencije. Jaspers naglašava da jezičnu moć moramo razlikovati od povijesno-pojedinačnih jezika, a i od individualnoga govora. Pojedinačni jezici upućeni su na jezikoslovlje, a individualni govor na psihologiju. Jezik pak u svojoj općenitosti predstavlja "neistraživu zagonetku ljudskog bića" (*unerforschbares Rätsel des Menschseins*).

Dubina problema jezika po Jaspersu se nazire u tomu što se on ne može svoditi na empirijski objektivitet: jezik je *granica* našeg horizonta, iz njega – kao ni iz povijesti – nikako ne možemo izaći. Zato jezik ne možemo ni *de-finirati*, ali mu možemo temeljne fenomene karakterizirati opisom, s pomoću značenja. U tom kontekstu Jaspersu je ključni pojam *Spaltung* (rascjep, pukotina). Naime, sve dotle dok je 'ja' jedno sa svijetom, ono ne može doći do svijesti. Paradoksalno je da se jezik zbiva nesvjesno i bez namjere, ali je ujedno uvjet temeljnog odnosa prema bitku i svijesti. Tek po jeziku svijest dolazi do jasnoće. Za Jaspersa je pitanje jezika bitan temelj za pitanje *istine*.²⁸

Jaspers, opisujući duhovnu situaciju vremena, govori kako volja za radom proizlazi iz suglasja samoga ljudskoga bitka s djelatnošću u koju on ulaže samoga sebe jer je riječ o cjelini. Volja se razara kada se cjelina podijeli na djelomične učinke, za provedbe kojih nije potrebno ništa osim zamjenjivih funkcija, a što se događa u sadašnjoj situaciji. Ideje profesija (npr. liječnička) odumiru, i stvaraju se planovi, organizacije... više ne liječi liječnik pacijenta, već sklonost novim postupcima ide usporedno s organizacijskom voljom tehnički nastrojenih ljudi, mase, koji s lažnom patetikom tvrde da donose spas zdravlja.

"Primjeri drugih zvanja pokazali su posvud analognu ugroženost njihove biti... odatle proizlazi duboko nezadovoljstvo svojih mogućnosti lišenog pojedinca, liječnika i bolesnika... unatoč intenzivnom radu koji ponekad nadilazi sve snage, više nema svijesti o istinskom ispunjenju. Ono što postoji samo kao osobno sve se neumornije pretvara u pogon, ne bi li kolektivističkim sredstvima bio postignut neki zamagljen cilj... ideje profesija odumiru. Zadržavaju se partikularne svrhe, planovi i organizacija."²⁹

Nijedna znanost koja proučava čovjeka nikada ga nije u stanju u potpunosti zahvatiti; ukoliko smatra da posjeduje "potpunu spoznaju o čovjeku kao cjelini", upravo

²⁸ Karla Jaspers, *Filozofska vjera*, Naklada Breza, Zagreb, 2011., str. 33.

Izvornik: *Philosophische Glaube*, R. Piper & Co. Verlag, München, 1963., str. 33.

Prvo izdanje Jaspersovog spisa *Der philosophische Glaube* izašlo je 1948. godine. Taj programatski spis zapravo je zbir od šest "gostujućih predavanja" koja je Karl Jaspers godinu dana ranije održao na poziv Slobodnog akademskog zavoda i Filozofsko-povijesnog fakulteta Sveučilišta u Baselu. i Josip Oslić – Danijel Tolvajčić, "Odnos "filozofijskog vjerovanja" i objavljene religije kod Karla Jaspersa", u: *Bogoslovka smotra* Vol. 77 No. 3, Prosinac 2007., str. 607.

²⁹ Karl Jaspers, *Duhovna situacija vremena*, str. 66.

promašuje samu bit čovjeka, njegovu "čovječnost" (Menschlichkeit) koja je "sloboda i bogoodnošajnost".³⁰

Čovjek mora ostati slobodan, otvoren za bezgraničnu komunikaciju. Ta komunikacija proizlazi iz zahtjeva *uma* koji je i sam "totalna volja za komunikaciju." Upravo je um veza svih načina Obuhvatnog u nama, koje ne dopušta da se nijedno biće potpuno ne odvoji, odnosno da u rasutosti postane ništavo. "Totalna volja za komunikacijom" proizlazi iz *nezadovoljstva* necjelovitom komunikacijom. Samo je potpuna komunikacija istinita i donosi pomake.

Egzistencija je nužno upućenost na drugoga jer egzistencije nema bez *komunikacije*. Egzistenciju Jaspers razumijeva kao slobodu, a nje nema bez istinske komunikacije, bez komunikacije ostaje samo *ništa o* kojem tako često govori Jaspers.

"Nezaključenost svijeta i neuspjeh svake zaključene slike svijeta, bankrot planiranja u svijetu, čovjekovih projekata i ozbiljavanja, nedovršivost samog bitka čovjeka – sve to svugdje vodi do granice: pred bezdanom se iskušava ništa ili Bog."³¹

Nezadovoljstvo komunikacijom s opstankom nagoni nas na dublju i istinitiju komunikaciju, koja nas upućuje na drugoga, ali i na posljednju, *apsolutnu mogućnost komuniciranja* – na transcendenciju.³²

Komunikacija koja se ovdje očituje, uvijek je *borbena*, ali to je *borba iz ljubavi*, koja uvažava svakoga i ne nameće samu sebe. Jaspersova se misao tu pokazuje kao istinska filozofija radikalne otvorenosti, koja je "netolerantna jedino prema netoleranciji samoj".³³

Stoga je i filozofijsku vjeru moguće odrediti i kao *vjeru u radikalnu komunikaciju* koja se ozbiljuje kao potraga za egzistencijalnim istinama, jer "istina je ono što nas povezuje i istina ima svoj izvor u komunikaciji."³⁴

Mogli bismo dakle, reći Heideggerovim riječima, da ako je jezik kuća istine bitka, onda bi liječnici trebali biti pastiri – čuvari istine bitka. Zato našu pažnju ovdje i zaokuplja napose odnos i komunikacija liječnik – bolesnik i pokušat ćemo u kratkim crtama navesti i dijagnosticirati stanje koje je dovelo do promjena u odnosu liječnik-bolesnik potkrjepljujući nekim primjerima iz prakse kako bismo istaknuli vrijednost i važnost jezika kao odnosa nad odnosima što je i namjera ovoga rada.

³⁰ Karl Jaspers, *Filozofija egzistencije. Uvod u filozofiju*, str. 64.

³¹ Karl Jaspers, *Philosophische Glaube*, str. 34.

³² Danijel Tolvajčić, "Filozofijska vjera Karla Jaspersa", u: *Crkva u svijetu 44* (2009), br. 3, str. 369.

³³ Karl Jaspers, *Philosophy 3 Volume Set (Volumes 1, 2 & 3)*, University of Chicago Press, 1969., ovdje *Philosophy* vol. 1, str. 26.

³⁴ Karl Jaspers, *Philosophische Glaube*, str. 46.

Pustošenje govora u medicini i odnosu liječnik -bolesnik

Elementarni odnos liječnika i pacijenta je asimetričan. Zato se čini da je tradicionalni paternalistički odnos prema pacijentu jedini ispravan. Međutim taj je odnos dio jednoga složenijega međuljudskog odnosa koji implicira potpunu pravnu i etičku jednakost. Iz toga proizlaze i dva druga odnosa liječnika i pacijenta, ugovorni, koji odgovara pravnom odnosu, i partnerski, koji pretpostavlja etičku autonomiju. Čini se da promicanjem partnerskog odnosa u kojemu liječnik i pacijent zajednički odlučuju proizlazi jedan paradoks, naime da se liječnik odriče svoje kompetencije. To može uzrokovati nesigurnost u liječnikovoj profesionalnoj svijesti, ali ozbiljnije je pitanje ugrožava li to liječnikov autoritet.

Medicina primjenjuje (najčešće statistički provjerene) znanstvene spoznaje koje su kao takve vrijednosno neutralne. Zato se liječnik u svojem elementarnom odnosu prema pacijentu treba privremeno suzdržati od vrijednosnoga suda da bi mogao što više promicati partnerski model koji liječnikovu djelovanju daje potpuniji moralni karakter. Na promjenu paradigme od paternalističkoga prema partnerskome modelu utjecale su globalne tehničko-ekonomske promjene u suvremenoj medicini i rastući pluralizam vrijednosnih sustava. No bitni razlog za promicanje partnerskoga modela je respektiranje autonomije pacijenta i njezino uključivanje u proces liječenja.³⁵

Utjecaj suvremenih promjena na odnos liječnika i pacijenta

Dvije velike, globalne promjene utjecale su na klasični odnos liječnika i pacijenta. To su tehničko-ekonomske promjene u suvremenoj medicini i pluralizam

vrijednosnih sustava. Objasniti ćemo ukratko svaku promjenu i okolnosti koju su dovele do tih promjena klasičnog odnosa pacijent – liječnik.

Tehničko-ekonomske promjene u suvremenoj medicini

Vrlo su dojmivi uspjesi suvremene medicine u gotovo svim područjima. Nove mogućnosti utvrđivanja i liječenja bolesti omogućene su razvojem novih tehnologija i bile su donedavno nezamislive. Inače tehnika kao takva nije ni nehumana ni humana. Međutim, njezina neutralnost implicira osebujnu vlastitu zakonomjernost koja nažalost pridonosi izvjesnoj anonimnosti medicine, što će biti objašnjeno u daljnjem razlaganju.

Tako dijagnostika sve manje može bez uporabe kompjutera i popratnih programa. Isto tako sve veća ovisnost o razvijenoj tehnici vidljiva je u području terapije. Porast

³⁵ Josip Talanga, "Odnos liječnik i pacijent prema medicinskoj etici", u: *Bogoslovska smotra*, Vol. 76 No. 1, 2006., str. 47.

specijalizacije ima neke dalekosežne posljedice kako za liječnika tako i za pacijenta. Često se nazire gubitak neposrednog i cjelovitog liječničkog autoriteta zbog podijeljenosti kompetencije na sve više autonomnijih autoriteta. Odgovornost postaje manje direktna, a sve više indirektna. Iako tu odgovornost preuzima više osoba, što je korisno u slučaju specijalističkih dijagnoza, ipak je to ujedno raspodijeljena odgovornost koja upravo zbog te raspodijeljenosti može oslabiti i postati anonimna.

Svjedoci smo na žalost da liječnici, koji i sami svjedoče, tijekom svoje prakse, osobito oni koji se susreću s najtežim i neizlječivim bolestima, kako nisu spremni i kako su im najteži trenuci bili upravo oni u kojima su trebali izricati čitavo svoje biće drugome biću, a da to nisu uspijevali na takav način, niti su znali.

U isto vrijeme pacijent može doživjeti otežano stjecanje cjelovite obaviještenosti o svojem zdravstvenom stanju upravo zbog nedostatka ili umanjenoga kontakta s liječnikom njegova potpunog povjerenja. Pacijent postaje nesiguran i sumnjičav u pogledu jasnog uvida u svoje stanje.

S tehničkim napretkom u medicini s jedne strane i proširenjem zdravstvenog osiguranja na sve društvene slojeve s druge strane povezani su sve veći troškovi održavanja učinkovitoga sustava zdravstvene skrbi. Limitiranje osnovnih sredstava te povećana ekonomska odgovornost medicinskih stručnjaka nameću odnosu liječnika i pacijenta model ugovora. Tako se liječnik osigurava od proizvoljnoga tumačenja svoje odgovornosti, a pacijent postaje svjestan granica usluge koju dobiva ugovorom.

Pluralizam vrijednosnih sustava

Jedna druga skupina pojava – pluralizam vrijednosnih sustava – također je utjecala na promjenu recepcije suvremene medicine. Živimo u sve otvorenijim društvima, politički i etički liberalizam (neoliberalna koncepcija života, rada i vrijednosnog sustava) postaju sve dominantniji. Sve se više zagovara pluralizam ne samo mišljenja nego i temeljnih vrijednosti.

Koja od tih pojava najviše utječe na odnos liječnika i pacijenta? Svakako zahtjev za moralnom, političkom i svjetonazorskom autonomijom svakoga građanina. U odnosu liječnika i pacijenta taj je zahtjev izražen u idealu prosvijećenoga i obaviještenoga odnosno odgovornoga pacijenta te se veže uz odbacivanje paternalizma u medicini. Odgovorni pacijent mora u određenoj mjeri sudjelovati u donošenju bitnih odluka. Činjenica pluralizma u suvremenom građanskom društvu također pridonosi

si sve većem prelaženju na partnersku paradigmu odnosa liječnik-pacijent i promjene paradigme u suvremenoj medicinskoj praksi.³⁶

Činjenica je da se u suvremenoj medicinskoj praksi događa prijelaz od klasičnoga paternalističkog modela prema partnerskom. Za liječnika postaje podjednako važno kakva je krvna slika pacijenta, dakle njegovo zdravstveno stanje, i kakva je njegova vrijednosna slika, dakle kakve nazore zastupa o životu i svijetu u kojemu živi. Možemo reći da doživljavamo promjenu osnovne paradigme. Međutim, pogrešno je tvrditi kako to ujedno znači da klasični hipokratski model treba nestati. On ostaje elementaran u smislu elementarnog odnosa i bezuvjetno imperativan u određenim situacijama. Uspostavljanje nove paradigme znači transformaciju elementarnog odnosa prema uvjetima i zahtjevima koje nalaže samo stanje pacijenta– uz ne samo dobru volju, nego i bezuvjetni zahtjev, da se što je više moguće realizira partnerski odnos. U svakodnevnoj praksi to znači postojanje mješovitih i kombiniranih modela te, ovisno o danostima, prelazak s jednoga na drugi model.

Svakako se treba suzdržati od apriornog vrednovanja i vrijednosnoga suprotstavljanja pojedinih modela jer svaki od njih ima svoj smisao i vrijednost. No ipak možemo reći da promjena paradigme znači imperativ kako za liječnika tako i za zdravstveno osviještenoga pacijenta da se promiče partnerski model.³⁷

Neka iskustva iz prakse

Nastojeći istaknuti globalne promjene koje su utjecale i na promjenu jezika, pustošenje govora, a i time pustošenje smisla, bića, cjeline, fragmentizaciju znanja, o kojoj je govorio Jaspers, a što smo ranije i mi istaknuli, nadalje, naglašavajući promjene u medicini kao jednoj od ontičkih znanosti (Heidegger), nastojali smo istaknuti kako je sve to utjecalo i na promjenu paradigme u odnosu liječnik-pacijent, te ćemo ovdje navesti neka iskustva u komunikaciji liječnik-pacijent, s posebnim naglaskom na komunikaciju liječnik-bolesno dijete i dati jedan osvrt u mogućnosti pronalaženja putova i pomoći u poboljšanju pristupa liječnika bolesnoj djeci.

Po mnogim ocjenama, liječnici dječjih onkoloških odjela preopterećeni su, rade iznad normalnih ljudskih mogućnosti i kapaciteta, ali ih to ne bi smjelo amnestirati od odgovornosti za način na koji se ophode s malim pacijentima i njihovim roditeljima.

³⁶ Josip Talanga, "Odnos liječnik i pacijent prema medicinskog etici", u: *Bogoslovska smotra*, Vol. 76 No. 1, 2006., str. 53 – 54.

³⁷ Nav. dj., str. 58.

Problem je u tome što liječnici koji rade jedan od najzahtjevnijih poslova koji ih svakodnevno duboko traumatizira, iako na studiju medicine prolaze mnoge kolegije posvećene komunikaciji u kriznim situacijama i s pacijentima, ta komunikacija najčešće ovisi o osobnosti liječnika, i o tome je li tog dana pod izuzetnim stresom. Nastojanja da se liječnike educira o tome po iskustvima roditelja spora su i nedovoljna

Najvažniji je zadatak psiho-onkologa omogućiti bolesnoj djeci i roditeljima što veću kvalitetu života tijekom i nakon liječenja, ističe psihologinja Benko, koja je autor Programa razvoja pedijatrijskih neuro-psihologijskih rehabilitacijskih centara pod pokroviteljstvom Zaklade "Hrvatska za djecu". Pri KBC Sestara milosrdnica, gdje ovaj centar djeluje. Prema istraživanjima, pedijatrijska onkologija je najstresnije zanimanje na svijetu.

Slične traume prilikom liječenja svoje djece prolaze i druge obitelji koje se suoče s onkološkom bolešću djeteta. U Udruzi roditelja "Hrabro dijete" smatraju da je odnos liječnika i drugog osoblja prema oboljeloj djeci i roditeljima prije svega uvjetovan lošim uvjetima liječenja, što frustrira medicinsko osoblje i umanjuje kvalitetu odnosa s pacijentima kakvu bi im u boljim okolnostima mogli pružiti.

U našem zdravstvu protokol postupanja prema oboljeloj djeci i roditeljima postoji. Protokol priopćavanja loših vijesti sastoji se od šest koraka. Prvo, liječnik treba osigurati privatnost i neometanje tijekom razgovora, omogućiti prisutnost bliske osobe, te raditi na kvaliteti odnosa s pacijentom i njegovom obitelji. Zatim, treba istražiti koliko roditelji razumiju nalaze, što za njih znači ova dijagnoza, imaju li nerealistična očekivanja te na obazriv način korigirati takva očekivanja. Najteže informacije o prognozi izlječenja treba dati tek onda kad roditelji iskažu spremnost da čuju tu vrstu informacija, a ako roditelj na to nije spreman, treba je priopćiti naknadno – tumači **Marta Benko**, specijalistica kliničke psihologije Neuro-psihologijskog rehabilitacijskog centra u Klinici za dječje bolesti Zagreb. Osim toga, kaže, važno je da se roditeljima na razumljiv način objasne medicinski pojmovi, da liječnik pri tome bude obziran, dozira informacije i pokaže suosjećanje.³⁸

Liječnici i medicinske sestre u Klinici za dječje bolesti KBC-a "Sestre milosrdnice" edukaciji pristupaju vrlo ozbiljno, tvrdi Benko. Kroz cijelu godinu oni slušaju stručna predavanja dvaput tjedno, a postoje i posebni timovi za edukaciju o palijativnoj skrbi, humanizaciji liječenja djece u zdravstvu. Prošle je godine tim Zavoda za dječju onkologiju i hematologiju sudjelovao na seminaru "Kako roditelju reći neželjenu vijest?", a ove je godine provedena posebna edukacija liječnika o priopćavanju loših vijesti.

³⁸ www.novolist.hr, 5. siječnja 2012.

U prosjeku, svaki liječnik Zavoda za onkologiju i hematologiju priopćava loše vijesti pet do deset puta mjesečno. Istraživanje provedeno u Klaićevoj pokazalo je da je većini liječnika najteže razgovarati o recidivu bolesti s roditeljima, o odlukama vezanim uz kraj života djeteta, te o širenju bolesti. Svoju sposobnost priopćavanja loših vijesti liječnici ocjenjuju dobrom (ocjena 3 na skali od 1 do 5). Prilikom priopćavanja loših vijesti, većini je najteže biti iskren, a da pri tom roditeljima ne oduzmu nadu. Rijetki su liječnici koji su prošli edukaciju tehnika nošenja s emocijama pacijenata i njihove rodbine, a većina liječnika procjenjuje da se ne nose najbolje s emocijama malih pacijenata i njihovih roditelja, kao što su poricanje, ljutnja, agresija ili plakanje.

Zaključak

Pitamo se kako dakle, u teškim situacijama izreći istinu, kako imati u vidu cjelinu bića kao takvoga, a da ga se ne slomi, ne odlomi, kako i gdje da sam jezik dođe do riječi u teškim trenucima u kojima se nađe medicinsko osoblje i kako priopćiti nepriopćivo, na koji način jezik može pomoći liječniku? Upravo tamo gdje za nešto, što nas ide, tišti ili skamenjuje od boli, ne nalazimo pravu riječ. Ta bol siječe, ali upravo u tom sijeku kao istini koja kida ali ipak vuče k sebi i sabire, oslobađa. Bol tako postaje ono što u razlučujuće-sabirućem kidanju spaja.³⁹ Tada ono što mislimo ostavljamo neizrečenim, neizgovorenim i pri tome, a da toga nismo ni svjesni, proživljavamo trenutke, u kojima nas jezik sam izdaleka i površno tiče svojom biti. Ondje, dakle, gdje valja nešto izgovoriti što do sada još nikada nije bilo izgovoreno, stoji sve do toga poklanja li nam jezik ili uskraćuje prikladnu riječ.⁴⁰ Ali kako se i može li se ikada itko pripremati i školovati za takve trenutke? Bitak svega što jest stanuje u riječi, u jeziku koji je kuća istine bitka, a kako izreći ovu istinu teško obojtelima? "Zakon je sudbine, da Svi se iskušavaju, da je tišina, kad se vrati, jezik." Tako kaže pjesnik Hölderlin, u himni *Blagdan mira*.

Jezik tako biva odnos nad odnosima, u jeziku se približavaju ljudi i iskazuju, prepustaju, pružaju drugome Ti. Jezik zadržava, uzdržava i svoji i obogaćuje to biti jedno uz drugo, drži ga i čuva. Tek tako shvaćajući i razumijevajući jezik kao odnos Ja-Ti tek tako može se ostvariti iskrena i empatična komunikacija liječnik-pacijent.

Možemo opet ponoviti i riječi Martina Bubera, da se *čudo isključive prisutnost* događa u susretu, u odnosu, kada pojedinačni i izdvojeni Ti stoji sučelice Ja. Tada se događa ljubav, koja je između, koja je susret i prisuće, ljubav koja je jedno, koja se zbiva, koja

³⁹ Martin Heidegger, *Kraj filozofije i zadaća mišljenja*, str. 335.

⁴⁰ Nav. dj., str. 347.

je čin, u kojoj boravi čovjek, ljubav koja je kozmičko zračenje ili fluid, ljubav koja vidi isključivo i samo cijelo biće, biće u cjelini i samo tada i samo takva ljubav koja je odnos, samo ona tada može pomoći, iscijeliti, podučiti, uzdići, izbaviti. Tada je ta i takva ljubav odgovornost jednog Ja za jedno Ti, u tome se sastoji i jednakost sviju koji vole, od najmanjeg do najvećeg, od najslabijeg do najmoćnijeg, od liječnika do pacijenta, koji je u oslabljenoj poziciji i traži lijepu riječ, a ne samo hladnu dijagnozu. Tako povezani nedokučivom vezom živimo *u struji univerzalne recipročnosti* i djelujemo jedni na druge. Samo tada čovjek postaje Ja u dodiru sa Ti.⁴¹

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⁴¹ Martin Buber, *Ja i Ti*, str. 15.

Esmeralda Sherko*, Eugjen Sotiri, Erinda Lika

Therapeutic communication

ABSTRACT

This article focuses on the concept of "Therapeutic communication". It also tries to highlight the importance of this concept, which through verbal or nonverbal communication makes the nurse consciously influence a client or help the client. It involves the use of specific strategies that encourage the patient to express feelings and ideas. There are different reactions to "therapeutic communication" as all patients differ in their characters, background, social status, culture, etc.

This article will also compare the role of the nurse as compared to that of the doctor. They must both master efficient therapeutic techniques of communication in order to establish empathy towards the experience that the patient reveals. It is of great importance for them to have communicative therapeutic skills in order to successfully apply the communicative process as well as to fulfil the standards of healthcare for the patients. Through therapeutic communication they should establish a relationship, identify the patients' worries and needs, estimate the perceptions of the patient including detailed actions (behaviour, messages) etc. Results and recommendations will include a comparison between different techniques of therapeutic communication based on different experts such as Knapp and Hall, De Vito etc.

Key words: therapeutic communication, (non) verbal, doctor, nurse, patient

Introduction to therapeutic communication

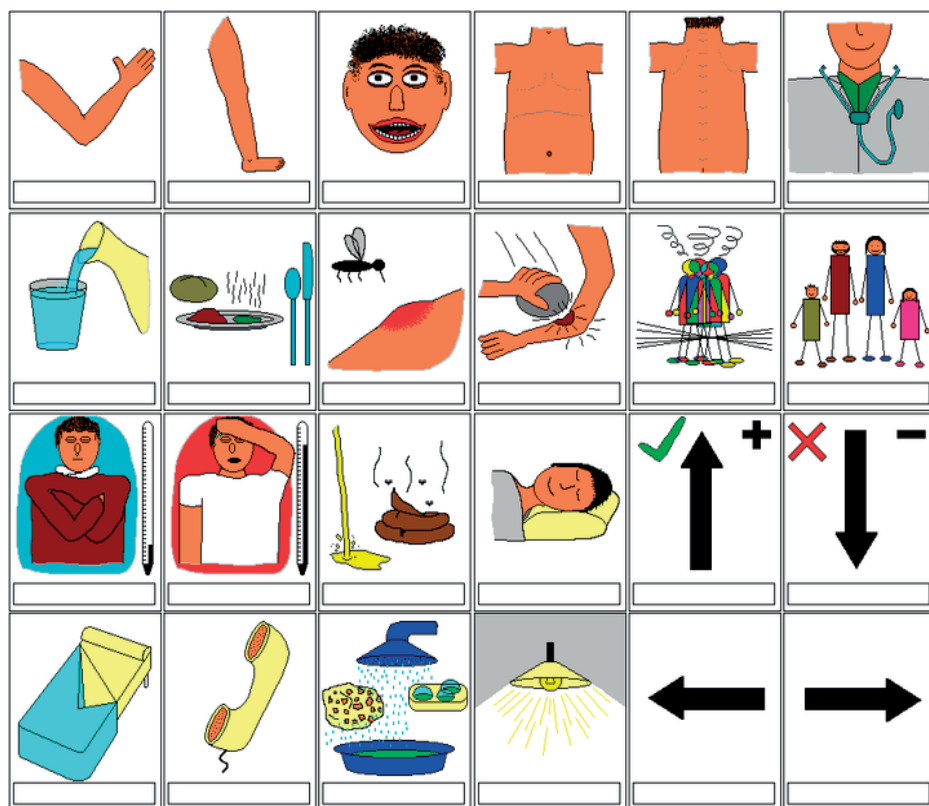
The concept of "therapeutic communication" refers to the process in which the nurse consciously influences a client or helps the client to a better understanding through verbal or nonverbal communication. Therapeutic communication involves

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the use of specific strategies that encourage the patient to express feelings and ideas and that convey acceptance and respect.¹ However the concept has been defined furthermore by different scholars analyzing the terms separately, in terms of word structure and meaning. Therapeutic and communication are two complex words each of which containing different meanings. However the term gains quite another meaning when referring to medical terminology and when considered as a compound noun. **Therapeutic** – refers to the science and art of healing (Miller and Keane, 1972); of or pertaining to a treatment or beneficial act (Potter and Perry, 1989). This can be further extended to include what Rogers (1961) calls the helping relationship, which is one that promotes growth and development and improved coping with life for the other person. **Communication** – has a number of definitions that tend to emphasize either the message or the meaning. Mohan, McGregor and Strano (1992) provide the following: the ordered transfer of meaning; social interaction through messages; reciprocal creation of meaning; sharing of information, ideas or attitudes between or among people. De Vito (1991) suggests that communication is an act by one or more persons of sending and receiving messages that are disturbed by ‘noise’, occur within a context, have some effect and provide some opportunity.

Therapeutic communication involves the exchange of information on two levels verbal or nonverbal. Messages are sent and received simultaneously. Verbal communication includes the arrangement of words into sentences, the content as well as context – the area where the conversation takes place which might include the time and the physical, social, emotional and cultural environment. (Weaver, 1996). Nonverbal communication includes the behavior accompanying the verbal content such as body language, eye content, facial expression, the tone of the voice etc. Nonverbal communication mainly indicates the thoughts, needs or feelings of the client, mainly subconsciously. Non-verbal communication may include the following activities:

¹ Mosby's Medical Dictionary, 8th edition. © 2009 Elsevier.



Symbol Table for Non-verbal communication with patients²

Different theories and viewpoints of therapeutic communication

Therapeutic communication techniques have been studied and elaborated by different scholars³.

Hildegard E. Peplau was a primary contributor to mental health law reform, thus leading the way towards humane treatment of patients with behavior and personality disorders. She introduced the theories of developmental stages of the nurse-patient relationship. The stages included: *the orientation phase, the identification phase, the exploitation phase and the resolution phase*. Her theories led the path to later nurse theorists and clinicians in developing more sophisticated techniques.

² Source: Wikipedia – the free encyclopedia

³ Elezi F, Tomorri S, Sotiri E, Dobi F, *Textbook of psychiatry*, Tiranë 2012,

J. A. De Vito's involved three context dimensions to consider during the communication process. They were: *physical, social/psychological and temporal*. The three content dimensions interact, they are not applied separately. The factors in each dimension influence the formality, seriousness and intimacy of the communication. De Vito (1989) also implies that this is a very linear process where the communication starts with one person and proceeds via a series of steps to another person.

Northouse & Northouse (1992) suggests using a form of touch so that the patients will perceive touch in a positive way. It has to be appropriate to the particular situation, not to use a touch gesture that imposes more intimacy on a patient than he or she desires, and to observe the client's response to the touch.

Potter & Perry (1999) studied and analyzed different aspects of verbal communication resulting in six of them as the most important ones. They were: *vocabulary, denotative and connotative meaning, intonation, pacing, clarity and brevity, timing and relevance*.

Knapp and Hall (2002) arranged the way in which nonverbal messages can interact with verbal messages. According to Knapp and Hall the categories are as follows: *repeating, conflicting, complementing, substituting, regulating and accenting/moderating*. In case of mixed messages it is the mental health professionals' duty to pay attention to nonverbal communication techniques used by the patient to attain additional information. Body movements and positioning are to be noticed when people perceive mixed messages during interactions.

Arnold & Boggs (2003) concentrated on nonverbal communication which includes messages that are created through body motions, facial expressions, use of space and sounds and the use of touch. They distinguished four areas in which nonverbal behaviors are used: *proxemics, cultural variations, kinesics which includes body language and facial expression, and appearance*.

Therapeutic communication in Albania

The political transformations after the 1990s in Albania had their influence in all the fields of science thus giving way to new progress. The present day Albanian society is transforming itself in a dazzling manner. There is a wide variety of transformations embracing all walks of life, science, technology or significant fields such as, medicine and its related fields that are vitally critical to sustaining human health and well-being. Medicine is a tremendous science that has undergone great development. As with all the other specialties with social interactions, psychiatry and mental health field suffered totalitarian control during the communist regime encoun-

tering difficulties in the way patients were treated as well as in the manners that were used to treat the patients. As in all the fields even in medicine, the psychological and psychiatric orientation were heavily influenced by the soviet methods and school filled with political interventions. After the collapse of the communist regime all fields of science underwent thorough transformations and changes to adapt to the contemporary methods used worldwide. These methods of therapeutic communication started being used even in Albania and made progress in all the fields of mental health step by step. Nowadays not only have they been mastered by the mental health care professionals, but also by the nurses as the whole educational system has undergone complete transformation, thus graduating university level professional nurses at the Faculty of Nursing. However a lot is yet to be done on a professional level as well as in infrastructure. Therapeutic communication used by health care professionals is only offered by the most important mental health care centers in the country for the time being. This needs to be extended all over the system of healthcare. Intensive care must be paid to apply and offer professional assistance all over the country through multidisciplinary highly qualified teams.

Therapeutic nurse – patient relationship

Therapeutic communication involves the interpersonal communication between the patient and the nurse. This communication is intended to help the patient. The skills required in therapeutic communication are delicate and far numerous than those required in general interpersonal interaction, and mastering of therapeutic techniques helps the nurse understand the patient better. Sound interpersonal interaction skills for the nurse are of great importance and necessary for effective therapeutic communication. However therapeutic communication is aimed at establishing several objectives for the nurse as a mental health professional. Communication is the means which initiates, elaborates and ends the nurse- patient relationship. In order to achieve an efficient therapeutic communication the nurse must follow the rule of privacy and confidentiality-safeguard the patients' rights to privacy, allow the patient to express themselves freely, respect the patient by taking into consideration the background, age, religion, socioeconomic status and race in respecting personal space. The nurse must be ready to distinguish between the patient's needs and intentions; he might need to set the limits in case he feels that they are going to be violated. Professional communication is very important for the relationship between the nurse and the patient. They both need to follow rules, use courtesy forms: say hello, goodbye, knock on doors, introduce themselves, make eye contact, smile etc.

Therapeutic communication includes *five levels*:

1. Interpersonal Communication - Face to face interaction between the nurse and another person.
2. Transpersonal Communication- Interaction that occurs within a person's spiritual domain.
3. Small-Group Communication- Interaction that occurs when a small number of people meet and share a common goal. (The latter not widespread in Albania)
4. Intrapersonal Communication- Powerful form of communication that occurs within an individual.
5. Public Communication- Interaction with an audience (nurses are required to use eye contact, gestures, etc).

The nurse and the patient need to collaborate actively following different types of communication:

- Active listening- attentive to what the patient is saying verbally and non-verbally.
- Share observations- make comments on how the individual looks, sounds or acts.
- Share empathy: be sensitive to the patient.
- Share hope- conveys a sense of possibility.
- Share humor- has a positive effect on an individual. Make sure the patient understands what is being said.
- Sharing feelings- help patients to share feelings by observing and encouraging communication.
- Use touch- brings the sense of caring by holding a patient's hand.
- Use silence – it is useful in allowing the patient to think and gain some insight into the situation. Listening is crucial.

Therapeutic versus non therapeutic communication techniques

The nurse might employ different techniques to establish a relationship with the patient. The selection of the technique depends heavily on the purpose of collaboration and the ability of the patient to communicate verbally. The nurse needs to master each technique in order to be able to select the right techniques which would facilitate the interaction and strengthen the nurse- patient relation. Therapeutic communication helps patients to trust and relax, while non-therapeutic communi-

cation causes patients to feel uncomfortable and untrusting and builds walls barring communication between caregiver and patient.

Therapeutic communication techniques

- *Asking relevant questions.* Ask questions one at a time, to explore the topic before going on.
- *Providing information.* Provide information that the patient needs to know.
- *Paraphrasing.* Restating the patient's message so that s/he knows that the nurse is listening.
- *Clarifying.* Assess whether the patient understood the information.
- *Focusing.* Focus on key issues in the conversation.
- *Summarizing.* Brings a sense of closure to the conversation.
- *Self disclosing.* It is a way of showing the patient that the information is understood and shows respect for the patient.
- *Confronting.* Helps the patient realize his/her inconsistencies in feelings, attitudes, or beliefs.

Non-therapeutic communication techniques

While therapeutic techniques promote efficiency, non therapeutic ones might have a contrary effect. They might inhibit communication with the patient. The nurse needs to be well trained in order to prevent using non-therapeutic techniques. Non-therapeutic communication techniques include:

- *Asking personal questions.*
- *Giving personal opinions.*
- *Changing the subject* tends to block further communication.
- *Automatic responses* show that the nurse is not taking the situation seriously.
- *False reassurance* which is not supported by facts may do more harm than good.
- *Sympathy* is subjective. It prevents a clear picture of the patient's situation.
- *Asking for explanation.* Questions can cause resentment.
- *Approval or disapproval.* These may send the message that the nurse has the right to make judgments.
- *Defensive responses.* The patient might feel that s/he has no rights to an opinion.
- *Passive or aggressive responses.* Passive responses avoid the issues and aggressive responses maybe confrontational.
- *Arguing.* It might imply that the patient is lying or misinformed.

Communication using therapeutic techniques establishes a relationship between the nurse and the patient. These techniques are put into practice during the process of communication with the patient. There are different forms used to collect information from the patient. The most widely used is the interview. It is an organized conversation with the client to obtain the client's history and information about the current illness. The interview involves different types of questions and phases.

There are three **types of questions** each of which serves different purposes.

1. *Open-ended questions* make the patient tell his/her full story about the health problem. The nurse establishes concern about the patient and may encourage the patient to add more information by saying: 'Is there anything else?'
2. *Closed-ended questions* are in fact limited to one or two word answers such as "yes" or "no". However these are used when the nurse wants to know a specific answer to a question.
3. *Focused questions* come in use when there is an established, strong relationship. These questions can result in lengthier responses, but are only used with a resistant patient.

The interview involves **three different phases which include:**

The *orientation phase* during which the nurse introduces his/herself to the patient and explains the purpose of the interview. The nurse explains why the data is being collected. The nurse needs to understand the patient's needs. Trust and confidentiality must be conveyed. Professionalism is extremely important.

The *working phase* during which the nurses asks questions to obtain data for the purpose of developing a nursing care plan. In this phase, the nurse uses such strategies as silence, listening, paraphrasing, clarifying etc. to facilitate communication.

The *termination phase* during which the patient needs to know the interview is coming to an end. The nurse can say that there are just a few more questions to ask. The nurse summarizes the information and asks the patient if this information is accurate.

Therapeutic doctor - patient communication

During a therapeutic communication interview the doctor-patient relationship must follow professional standard rules, which are necessary for the treatment that will take place. One of the most important steps is to monitor and set limits on both the patient's and the doctor's behavior. Some key determining features on how the relationship develops are the tone, nature, and focus of the encounter between

patient and doctor. The established relationship plays a key role on the information they exchange depending on the degree of communication achieved, amount and quality of the information provided, feelings of partnership, respect of the physician for the patient, and the ability of the physician to motivate the patient. According to some studies patients appreciate health care more after having established rapport with the physician, are given explanations about their symptoms and information about the treatments prescribed; patients are able to ask questions and to discuss their ideas and those of the healthcare provider, and perceive the physician as seeking to build a partnership. Therapeutic communication focuses on advancing the physical and emotional well-being of a patient. It involves *three general objectives: collecting information to determine illness, assessing and modifying behavior, and providing health education.*

There are often two types of interviews used by mental health care professionals. *The disorder centred interview* and *the patient centred* one. *The first* focuses on specific signs and symptoms for a disorder which are to be discovered, whereas the second focuses on live experiences and models of functioning of the patient. The health care professional has to give opinions and insights which are always part of the therapy especially when dealing with the patient centred interview.

It is important to emphasise that even the interview is a process of therapy. The mental health professional should bear in mind that sometimes patients are too diffident or reserved to unveil specific information and switching from one type to the other is often the key to a successful therapeutic communication.

Conclusions

Therapeutic communication which is intended to help the patient involves the interpersonal communication between the patient and the nurse. Therapeutic communication techniques infer independence on the patient. The role of the healthcare professional is then to use this information to help the client to further investigate his own feelings and options. Therapeutic communication requires awareness of the professional towards what is being said as well as any nonverbal cues. The mental health professional must pay special attention to the patient and the techniques followed as s/he might unconsciously influence the patient through the use of non therapeutic techniques.

The role of the health care professional in determining the illness through the steps and techniques followed is the key to a successful therapeutic communication. Therapeutic communication is a purposeful form of communication, allowing the

health professional and the patient to reach health-related goals through participation in a focused relationship. Barriers to communication may have a negative effect on the patient, lowering the patient's self-esteem and may block communication. Collaboration with all the members of the health care team might be considered the key to a successful therapeutic communication.

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GODIŠNJAK
Katedre za društvene
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Medicinskog fakulteta Sveučilišta u Rijeci

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Are the methods to use historical lexicology (etymology) in contemporary medical terminology teaching reasonable?

ABSTRACT

Latin medical terminology is an obligatory course in the curricula of the Slovak medical faculties, encompassing history of medicine condensed in origins of medical terms and their current meanings, both in theory and practice.

Course lecturers believe that terminology teaching should not be reduced to building supportive grammatical structures serving only the function to use it correctly. At present, we find terminology taught in relation to etymology and definition especially contributing. We have developed and subsequently applied a 4-type model presenting these relations in teaching it.

Students' feedback to teaching medical terminology also from etymological aspect showed their interest in this way of teaching. In the academic years to come it calls for more specific verification of the efficiency of this teaching method in a follow-up survey.

If the methods presenting etymology in confrontation with the present term definition are applied in teaching, they are reflected in better understanding and more effective fixation of terms. Our teaching experience has found this model effective in providing an easy-to-memorize aid applicable in manipulation with terms.

Key words: medical terminology teaching, etymology, definition, history of medicine

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Introduction

Knowledge of the medical terminology belongs to the target competencies of medical students, which is the reason why its teaching is included into the medical curricula on an obligatory basis at the medical faculties in Germany¹, as well as in the Central Europe -Poland, the Czech Republic, Austria, and Slovakia.

The goals in teaching medical Latin include achievement of terminological competence, i. e. capability to use medical terminology accurately and correctly both in oral and written forms (based upon grammatical structures and word-formation teaching), as well as basic orientation in general characteristics of medical terminology supported by cultural and historical aspects (in the development) of the ancient and medieval medicine and its terminology.² These viewpoints are also shared by didactic conception of German medical terminology textbook *Lingua medica*³: "Terms, we use nowadays are living witnesses of an uninterrupted tradition that has its roots in antiquity and is still valid. Ignoring these sources and using helplessly nomenclature that carries signs of thousand-year cultural process means to miss a chance and accept the gaps in comprehension and in knowledge." Wolfgang Caspar in his handbook *Medizinische Terminologie* adds¹: "Knowledge of medical terminology is now no longer able to be mediated only on the basis of classical Latin and Greek. In the didactic process must be taken into account the post-classic development of Latin and Greek". From the quotations stated above it is clear that the Basics of Medical Latin Terminology course are taught by classical philologists focused on medicine and its history.

There exist, of course, opposite views and/or experience as is for example demonstrated in an American study provided in *Anatomical Sciences Education*⁴, which, based on comparison of the Anatomy test results in students with and without previous medical terminology course, denies the necessity and reasonability of medical terminology to be included in the medical schools' curricula, claiming that medical terminology teaching does not directly increase the effectivity of medical terminology acquisition. Another American academic view that is represented by L. A. Dean-Jones in her study *Teaching medical terminology as a classics course*⁵, where she claims: "Now that I have ceased to undercut the value of learning roots, prefixes and suffixes, the students more readily see the advantage of having the course taught by an instructor conversant with the basic Greek and Latin meaning of these roots".

Medical terms as all the other professional terms can be specified from two basic viewpoints: from etymological point of view and from the point of view of their definition. While etymology responds to the questions where, when and how a con-

cept came to its existence, definition specifies such concept providing its basic, typical signs, which means that it is its language expression. Therefore, we consider it necessary in providing the students with the guidance in presentation of the terms as language phenomena and in their semantic orientation. Together with a "true" terminology taught in anatomy and clinical disciplines, the student simultaneously obtaining a comprehensive professional and linguistic background of many medical terms.

Etymology (from Greek word ἔτυμος /*etymos*/ = certain, right, true, obvious) is a part of historical lexicology dealing with origin and development of a word, usually by means of comparative linguistics. Precise definition of etymology can be found in *Webster's II Dictionary*⁶: "The origin and historical development of a linguistic form is shown by determining its basic elements, discovering its earliest known use, recording its changes in form and meaning, tracing its transmission from one language to another, and identifying its cognates in other languages". In short: in each word the type of sounds, meanings and use are inseparately interconnected. Each of these components is exposed to changes in time and place.

Therefore, when we are looking for *etymon* of some word, we are also discovering changes it underwent in place and time from the beginning of its existence. In this respect scientific etymology does not look for "strictly stipulated obligation", but it reveals, describes and sets its changing semantic form into contemporary historical and cultural interrelations. By means of medical etymology we are getting into contact with the history of medicine, history of human ideas and struggle how to understand the power of human being and nature.

History reflecting language knowledge in medical terminology

Basic task of terminology work is to determine semantic and professional validity of a lexical unit – term. To do so, etymological and definition aspects have to be employed. That is why majority of terminological dictionaries as well as terminology textbooks present the data of both of them.

It is a long time since we have come to the conclusion that didactic process based on textbooks listing only components/roots of medical terms and explaining specific features of Latin and Greek grammars is frustrating and unappealing for students and their comments that any medical dictionary would equally help are legitimate. L. A. Dean-Jones shares similar experience : "I was mystified both by the student's frustration at the number of individual words they felt they had to learn".⁵ In her paper dealing with teaching Latin etymology she concludes that "the modern clini-

cal definitions of cholera, typhus and eczema cannot be gleaned from their etymology because this enshrines ancient medical theory".⁵ On the basis of exploring the relations of etymology and definition in medical terms, we have established **four basic types** of relations for teaching medical terminology depending on the fact that an established idea of harmony existing between etymology and definition of a term cannot be accepted generally. The etymological meaning in this paper is understood as an original meaning (the earliest cited/found meaning). Original meanings are to be understood as the meanings presented in the works of ancient medical writers or those listed in medical dictionaries or thesauri.

Type 1: Etymology equals definition

The first group includes the terms which have preserved their original meaning, i. e. etymological meaning and definition (= present meaning) tally, e. g. the word *cor* (Lat.) denoting the heart means today as well as 2000 years ago the same organ. The same holds for *oculus* (Lat.) eye, *hepar* (Gr.) liver, etc. Our typology is based on an older source⁷ and schematic visualization of this relation between etymology and definition is as follows:

Etymology = Definition

Type 2: Etymology as a reference to definition

Quite different situation may be observed in the case of *anemia*. Its etymological "wording" is as follows: Gr. *-an* neg. + *haima* – blood + *-ia* [8] and [9]. Etymological meaning of this term stemming from its components does not tally completely with its present meaning defined as: "The condition characterised by reduced quantity of the red blood cells, hemoglobin"¹⁰; or: "A reduction below normal in the number of erythrocytes per cu. mm., in the quantity of hemoglobin, or in the volume of packed red cells 100 ml of blood which occurs when the equilibrium between blood loss and blood production is disturbed".⁹

Similar case is that of the term *morbilli* – measles. Etymology of the Latin word *morbilli* shows that it is a diminutive of the word *morbus*.¹¹ This term (meaning literally "minor diseases") has its origin in the Middle Ages and is understood as an opposite to "major diseases"¹² that were afflicting people in those times (plague, cholera). The diminutive was obviously used also because the disease afflicted just children population. Its nowadays definition as: "Acute viral infectious disease afflicting mainly children, manifested in typical exanthem, fever; it is caused by the virus of measles from the Paramyxivirus family", [10] and [8] shows the only fact it has in common with the original understanding of this notion is that it relates to children.

The meaning of the Latin word *promontorium* – a mountain ridge, a headland, from *promineo* – to jut out¹¹, suggests the meaning of a modern medical term. In the medical terminology it was introduced on the turn of the 18th and 19th century by German gynecologist Osiander to indicate "pelvic promontory", the most prominent point of the lumbosacral symphysis, i. e. that of the sacrum and of the last lumbar vertebra.¹² In anatomy it is currently known as *promontorium ossis sacri*¹³ – promontory of the sacrum: the prominent anterior border of the pelvic surface of the body of the first sacral vertebra⁹. Later on the same metaphoric meaning was transferred to "the prominence on the medial wall of the tympanic cavity, formed by the first turn of the cochlea" which corresponds to another anatomical term *promontorium tympani* – promontory of the tympanic cavity.^{[9] and [13]}

Etymological meanings of these terms provide the first signs of their present meanings shown in the word elements. It can be observed in the name of *anemia*, whose literal translation as "lack of blood" points at least to that it is a pathological condition connected with "reduction" of blood; the term *morbilli* shows as well the connection between etymology and nowadays meaning as is presented above. The basic concept *promontorium* refers to its new meaning which is based on the original metaphor indicating "a projecting eminence". It can be put in the following scheme:

Etymology - - - » Definition

Type 3: Old concepts – new meanings

There are also medical concepts that have undergone significant changes in their meanings in the course of centuries. In this respect etymology may lead to an incorrect interpretation of modern meaning. The anatomical term *artery* can be presented as an example of this. The word artery probably consists of the Greek word ἀήρ / *aēr*/ - air and the verb τηρεῖν / *térein*/ – to keep, because the arteries were supposed by the ancients to contain air, or from Gr. αἵρειν / *aeirein*/ – to lift or attach.⁹ Its meaning thus was that of keeping air, the pipe keeping air, which corresponds to the understanding of the ancient Greek medicine that veins contain haima (blood) and arteries pneuma (air). Therefore, according to the works in *Corpus Hippocraticum* as well as those by Aristotle, the meaning of ἀρτηρία / *artēria*/ was windpipe. ^{[14] and [15]} For comparison here is a modern definition of the term of artery: "The vessel in which the blood expelled from the heart is flowing"⁸, or: "The blood vessel that carries blood from the heart to an organ or tissue". ¹⁶

The name *phrenopathy* also belongs to the concepts that have adopted new meanings in the course of their development. Original meaning of the word φρήν / *frēn*/

was diaphragm. But because the Greeks believed that thinking and feeling was seated in this organ¹², this word started to denote also mind, soul, spirit or brain power. Therefore we know the term *phrenoptosis* as a fall down (prolapse) of the diaphragm, but also the term *phrenopathy* – any emotional or mental disorder¹¹, or *schizophrenia* – mental disease leading to the split of personality.¹⁰

The term *hysteria* can be also included among the terms denoting notions that have changed their meanings and are not connected with the meaning expressed in etymology of such word. The old Greek word ὑστέρα /*hystéra*/ = womb can be found in many present medical terms as a word component, e. g. *hysterectomy* – surgical removal of the uterus, or *hysteroscopy* – visual examination of the inside of the uterus by means of a special

instrument, etc. The oldest sources¹⁴ present uterus as "a cause of thousands of diseases". Hippocratic physicians therefore believed that *hysteria*, manifested in a neurotic way of behaviour, was an illness caused by the disease of uterus, that it was a typically female disease.¹² This concept has preserved up today, it is defined as "a diagnostic term, referable to a wide variety of psychogenic symptoms which may be mental, sensory, motor, or visceral"¹¹, or "a neurosis by conversion symptoms, a calm mental attitude, and episodes of hallucination, somnambulism, amnesia, and other mental aberrations".⁶ Nowadays, of course, it concerns both sexes.

Several concepts (*artery*, *phrenopathy* and *hysteria*) show that in the course of time notions sometimes changed their meanings and their word-formation components do not tally with their present meanings. It can be put in the following scheme:

Etymology › - - - || Definition

Type 4: Etymology – Definition: a questionable relation

In some concepts it is very difficult to derive etymological deductions that would lead to meaningful result, because despite the fact that there are relations, they are not obvious and unequivocal, i.e. not generally comprehensible.

The concept *chronaxia* from Gr. χρόνος /*khrónos*/ = time + Gr. ἀξία /*axía*/ = price, merit¹⁷ is defined as follows: "chronaxy – the minimum time an electric current must flow at a voltage twice the rheobase to cause a muscle to contract".⁹ This definition must be left misunderstood unless studied by a professional in that particular technical branch and within its close relations. An attempt to explain the term presented in the Italian Historical Etymological Dictionary of Medical Terms in more details shows that this term was introduced in 1909 by L. and M. Lapicque to denote time duration of the electric current basis in physiology opposite to reobasis ("I

suggest to call this duration as chronaxia, "ἄξία – value, χρόνου – of time"¹⁸⁾, but it does not help us to understand this term just from its etymological basis.

The terms *sympathicus* – *parasympathicus* appeared quite late and to understand them properly the substantive *nervus* has to be supplied. According to their definitions they

denote parts of the vegetative nervous system which as the autonomous nervous system serves to control the vital functions (breathing, digestion, metabolism, etc.). According to *Duden – Das Wörterbuch medizinischer Fachbegriffe*¹⁶ abbreviated term *sympathicus* comes from the original Greek word συμπαθεῖν /sym/ path/ ein/ = to sympathize with someone who has a problem, to show that you understand and care, and no links are found in it with the modern definition stated above. As late as in the 19th century the term *nervus parasympathicus* was coined to denote the nerve with the opposite effect of that of *nervus sympathicus*.¹² Both of them have to be understood as parts of the vegetative nervous system which works in antagonistic way. In the present *Terminologia Anatomica*¹³ both of these expressions occur just in these terms: *pars sympathica divisionis autonomici systematis nervosi* and *pars parasympathica divisionis autonomici systematis nervosi*.

Relations between etymology and definitions in the terms *chronaxia*, *sympathicus* – *parasympathicus* are rather questionable and may be put down as follows:

?

Etymology - - - - || Definition

Students' feedback

In line with the latest didactic principles we find it important to keep "the content and methods of teaching custom-made to suit students' individual as well as professional needs"¹⁹ i.e. students actively participate in didactic process and freely express their opinions about the content and teaching methods.

We can claim that students in our course expressed an exceptional interest in historical viewpoint on medical terms preferring even this type of teaching rather than grammatical rules. During the terminology classes students became interested in development of etymology background in other interesting medical terms, comparing them with their recent meaning (definition) thus giving rise to short papers which were presented in groups in front of other students. To write a paper, they collected

data consulting medical and etymological dictionaries, or electronic sources whilst applying our typology.

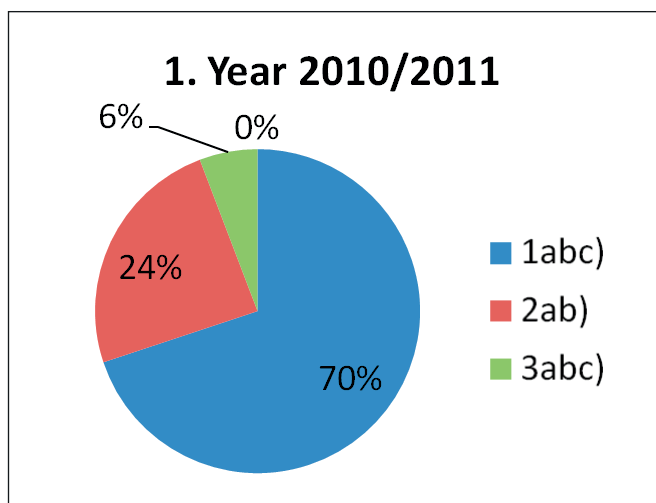
To elicit students' opinions on history reflecting language knowledge in medical terminology, a method of the end-of-course questionnaire was used for the first time for students to express their attitude towards this type of teaching. Anonymous end-of-course questionnaire on importance of teaching medical terminology **with the use of typology** of etymology - definition relationship comprised these prompts:

1. teaching conducted in this way is important for me mainly for
 - a) practical reasons (better understanding and memorization of terms)
 - b) interest in history of medicine
 - c) other reasons (please state)
2. teaching conducted in this way is of some importance, but I prefer standard way of teaching (i.e. based only upon grammatical structures and word-formation)
 - a) because it is sufficient for me
 - b) other reasons (please state)
3. the method of teaching medical terminology is unimportant, because
 - a) it is not a primary course of study
 - b) I am not interested
 - c) other reasons (please state).

Basics of Medical Terminology course in the academic year of 2010/2011 was completed by 121 first year students out of which 103 participated in the survey.

The survey results confirmed students' interest in this type of teaching manifested during the semester - etymology teaching approach is important for 72 students (69.9%). Thirtysix respondents who opted for preference 1.a (stating practical reasons, which was most repeated preference) were represented by 34.9%. Two reasons (practical aspect and interest in history of medicine) were stated by 17 students (16.5%). Sixteen students (15.5%) chose only one option – 1.b (interest in history of medicine). Options 1.ac and 1.abc were picked and justified by 3 students (2.9%). Twentyfive respondents (24.3%) would prefer standard, traditional way of teaching medical terminology; all of them stated that classical way of teaching is satisfactory. Six students (5.8%) expressed the opinion that the method of teaching medical terminology is irrelevant, out of them 3 students (2.9%) think that this course is not of crucial importance and 3 students (2.9%) are not interested in this subject. Option 3.c was not selected at all.

Graphical presentation of the statistical data:



The survey results are highly significant and undoubtedly a great encouragement for instructors, however, the sample of the students is small and the validity of the approach is not measured by means of objective markers. It will be necessary to repeat the survey in the following academic years to confirm and support the tendency towards this way of medical terminology teaching.

Conclusions

Medical terms as well as all other groups of word classes can be studied from two basic points of view: etymology and definition. While etymology as a part of historical lexicology responds to the questions where, when and how the particular term came to its existence, definition specifies such concept providing its basic, typical signs, which means that it is its language expression.

Therefore, contemporary teaching of medical terminology should be supported by cultural and historical aspects of the ancient and medieval medicine (history reflecting language knowledge in medical terminology), and thus make didactic process more effective. Etymology and definition relation in medical terms brings new aspects into medical terminology teaching. Comparison of meaning and definition in this relationship means that the terms explained from their historical aspect are easier to be understood and remembered. Also it may evoke interest of the students, which was confirmed by the first series of our questionnaire. We consider this linguistic material contributive to teaching of the course of Basics of Latin Medical Terminology from the point of view of both forms, i. e. language, as well as content. Material is ready-to-use and applicable for practicing professionally relevant lan-

guage phenomena and means, mainly on the level of word formation, but also on the lexical level. Besides that, it will enrich the students' background in history of medicine in a distinctive way and offer a number of inspiring and thought-provoking analogies.

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Acquisition of medical register through the communicative act of speaking

ABSTRACT

The study explores the role of speaking skills in the acquisition of medical register by international students learning Bulgarian as a foreign language in their preparatory year at the Medical University – Varna. Speaking as a productive language skill is particularly effective for the acquisition of the medical terminology that is most common, appears in speech with high frequency, and is typical mainly for the low and middle register. Although the study examines some of the challenges that the students experience specifically with Bulgarian oral speech (intonation, stress, pausing, clarity of articulation), it bears implications for the theory and practice of teaching the host country's tongue to international students of medicine or medical interns. It concludes that the objectives of language courses for international students cannot be limited to the students' acquisition of medical register for academic purposes, but inevitably ought to address their needs as future interns who will interact with patients and medical staff with different language and culture.

Introduction

The present paper focuses on the productive skill of *speaking* as part of the communicative process in the teaching of medicine. The reason we chose this topic lies in our daily work with international students in the course of their study of Bulgarian language, as well as in the fact that the issue has not been thoroughly researched. We regard speaking as an interactive process, i. e. simultaneously as the ability for individual expression through which oral verbal communication takes place and as the potential for understanding a foreign language. The successful realization of the

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communicative act of speaking is associated with the foreign language learner's ability to understand and make utterances adequate to the particular area of social interaction, subject matter and situation. The objective of this study is to explore the role of speaking skills in the acquisition of medical register by international students.

Methods

Our task was to examine how international students of medicine master certain peculiarities of Bulgarian language, as well as the use of Bulgarian in the professional communication between physicians, physicians and patients, and physicians and medical personnel. A second direction of research featured the acquisition of specific vocabulary in view of its use by international students in different medical registers. Considering these tasks, we registered by means of a portable recorder and analyzed the speech performances of 30 internationals on a given topic. The conversation topics were taken from the syllabus for the final examination in specialized language (Bulgarian as a foreign language for medical specialties). In their monologic speech, students were facilitated by visual stimuli (diagrams, pictures).

Substitution. Substitution refers to the age and personal characteristics of informants. The informants were selected by nationality (Turks – 20 and Greeks – 10), sex (male – 26 and female – 14) and age (18 – 23 years).

Results

1. The recordings of the students' speech show that the degree in which they master medical terminology depends primarily on their personal qualities and motivation rather than on their nationality.
2. Regarding the acquisition of the peculiarities of Bulgarian in terms of phonetics (articulation of vocals and consonants) and intonation of interrogative sentences, it was established that students from different nationalities experience dissimilar difficulties.

Greek students, for example, make mistakes in shaping the intonation of interrogative sentences. Most often, they erroneously apply rising intonation at the end of the sentence, while Bulgarian intonation patterns require falling intonation in interrogative sentences with question words such as *какво* (*what*), *кой* (*who*), *колко* (*how many*), etc.

Incorrect intonation	Correct intonation
Какво Ви боли? ↗	Какво Ви боли? ↘
От какво се оплаквате? ↗	От какво се оплаквате? ↘
От колко дни имате температура? ↗	От колко дни имате температура? ↘

3. The lack of the sound *ц* /tsə/ in Turkish leads to its replacement in spoken and written language with *mc* /tə'sə'/ or *c* /sə/: *свят* instead of *цвят*; *функция* instead of *функция*;
4. In Turkish, *л* /lə/ is softer than in Bulgarian, and is comparable to the soft Bulgarian *л* /l'/. This phonetic discrepancy causes errors such as *сѐдинител'на* instead of *сѐдинителна тъкан*.
5. **Metathesis.** Replacement of a fricative with a plausive consonant. The lack of a separate sound *б* /bə/ in Greek and the expression of *б* by means of a diphthong brings about errors like *Вулгария* instead of *България*.
6. **Elision.** Omission of the plausive consonant *т* /tə/ by Turkish students: *косна* instead of *костна система*.
7. Fricative *x* is pronounced as a guttural sound.
8. Regarding the articulation of vowels by Greek and Turkish students, mistakes are identical:
 - The Turkish vowel /ə/ is not identical to the Bulgarian *ъ*. It is articulated in Turkish as an open vowel. This divergence between the two tongues also leads to a common error pattern: *клетачен* instead of *клетъчен*; *белтаци* instead of *белтъци*;
 - Greek students tend to replace the vowel *ъ* /ə/ with *у* /u/. This is explained with the fact that in Greek the vowel /ə/ is absent.

In modern Bulgarian, no phonetic rules exist for determining the place of stress in words. This confuses the students from Turkey since in Turkish the stress patterns are regular, with the main stress falling on the last syllable (Zimmer, Orgun 1999: 154-158). It is therefore important that instructors of Bulgarian make their Turkish students learn and reinforce the new vocabulary through listening and pronunciation. The correction and prevention of incorrect stress placement is imperative in the case with words with a main and secondary stress or with two main stresses. The reason is that much of medical terminology consists of compound nouns and adjectives that belong to these stress types: *кръвоснабден* /krəvosnab'den/,

дванадесетопръстник /dva'nadeseto'prəstnik/, съединителнотъканна /sædə'nitelno'təkənnə/ (Dobrev 2011:368).¹

How do international students try to cope with the challenge of Bulgarian stress patterns? Most frequently, when uncertain of where to place the stress, they divide words into syllables by means of breaks: *непра/вилна форма* /nepra'-vilna 'forma/, *кръст/овата кост* /'krəst-ovata 'kost/. For comparison, students recur to intonation pauses when thinking over the logical arrangement of their statements. This occurs when the informants are not sufficiently prepared on the topic. The informants do not speak at the same pace. Those who feel more prepared for the task demonstrate a greater speech flow. With the deceleration of speech flow, repetitions in the informants' utterances are observed: *раменийа поас/ раменийа пойас е изграден от* /'ra:menija 'pōas/ 'ra:menija 'pōas e 'izgra'den ot/.

Our analysis allows us to conclude that the most common mistakes made by international students in speaking Bulgarian occur:

1. in shaping sentence intonation in dialogic communication.
2. in placing the stress in compound nouns and adjectives, as well as with proper pausing during utterances.
3. in articulating consonants and vowels.

The emphasis in teaching Bulgarian as a foreign language for healthcare specialties falls on the learners' ability to express themselves in direct communication with patients and medical staff during their clinical practice. To this end, future doctors ought to:

- master the peculiarities of Bulgarian and keep mistakes to a minimum.
- be prepared for professional communication in Bulgarian in academic and hospital settings.
- master medical terminology (specific categories, concepts, and phenomena).
- shift medical registers skillfully, in accordance with the communicative situation.

According to leading Bulgarian linguists, *register* includes the means of both written language and oral speech. Thus, Angel Pachev defines register as a relatively closed subsystem of linguistic tools, determined by the parameters of the social situation (Pachev 1993: 217). Similarly, Tacheva and Georgieva regard register as a linguistic phenomenon with specific lexico-syntactic features determined by different factors which vary in kind and importance according to the social and professional sphere

¹ A similar stress pattern for medical terms also occurs in English: *vascularized* ['vaskyulə'raɪzd], *duodenum* [duə'dēnəm].

(Tacheva, Georgieva 1998: 156). In this vein, we term *medical register* the peculiarities of verbal communication among health professionals and, on the other hand, among health professionals and patients.

Conversing and interacting in other ways stands as an important part of physicians' daily work. The physician's communicative competence is a quality of professional significance. According to Wiese, successful communication between physician and patient is contingent upon the physician's ability to make scientific content comprehensible for the patient. (Wiese 1984: 65) As for foreign interns, communication in Bulgarian in a Bulgarian hospital represents a considerable challenge. They need to understand patients of different ages and backgrounds. Some patients even speak a dialect. In their conversations with patients, medical students should be able to:

- ask information about personal data, genetic diseases, health status, and complaints.
- instruct patients and medical personnel about the course of treatment, laboratory testing, diet, etc.
- give explanations to patients about their illnesses in simple language.
- consult with / give or ask advice from colleagues about medical cases.
- inform relatives about patients' condition.

Communication between medical personnel and the respective communicative partners takes place:

- directly (face-to-face contact)
- on the Internet (video conferencing)
- by phone (with a patient, colleague, physician)

A more detailed study of register in healthcare communication has been conducted by Tacheva and Georgieva (Tacheva, Georgieva 1998: 156). They differentiate between three types of medical register:

- high (academic)
- medium
- low

High (academic) register is used for the exchange of medical information between professionals. It is incomprehensible and inaccessible for non-professionals. While encountered mostly in written form, elements of the academic register are also present in spoken language if appropriate for the communicative situation.

Medium register is intended for communication between medical staff or between medical staff and patients with good health literacy.

Low register is observed in the daily communication between medical staff and patients, or between physicians and patients' relatives. It is characterized by a vocabulary that is more accessible and comprehensible for patients. It is encountered mostly in spoken language.

As we already pointed out, *speaking* is understood as a two-way process that involves *both* the ability to make your own utterances and to comprehend the utterances of your interlocutors. By this token, to carry out successful medical communication, the future doctor should be able to speak, but to be a good listener as well. The following factors facilitate the communicative act of *speaking a foreign language*:

- clearly defined focus of the utterance – attainable communicative purpose
- extensive terminological and lexical stock
- logical thinking and adequate knowledge and skills for producing cohesive speech
- lucid enunciation – proper speaking technique that is characteristic of the respective language
- appropriate intonation in phrases and sentences
- clear articulation and diction

Discussion

Speaking skills are practiced with the help of preparatory speaking exercises. The aims of these exercises are:

- creating situations that approximate real-life professional communication where oral speech is used
- preparing communicators for spontaneous speech in agreement with the register appropriate for the situation

Based on our experience, more specific recommendations about the course content may involve: students can listen and watch dialogues between native speakers in healthcare-related situations. The videos should be accompanied with transcription/translation of the dialogues. Slow-paced dialogues allow students to learn through repetition the characteristics of the native speakers' speech.

Conclusion

Speaking plays a vital role in the daily work and interactions of medical professionals. The results of our study of international students in classes of Bulgarian for specific purposes at the Medical University – Varna bear implications for the theory

and practice of teaching Bulgarian, as well as for the teaching of the host country's tongue to international students of medicine or medical interns in general. Our observations confirm conclusions from research of multicultural/ multilingual hospital environments that apt choice of speaking exercises allows learners to assimilate "native speaker tonality" (Bloom, Timmerman, Sands 2006: 272). In our view, speaking as a productive language skill is particularly effective for the acquisition of medical terminology that is common, appears in speech with high frequency, and is typical mainly for the low and middle register.

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Applying medical discourse in ergonomics courses for students of technical sciences

ABSTRACT

The present paper explores the role of medical terminology in the teaching of ergonomics to students of technical sciences. It aims to describe and encourage certain positive practices in teaching "Ergonomics and ergonomic design" (EED), a course for students of technical sciences in Bulgarian universities, the Technical University of Varna in particular. The observations are based on the textbook and study aids for EED used by industrial design students who, in their second year at university, are enrolled in the course "Ergonomics and ergonomic design."

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Introduction

As a science that studies in their entirety the human functional abilities in the processes that take place at work or at home, ergonomics cross-pollenates with various sciences – medical (anatomy, physiology, hygiene) and technical (industrial design, cybernetics, etc.) (figure 1).

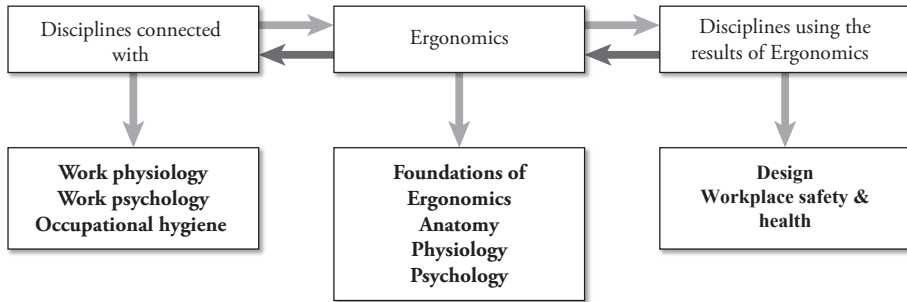


Figure 1

Purpose

The present paper focuses on the role of medical terminology in the teaching of ergonomics to students of technical sciences. According to specialized literature, the term *discourse* is conceived of as a synonym of terms with two different meanings: "situational speech" and "text" (Pachev 1993:42). For the purpose of this study, by *medical discourse* we designate the medical terminology, pertaining to the human factor, embedded in the academic discourse of ergonomics.

This project aims to describe and encourage certain positive practices in the teaching of students in the discipline "Ergonomics and ergonomic design" (EED), which involve the recontextualization of terminology from medical discourse and its application into the academic discourse of ergonomics as an interdisciplinary scientific field. The object of study is the utilization, definition, and clarification of the terminology and concepts included in the topics pertaining to the human factor in the EED course for students of technical sciences in Bulgarian universities, the Technical University of Varna in particular.

Our observations are based on Aleksi Momov's *Ergonomics and Ergonomic Design*, the most widely used Bulgarian coursebook in this interdisciplinary field, as well as on the study aids for EED students (Momov 2003: 15). In their second year, the students majoring in Industrial design at the Technical University of Varna are enrolled in the course "Ergonomics and ergonomic design" (EED). The object of EED

is the human work activities in the process of interaction with technology under the influence of environmental factors. According to De Montmollin (Montmollin 1973:35), the development of ergonomics becomes possible and necessary when the problems with the introduction and usage of new technology cannot be met by the means and methods of either the medical or the technical sciences.

The students enrolled in the Industrial design program, where the language of instruction is Bulgarian, are Bulgarian and Turkish. The teaching of specialized language in the program is needed for the students' successful advancement into an interdisciplinary field, as well as for developing their habits and skills for professional communication in their future work.

Future industrial engineers ought to master the medical terminology which pertains to ergonomics's conceptual apparatus. However, both Bulgarian and Turkish students encounter difficulties with acquiring medical terms. We relate these difficulties to:

- an inadequate educational foundation prior to university
- a poor general knowledge
- the qualities of individual students
- the lack of ample explanations/ illustrations of the subject matter in study materials

As future specialists in ergonomics and design, students ought to be able to plan the material environment in which humans live and work. The task of the designer is to align the workplace to people's characteristics in terms of anthropometry, age, race, sex, and health in view of their health and safety at work. Furniture at the workplace should be constructed in accordance with the Bulgarian State Standard (BDS) so that the worker, pupil, or student be protected from occupational diseases. In this regard, the relationship human-workplace-health constitutes a priority for designers and they should be sufficiently competent in projecting the material environment.

Medical discourse is indispensable for the instruction of EED students majoring in Industrial design, because:

- the human-machine-environment system (HME) represents ergonomics's central subject
- ergonomics is concerned with human health, work capacity, and productivity
- human work activities are related to microclimatic conditions (humidity, temperature, lighting)

Being in an engineering field, students are not familiar with the medical terms which encapsulate much of ergonomics' cognitive content and are present throughout their course. This creates problems with their instruction as well as with their ability to communicate on themes related to human anatomy, physiology, and oc-

cupational hygiene. It is therefore necessary to allot additional time for the clarification of medical conceptual apparatus. Students are assigned a course project – to make a presentation on a relevant topic, for example "ergonomic shoes." The purpose of the project is that students investigate the topic, familiarize themselves with basic terminology, and deliver an oral presentation. Students analyze the kinds of shoes, the types of feet (figure 2), and the possible diseases caused by non-ergonomic shoes. The next phase of the assignment is the preparation of a design of an ergonomic shoe suited for a certain type of foot.



Figure 2

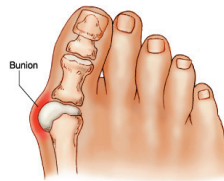


Figure 3

The diseases caused by poor working posture among workers and students (figure 4) represent another interesting topic in the instruction of students of design. A sample task is to examine the types of spinal curvatures – kyphosis, lordosis, and scoliosis. The task is not random. It is based on our study "Ergonomic issues of school furnishings", which looks into the rise in recent years of spinal curvatures among students from 1st to 4th grade owing to school desks that do not correspond to the anthropometric features characteristic of the students' age (Dobrev 2011: 69). All in all, the assignment prompts future engineers to explore and collect the basic medical terminology necessary for the upgrade and enrichment of their professional language.

Specialized medical vocabulary in the textbooks is represented by:

- simple terms – *flexion, adduction, abduction, pronation, supination*
- compound terms formed from two Greek roots – *somatography, ergonomics*

Terminological phrases are presented through certain models:

- N1-P-Art.-N2: *phalanx of the thumb, rotation of the foot*
- Adj.-N: *corrective movements, reflex activity, dynamic stereotype*
- Adj.-Adj.-N: *simple sensorimotor reaction*
- Adj.-P-Adj.-Adj.-N: *functional and dynamic anthropometric parameters*
- Adj.-N-P-Art.-N2: *anthropometric points of the head, sagittal plane of the head*

Grouped thematically, most simple terms in the ergonomic discourse correspond to:

- anthropometry – *pronation, supination*
- anatomy – *lordosis, kyphosis*
- physiology – *analyzer, receptor, reflex, induction (CNS)*

In ergonomic discourse, medical terms are introduced in the following ways:

- written in Bulgarian, according to the anatomical nomenclature, as part of the definition: "The *olfactory analyzer* is an information pathway accepting information that is important for the worker's health." (Momov 2003: 64)
- written in Bulgarian and Latin:
 - The main term is written in Bulgarian and designated by a Latin letter: "The *ninety-fifth percentile (P95)* is the value of the indicator which characterizes the large individual, with higher values being measured in only 5% of the cases observed." (Momov 2003: 29)

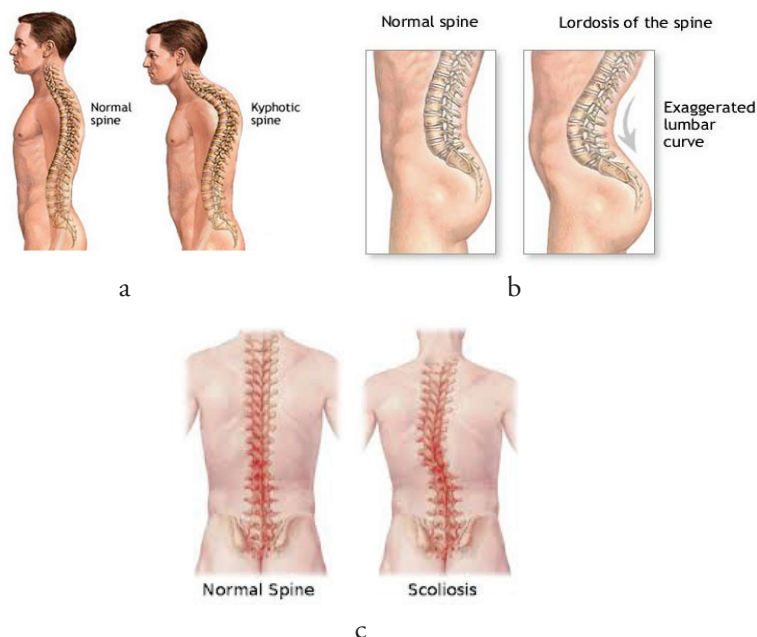


Figure 4

- The main term is written in Bulgarian and Latin: "*Metatarsalgia* [*метатарсалгия*] is a general term denoting pain in the foot just before the toes, commonly referred to as the ball-of-the-foot."
- Latin terms are only transcribed into Bulgarian, usually with no specifying notes: "High-heeled, narrow-toed, and tight-fitting shoes, as well as awkward gait are the most common causes of *bunion* [*бунион*]."

The conclusions from the present study will improve the effectiveness of EED courses. They also raise questions about the role of the Bulgarian university instructors in interdisciplinary areas like Ergonomics. In American universities – trendsetters in higher education across the world since the World War II – students of ergonomics or biomedical engineering (a discipline roughly equivalent to "medical equipment" in Eastern Europe) are prepared to meet the interdisciplinary challenge by rigorous training in the fundamental sciences on which ergonomics or biomedical engineering are based.¹ By contrast, while leading students into an interdisciplinary field, at the Technical University of Varna, we devote much of our energies and creativity to devising ways for filling in the gaps in their fundamental knowledge. Yet, under the current curriculum, certain steps and supplementary activities could facilitate instruction and enhance learning in EED courses. We recommend that a glossary with explanations of medical terms be compiled for the specific needs of the ergonomics courses for engineering students. Thus, students could get acquainted with the terminology that is essential for their discipline. In addition, the texts in the manuals used in EED courses should be supported with clear and plentiful illustrations.

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¹ For further information on ergonomics and biomedical engineering curricula, refer for, example, to Lithgow's (2012) comparative review "Biomedical Engineering Curriculum."

Katja Dobrić*

Creating medical terminology: from Latin and Greek influence to the influence of English as the current *lingua franca* of medical communication

ABSTRACT

The language of medicine is a broad research field, so broad that there ought to be a special field of linguistics called medical linguistics. Its development, especially the development of medical terminology, is interesting both to medical historians and to linguists.

Hippocratic writings dating from the 5th and the 4th century BC contain many medical terms which were the foundation of the language of medicine in the Greek era. At the beginning of the first century AD Greek medical terminology was latinized and *stomachos* (gr.) turned into *stomachus* (Latin). This started the era of medical Latin. This Latin still contained numerous Greek terms, which resulted in a mixture of Latin and Greek terms and prefixes and suffixes thereof.

In the past medical terminology was borrowed from Greek and Latin but, today, with English becoming the language of international medical conferences, medical terms are often composed of words borrowed from English e.g. *bypass* or *screening*, these being terms accepted both in German and Croatian. The latter, however, tends to use the Croatian equivalents for the above mentioned terms.

Two attempts will be emphasized in this paper in order to illustrate the methods used in importing and creating new terms for medical concepts. The status of Greek and Latin medical terms in national languages will be briefly outlined. Special emphasis will be put on English terms in both German and Croatian languages of medicine.

Key words: borrowing, Croatian, English, German, Latin and Greek words, medical terminology, terminological principles

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1. Hippocratic writings and their influence on medical terminology

Hippocratic writings from 5th and 4th centuries BC are the oldest written sources of western medicine and they represent the starting point of the Greek era of the language of medicine. One would have thought that after the Roman conquest the medical Greek would have been replaced by Latin. However, since the Romans had no similar tradition and since most of the doctors in the Roman Empire were Greek, they imported the Greek medicine. The result of this medical Greek era is a vast number of terms of Greek origin in national medical languages nowadays. There are numerous names of diseases and symptoms in English such as *diarrhoea* (through-flow), *dyspnoea* (bad breathing) and *podagra* (a foot trap). The terms *Podagra* and *Dyspnoe* are used in German as well. Beside the term *Diarrhoea*, however, the German language also offers the naturalized term *Diarrhöe*. *Diarrhea* exists in English as well, however, only in the American English.¹

2. Celsus' translation of medical records and its influence on medical terminology

At the beginning of the first century AD a Roman aristocrat named Aulus Cornelius Celsus wrote *De Medicina*, an overview of medical knowledge based on Greek sources. Celsus had great difficulty with translating medical records, since most Greek medical terms had no Latin equivalents. Therefore, he explained the symptoms of a disease in Latin and used the original Greek term, written with Greek letters in his Latin text:

"Tum sique inbecillitas oritur, proximum est, ut infantes tenerosque adhuc pueros serpentia ulcera oris, quae ἄφθας Graeci nominant, vomitus, nocturnae vigiliae, auriumumor, circa umbilicum inflammationes exercent. Propriae etiam dentientium gingivarum exulcerationes, febriculae, interdum nervorum distentiones, alvi deiectiones; maximeque caninis dentibus orientibus male habent; quae pericula plenissimi cuiusque sunt, et cui maxime venter adstrictus est."²

"English translation by W.G. Spencer published in 1938: "At these periods should any indisposition arise, it is very probable that infants and children still of tender age should suffer from the creeping ulcerations of the mouth which the Greeks call **aphthas**,vomiting, insomnia, discharges from the ear, and inflammations about the

¹ *Englesko-hrvatski medicinski rječnik*, Školska knjiga, Zagreb, 2005, p. 149

² http://penelope.uchicago.edu/Thayer/L/Roman/Texts/Celsus/2*.html, (27 April 2012)

navel. Especially in those teething there arise ulcerations of the gums, slight fevers, sometimes spasms, diarrhoea; and they suffer as the canine teeth in particular are growing up; the most well-nourished children, and those constipated, are especially in danger." ³

The result of this Celsus' way of introducing medical terms is a mixture of Latin and Greek medical terms and of suffixes and prefixes thereof in national languages of medicine nowadays. Greek roots are sometimes used rather than Latin ones because they offer more possibilities with coining new words, especially compounds. Therefore the terms *nephrectomy* and *erythrocyte* in English and *Nephrektomie* and *Erythrozyt* in German were introduced rather than their Latin equivalents *excisio renis* and *cellula rubra*. This is the case with the use of prefixes and suffixes as well. The Greek prefix *hyper-* and its Latin equivalent *super-* both convey the meaning of "extremely; more or better than normal"⁴. Although it would be correct to say *supertension* since the word *tension* was derived from the Latin verb *tendere*, we say *hypertension*, because the Greek prefix has become more productive than the Latin one, thus creating a Greek-Latin hybrid word. The Germans are more precise regarding this example. They use the prefix *Hyper-* but they attached it to the stem *-tonie* which is derived from the word *Tonus* (gr. *τονος*)⁵, thus creating a more precise composite word.

3. Paracelsus' attempt of creating medical terminology of a national language

Another significant development for the language of medicine took place in the Renaissance, a cultural movement, that brought rebirth and renewal in all fields. Paracelsus, whose name implies that he is equal or even greater than Celsus, is the one who brought renewal to the field of medicine. Apart from discovering new diseases and taking an approach different than those before him⁶ he created a new medical terminology in German, a language capable of developing and changing. He revolutionized the study of diseases by creating a bunch of new words through meaning change, derivation and compounds. He introduced new diseases taking into ac-

³ http://penelope.uchicago.edu/Thayer/E/Roman/Texts/Celsus/2*.html (27 April 2012)

⁴ *Oxford Advanced Learner's Dictionary of Current English*, Sixth Edition, Oxford University Press, New York, 2000, p.

⁵ *DUDEN Wörterbuch medizinischer Fachbegriffe*, DUDEN Bibliographisches Institut GmbH, Mannheim, 2012, p.771

⁶ The Galenists argued that a disease of certain quality and magnitude would be cured by a medicine of opposed quality and magnitude. The Paracelsians, on the other hand, argued that a poison in the body might be cured by a similar poison; see *Paracelsus, Five Hundred Years: Three American Exhibits*, Friends of The National Library of Medicine, Bethesda, Maryland, 1993, p. 8

count the place from which diseases originated e.g. *Franzosen* (syphilis). He also introduced terms for other sexually transmitted diseases such as *schlier* referring to both *ulcus molle* (soft chancre) and *ulcus durum* (hard chancre). He named the diseases regarding their occurrence e.g. *monatkrankheit* (menstruation) or regarding the situation in which the disease was brought on e.g. *bergsucht*⁷ (miners occupational disease). Topography-based naming is the most important procedure followed by Paracelsus in giving names to diseases and symptoms e.g. *haupte* (headache), since it originates in the *haupte* (Kopf; head) and *halswe* (sore throat), since it originates in the *hals* (throat). Modern German uses the term *Halsweh*, whereas the term *haupte* had been modified into *Kopfe*. Paracelsus' German medical terminology encompasses more than 3000 terms and expressions from all fields of medicine. Nevertheless, his influence on the medical nomenclature is not big. The language of medicine refuses to replace Latin terms with terms from national languages. However, thanks to Paracelsus, the international chemistry nomenclature still comprises the term *Alkohol* and uses it in compounds and derivations. The term *Zink*, originating from "Bergmannsdeutsch"⁸, is nowadays present in medical terminology of all national languages.

There remains a fact that Paracelsus was apparently way ahead of his time, since his attempts to use a national language as the language of medicine had failed. Latin and Greek remained languages of medicine up to the 19th century when national medical languages started to gain on importance.

4. English as the current *lingua franca* of medical communication and the consequences thereof

Nowadays the most influential medical journals are written in English and the result of this is that medical doctors choose English as the language of international communication. In the past medical terms were derived from Latin or Greek and today with English being the *lingua franca* of medical communication, apart from Greek and Latin terms, there are terms composed of words borrowed from English e.g. *Koronararterien-Bypass* or *Screening* and there are hybrid compounds, consisting of a Greek or Latin prefix or suffix and an English root e.g. *Biofeedback*. Doctors have

⁷ The term *bergsucht* (pneumoconiosis) is considered to be one of the first terms that refer to occupational diseases. Nowadays we come across the term *Managerkrankheit*, an occupational disease characteristic for the time we live in.

⁸ Karl-Heinz Weimann, "Mundart und Neuschöpfung in den Krankheitsnamen des Paracelsus", *Zeitschrift für Mundartforschung* (2/1953), p. 82

the choice between importing these terms directly into their own languages as Celsus did with Greek terms or translating them as Paracelsus did with German.

These two tendencies of creating national terms for medical concepts on one hand and using English terms to be more close to the medical international community on the other create a great number of synonyms in the language of medicine. One should use one term consistently since "the economy of expression is an important feature of scientific language"⁹. The avoidance of synonyms in the language of medicine is also one of "universal, generally accepted and well-known terminological principles"¹⁰ that help in the creation of new terms for new concepts or for the translation of terms from other languages. Although terminologists suggest principles according to which one could form medical terms in national languages, they are often not obeyed by the medical practice.

4.1. Using English medical terminology in a national language vs using medical terminology from a national language

The term *screening* is defined as "the process of testing large numbers of people to see if any of them have a particular type of disease"¹¹ Both German and Croatian use the English term, although they also offer the terms from their national languages i.e. German term *Vorfelddiagnostik* and Croatian term *probir*. The authors W.Frank, B.Konta and C. Peters-Engl gave their paper the title *PAP-Test zum Screening auf Zervixkarzinom*¹², although there is the German equivalent for the term *screening*. In their paper they also use the compounds *Screeningprogramme* and *Screeningmaßnahmen*, which suggests that authors sometimes prefer the use of English terms since it is easier to make compounds and since they can make themselves more understandable to the international medical community. Croatian terminologists also suggest the use of a descriptive term *biološka povratna veza* for the hybrid compound *Biofeedback*. In language use, however, the term *Biofeedback* is still *Ist-Norm*¹³, as the full name of the Croatian clinic Mens Sana as "ordinacija za

⁹ Lidija Štefić, Branka Krauth, Darija Omrčen, "Istoznačnice u stručnom jeziku medicine, stomatologije i kineziologije", *Hrvatski športskomedicinski Vjesnik*, 2005, p. 125

¹⁰ Lana Hudeček, Milica Mihaljević, "Načela normiranja hrvatskih naziva s primjerima iz medicinskog nazivlja", in: Nina Ledinek, Mojca Žagar Karer, Marjeta Humar (ed.) *Terminologija in sodobna terminografija*, Inštitut za slovenski jezik Frana Ramovša ZRC SAZU, Ljubljana, 2009, p. 97

¹¹ *Englesko-hrvatski medicinski rječnik*, p. 505

¹² W.Frank, B.Konta and C. Peters-Engl, "PAP-Test zum Screening auf Zervixkarzinom", *Elektronische Zeitschrift der Deutschen Agentur für Health Technology Assessment des Deutschen Instituts für Medizinische Dokumentation und Information*, (1/2005), title page

¹³ Eugen Wüster, *Einführung in die allgemeine Terminologielehre und terminologische Lexikographie*, International Information Centre for Terminology, Springer Verlag, Wien/New York, 1985, p. 2

psihološke tretmane, biofeedback i psihosomatiku"¹⁴ suggests. This example shows that although domestic terms should be preferred before the foreign ones, often the foreign one is used. Croatian term *granični poremećaj* is recommended instead of the foreign term *borderline poremećaj*. *DUDEN Wörterbuch medizinischer Fachbegriffe* on the other hand recommends the use of the foreign term *Borderline-Persönlichkeitsstörung*. The journal *SPIEGEL ONLINE* gives the definition of the term: "Die "Borderline"- ("Grenzlinie"-) Störung heißt so, weil sie früher in den Grenzbereich zwischen neurotischen und psychotischen Störungen eingeordnet wurde - denn Symptome aus beiden Bereichen treten auf."¹⁵ This definition suggests that the term *Grenzliniepersönlichkeitsstörung* is interchangeable with the term *Borderline-Persönlichkeitsstörung*. This is only one isolated example since the medical profession prefers the English term, which is why one of the departments in ASKLEPIOS Klinik Nord in Hamburg is called *Station O52A – Beziehungszentrierte Psychodynamische Borderline-Therapie*.¹⁶

The term *bypass* has its equivalent *premosnica* in Croatian. In German the term *Bypass* is used, although it could be translated into German the same way as it was translated into Croatian (*Überbrückung*). This suggestion can be supported by the definition from *DUDEN Wörterbuch medizinischer Fachbegriffe*, which explains that *Bypass* is "*Überbrückung eines krankhaft veränderten Blutgefäßabschnittes durch Einpflanzung eines Stückes einer Vene oder Arterie oder eines Kunstsstoffschlauchs*."¹⁷ The term *bypass*, however is sometimes replaced in compounds by some other words from general German e.g. *Herz-Lungen-Maschine* as the equivalent for the English term *cardiopulmonary bypass*.

The term *coeliac disease* in English is sometimes also referred to as *coeliac sprue* and the term *Sprue* exists in German as well e.g. *einheimische Sprue*¹⁸. One should always use Greek or Latin term (if there is one) rather than the ones from English, French or other national languages. Although today more and more words tend to be derived from indigenous languages the internationalisms of Latin and Greek origin are not to be avoided, since Latin medical terminology is still used when there is a need for clear medical communication.

¹⁴ www.menssana.hr (11 September 2012)

¹⁵ <http://www.spiegel.de/wissenschaft/mensch/0,1518,715132,00.html> (27 April 2012)

¹⁶ www.asklepios.com (27 April 2012)

¹⁷ *DUDEN Wörterbuch medizinischer Fachbegriffe*, p.180

¹⁸ *DUDEN Wörterbuch medizinischer Fachbegriffe*, p. 729

4.2. Structural and meaning inconsistencies in using English medical terminology

Sometimes there are inconsistencies with English medical terms in national languages of medicine. In German the English term *RNA* and the German term *RNS* are both feminine, thus having the article *die*.¹⁹ This is justified with the term *RNS*, since the letter *S* in the acronym stands for *Säure*, the noun of feminine gender in German. However, the letter *A* in the acronym *RNA* stands for *acid*, and the noun *Azid* in German is neutral, thus having the article *das*.²⁰ Therefore, it would be more correct to use the neutral article *das* when referring to the noun *RNA*.

Terms consisting of personal names e.g. *Marfan syndrome* or *Ehler-Danlos syndrome* are mostly written with a hyphen in German e.g. *Marfan-Syndrom* and *Ehler-Danlos-Syndrom*. This principle of writing compounds consisting of personal names in German with a hyphen is also applied to deverbalized nouns. e.g. *Turn-over*. The word *turnover* in English is a noun and it is referred to as a noun in German as well:

Turn-over m od. s;-s: die stoffwechselfähige Umsetzung eines Stoffs im Körper²¹

This noun was formed in German according to the Anglo-American model in which there is a tendency of writing deverbalized nouns with a hyphen e.g. *sit-in*. According to this example this rule is in German applied to all English deverbalized nouns regardless the original procedure of word formation applied in English e.g. *turnover*.

Croatian terminologists Hudeček and Mihaljević suggest the use of shorter term if the longer one is too metaphoric. Therefore they suggest the usage of the term *mikropsija* instead of the term *sindrom Alise u zemlji čudesas*. The term *sindrom Alise u zemlji čudesas*, however, has a more wider meaning than *mikropsija* since it is defined as:

"...the presence of visual rather than somesthetic perceptual disturbances, e.g. metamorphopsia and/or visual hallucinations, but this change and broadening of Todd's definition of the AIWS turns it to a both scientifically and clinically useless concept."²²

Thus, if one wants to replace the longer metaphoric term with the shorter one, it is better to use the term *metamorphopsia* or in Croatian *metamorfopsija* since it encompasses both micropsia and macropsia:

¹⁹ DUDEN Deutsches Universalwörterbuch, Bibliographisches Institut & F.A.Brockhaus AG, Mannheim, 2003, 5. Auflage, p.1318

²⁰ <http://www.duden.de/rechtschreibung/Azid> (27 April 2012)

²¹ DUDEN Wörterbuch medizinischer Fachbegriffe, p. 790

²² <http://www.diskussionszentrum.com/downloads/alice--im--wunderland--syndrom.pdf> (11 September 2012)

metamorphopsia An anomaly of visual perception in which objects appear distorted in shape or of different size or in a different location than the actual object. It may be due to a displacement of the visual receptors as a result of inflammation, tumour or retinal detachment, it can be of central origin (e.g. migraine, drug intoxication, neurosis or brain injury), or it can be induced by recently prescribed myopic correction (e.g. micropsia) or presbyopic correction (e.g. macropsia), etc. Metamorphopsia can be detected with an Amsler chart.²³

In German this term is referred to as *Alice-im-Wunderland-Syndrom*. In English it is also referred to as *Todd's syndrome*, which could also be the alternative term in Croatian e.g. *Toddov sindrom*.

5. Concluding remarks

The above examples illustrate the state of the language of medicine nowadays. In the past Greek and Latin were the languages that were characteristic of the language of medicine. Today apart from words of Greek and Latin origin, there are words imported from national languages. And as medicine develops there are more and more new medical concepts that are to be named. If the concept is new and not yet employed in the target language one can either leave such terms in the original language in a translated text as Celsus did or create a new term according to "the linguistic exigencies of the target language"²⁴ as Paracelsus did.

Croatian language tends to be too puristic regarding the usage of English terms and sometimes Croatian terminologists go too far by applying *Soll-Normen*²⁵ thus provoking the loss of equivalence. German, on the other hand, tends to be more open to the English terms as the great number of English terms listed in the *DUDEN Wörterbuch medizinischer Fachbegriffe* suggests. This is also supported by the fact that in 2007 80% of all references listed in the medical journal *Deutsches Ärzteblatt* were English sources.²⁶

Although Paracelsus offered a variety of principles that can be applied to the formation of new medical terms in German one could say that Celsus' principle of keeping the original medical term in the target text is more often applied in German than the principle developed by his successor. In Croatian, however, there seems to

²³ <http://medical-dictionary.thefreedictionary.com/metamorphopsia> (28 September 2012)

²⁴ Wayne D. Cole, "Terminology: Principles and Methods", *Computers and Translation*, (2/1987), p. 83

²⁵ Eugen Wüster, *Einführung in die allgemeine Terminologielehre und terminologische Lexikographie*, International Information Centre for Terminology, Springer Verlag, Wien/New York, 1985, p. 2

²⁶ Christopher Baethge, "Die Sprachen der Medizin", *Deutsches Ärzteblatt*, (3/2008), p. 37

be a tendency towards Paracelsus' principle. There remains a question if it is more important to standardize the medical terminology of national languages or if it is more important to be more understandable to the international medical community, the voice of which is English and as such it has "growing intranational and international currency in medical communication"²⁷.

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²⁷ John Maher, "The development of English as an International Language of Medicine", *Applied Linguistics* (7/1986, p.206

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Dejan Donev*

Etički aspekti suvremenog modela odnosa liječnik – bolesnik

SAŽETAK:

Posjedujući znanje na temelju kojeg se može dijagnosticirati, a potom i pripisati lijek koji će pobijediti bolest, liječnik u prošlosti, ali i liječnik današnjice, dobio je, ako ne "božansku", onda zasigurno paternalističku ulogu.

U suvremenom društvu, koje ima mogućnost pluralističke kontrole i djelovanja, obrazac liječnik - bolesnik bitno se mijenja, tražeći da se poštuje individualnost bolesnika, njegova sposobnost da odlučuje za sebe, ali i prava liječnika.

Autor u tekstu razmatra etičke aspekte suvremenog modela odnosa liječnik - bolesnik, njihovo međusobno poštovanje, ne samo fizičkog nego i moralnog integriteta, dostojanstvo osobe, savjesti i pravo na poziv savjesti.

Ključne riječi: paternalistički model, ugovorni model, model vrlog liječnika, bolesnik.

Uvod

Izučavanje medicinskog "zanata" ne označava samo onaj period studiranja koji traje određeni broj godina, kao i prakse u institucionalnom obliku, tj. stjecanje znanja o bolestima, njihova dijagnoza i principi liječenja, nego ovaj "medicinski trening" obuhvaća i daljnje dublje proučavanje i istraživanje, a posebice prenošenje stavova i vještina koje sama profesija nudi dugo vremena unatrag, mijenjano u suptilnim nijansama koje stariji kolege prenose mlađim. Kao što navodi Pop Jordanova, "svi ovi

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stavovi mogu se opisati kao stjecanje lijekovite moći (moć osiguravanja ozdravljenja)".¹

Štoviše, od samih početaka medicine, svatko mora naučiti nositi se i s osjećajem odgovornosti pri susretu s ljudskom tijelom, živim ili mrtvim, s bolom, patnjom, mutilacijom što ostaje kao posljedica određenih bolesti, invalidnošću itd. Drugim riječima, posjedovati ovu lijekovitu moć znači pokazati empatiju i emocionalnu zrelost, poštovanje prema individualnosti svakog bolesnika, kako bi se mogao postići pravi cilj medicine - zdravlje bolesnika, koje je istodobno nužno ostvariti na osnovi fundiranog kvantuma znanja i uvježbavanja iz područja profesionalne etike medicine, tj. medicinske deontologije.

Radi se, naime, o "medicinskoj etici kao znanosti koja sustavno proučava i određuje prava i dužnosti liječnika i bolesnika, zdravstvenih djelatnika i ustanova, pojedinih udruga i društva u cjelini"², koja jest "jedna od vrsta posebne etike koja primjenjuje opća etičko-moralna načela ljudskog djelovanja na području medicine: zdravlja i bolesti, života i smrti"³.

Unutar nje, jedan od najbitnijih pojmova i određenja, koji je istodobno i esencijalan, jest pojam "liječničke etike", tj. "deontologije". Posjedujući znanje na osnovi kojeg se može postaviti dijagnoza i potom izdati lijek koji će pobijediti samu bolest, liječnik je i u prošlosti i danas imao, ako ne "božanstvenu", onda zasigurno paternalističku ulogu izraženu kroz stav "liječnik zna najbolje"! No danas se taj stav mijenja ili se teži promijeniti, suglasno neoliberalističkoj koncepciji i razumijevanju nastojanja održivog menadžmenta u medicinskim ustanovama, a preko toga, posredno ili neposredno, i u medicini.

U oceanu tih novih situacija i dilema, presudne su i važne relacije koje ima sam liječnik, tj. odnos zdravstveni djelatnik - bolesnik - društvo, a posebice odnos liječnika i bolesnika⁴, kao esencijalna strana postojanja i opravdanje ove profesije.

¹ Нада Поп Јорданова, *Медицинска етика*, Култура, Скопје, 2003, стр. 27.

² Valentin Pozaić, "Medicinska etika", u *Etika - priručnik jedne discipline*, I. Čehok, I. Koprek (ur.), Školska knjiga, Zagreb, 1996, str. 165.

³ Ibid.

⁴ Uzimajući u obzir moguća beskonačna zaplitanja u velik broj klasifikacija i nabrojanja različitih vrsta relacija liječnik - bolesnik i komunikacije unutar istih, tj. komunikacijskih razina odnosa liječnik - bolesnik, ovdje ćemo se fokusirati samo na tri modela ovog odnosa, tj. obrasca razumijevanja lika liječnika, koje navodi Valentin Pozaić ("Medicinska etika", u *Etika - priručnik jedne discipline*, str. 165-169.)

Mogući modeli odnosa liječnik - bolesnik

Rastom fundusa znanja, količine i kvalitete informacija, ali i moguće zlorabe i pogreške ili nemarnog odnosa, mijenjaju se i perspektive percipiranja medicine kao "božanstvene" profesije koja ima ljekovitu moć. Sama tehnološka postignuća u cijelom svijetu dovela su do velike promjene u načinu života i u društvu, a time i u medicini, u čijoj je praksi još uvijek na snazi pravilo da je liječnik izgubio svoj identitet onoliko koliko i medicina kao znanost, a liječnik u njoj istraživač - znanstvenik. Ovo sasvim dovoljno govori da je svojevremeno početni originalni liječnički identitet i u današnje vrijeme više nego potreban u praksi, kako bi se očuvala primarna liječnička zadaća, posebice u odnosu s bolesnikom. Ali koliko je to moguće upravo u ovom trenutku?!

Naime, u suvremenom društvu, obilježenom mogućnošću pluralističke kontrole i djelovanja, i sam model relacije liječnik - bolesnik se, kao najvažniji dio praktičnog posla, koji je od korijenskog značaja u dijagnostici i tretiranju same bolesti - u medicini bitno mijenja od klasičnog ka ugovornom modelu, tražeći ispod plašta inkluzivnosti bolesnika u samom procesu njegova liječenja, kako bi se poštovala njegova individualnost, sposobnost da odlučuje sam o sebi, ali i prava liječnika i bolesnika⁵. Naime, ovim je konačno, i na interesu i na važnosti, dobilo drugo načelo medicinske etike⁶, koje proizlazi i u skladu je s Hipokratovom zakletvom koja kaže: Volja bolesnika jest vrhovni zakon! (*Voluntas aegroti suprema lex!*) Taj vrhovni zakon odnosi se na liječenje, pa bolesnik ima pravo tražiti, prihvatiti ili odbaciti mogućnost liječenja, čime se garantira moralna autonomnost svakog pojedinačnog čovjeka.

Time se i sam model odnosa liječnik - bolesnik mijenja; od *paternalističkog modela*, gdje liječnik zna najbolje što je dobro i korisno za bolesnika i time odlučuje, dok bolesnik prihvaća odluku bez prigovora, tj. modela odnosa otac - dijete preslikanog u medicini, do *ugovornog modela*, gdje bolesnik sudjeluje u donošenju odluka i primjeni terapija, ali se razina odnosa mijenja iz osobne ka pravnoj razini. Time korist bolesnika više nema prednost, nego njegova volja, individualna autonomija, i to neovisno o objektivnim vrijednostima i moralnim načelima, pa tako liječnik više nije čovjek kojem ćemo pokloniti potpuno povjerenje, jer je koncept medicinske njege promijenjen, a sam odnos liječnik - bolesnik odvija se po uzoru na društvene ugovore.

⁵ S obzirom na sve češće napuštanje klasičnog odnosa *liječnik - bolesnik* "jedan na jedan", koje je posljedica razvoja medicinske tehnologije, ali i same strukture medicinskih ustanova, neki autori, kao što su Keller, Allert, Baitsch, Sponholz i dr., razmatraju i mogućnost trajnog napuštanja analiziranja modela odnosa liječnik - bolesnik - "jedan na jedan". (F. Keller, G. Allert, H. Baitsch, G. Sponholz, "Discourse ethics in practical medicine", *Medical Humanities*, 2006; 32: 99-103.)

⁶ Prvo, u skladu s Hipokratovom zakletvu, glasi: Ne nanosi štetu! (*Nil nocere!*)

U kontekstu prethodnog, traži se i promjena samog termina "bolesnik (pacijent)" u "klijent", tj. "primalac usluga", a u nekim slučajevima čak i termin "konzument", zato što se, umjesto da liječnik odlučuje za svog bolesnika, ostavlja bolesniku samo-me da izabere što je najbolje, i tako odgovorno sudjeluje u procesu liječenja. Ipak, ova terminološka igra nije u potpunosti ispravna i vuče sa sobom određene probleme, zato što termin "bolesnik (pacijent)" ipak označuje osobu koja je pod zaštitom, patronatom, tj. označuje onoga koji strada i ima potrebu za medicinskom pomoći i njegom, nasuprot terminu "konzument", koji ignorira ranjivost bolesnog, koji nije u stanju cjenjkati se ili pogađati. Štoviše, kao što je već spomenuto, to zahtijeva i promjenu same strukture medicinske njege, koja sad postaje djelo u nizu postupaka različitih specijalista, pa tradicionalna privatnost, obaveza i pravo na tajnu, polako sve više nestaju: bolesnik više ne ide kod svog liječnika, tj. jednog liječnika, nego obilazi čitav slijed bolničkog osoblja, koje više ne vidi bolesnika, nego njegovu bolest, ili čak samo jedan dio, jednu perspektivu njegove bolesti!

Postavljajući nove etičke dileme u odnosu na pogodnosti suvremene tehnologije i dodatno liječenje, tj. dileme i pitanja društvene pravednosti i solidarnosti, spomenuto mijenja i odnose i vrijednosti i medicinu sjenča dehumanizacijom! Posljedično slabi osobni odnos liječnik - bolesnik, a sam liječnik više nije medicinski i moralno osposobljen za svoj posao u onoj mjeri u kojoj je to prije bio. "Danas pojedinac, liječnik, zdravstveni radnik ne uspijeva odgovorite silnim zahtjevima: znanstvenim i moralnim. Osnivaju se etički komiteti, komisije, odbori..."⁷, koji bar kod nas, na Balkanu, kako potvrđuje praksa, idu još uvijek u skladu s motom: Ako želite da se neki posao nikad ne završi kako treba, onda osnujte komisiju ili komitete ili odbore!

Etički aspekti suvremenog modela

Dosad navedeno dovodi do zaključka da je velik napredak znanosti i znanstvenih spoznaja u tehnologiji, te primjena u medicini, izazvao brojne etičke dileme, od rođenja, pa do smrti, tj. sama su tehnološka postignuća, posebice u medicini, donijela brojna pitanja koja po svom karakteru nadmašuju granice medicine i postaju problem znanosti, čiji djelokrug istraživanja jest sam čovjek i njegov vlastiti odnos prema sebi samom. Kako kaže profesorica Gosić, "procjenu onoga što se čini i postiže u medicini počelo je pratiti upozorenje da se znanstveno-tehnološka postignuća primjenjuju na bolesnog čovjeka te da, istovremeno, budući napredak medicine ovisi o odnosu njenih znanstvenika i djelatnika prema bolesnim ljudima"⁸. To i nije ništa

⁷ Valentin Pozaić, "Medicinska etika", u *Etika - priručnik jedne discipline*, str. 168.

⁸ Nada Gosić, "Bioetika i kultura dijaloga u medicini", u zborniku *Integrativna bioetika i izazovi suvremene civilizacije*, Velimir Valjan (ur.), Bioetičko društvo u BiH, Sarajevo, 2007, str. 168.

drugo nego nastajanje znanstvenog područja koje je počelo istraživati, proučavati, te etički analizirati i vrednovati ono što je tehnički izvedivo u medicini. To bi značilo da se time što je sama (bio)etika interdisciplinarna, "postignutom interdisciplinarnošću otvara prostor za kulturu dijaloga između liječnika i bolesnika i između medicinskih znanstvenika i djelatnika sa znanstvenicima i djelatnicima humanističkih određenja"⁹. Naime, "uvidjelo se da stvaranje pravila u odnosu između liječnika i bolesnika ne može biti isključivo u nadležnosti medicine"¹⁰.

Drugim riječima, time što su se otvorila ova nova etičko-moralna pitanja, koja, usput rečeno, ne nastaju samo zbog novih znanstvenih i tehničkih dostignuća ili novih struktura u medicinskoj njezi, nego i zbog drugačijeg razumijevanja komuniciranja u relaciji liječnik - bolesnik, ističe se ideja da moramo razmotriti nove (bio) etičke dileme i aspekte koji su se pojavili u *suvremenom modelu* (engl. *contract* - ugovor) relacije liječnik - bolesnik u odnosu na njihovo uzajamno poštovanje ne samo fizičkog, nego i moralnog integriteta, dostojanstvo osobe, savjest i pravo pozivanje na savjest. Naime, moramo ga usporediti s *klasičnim modelom* ("*jedan na jedan*") i pokušati ponuditi jedan unaprijeđeni model, jer to nalaže humanistički aspekt profesije kao usađena želja da pomognemo onima kojima pomoć treba. Radi se, naime, o sljedećim kategorijama/načelima kroz koje komparacije i znatne promjene relacije liječnik - bolesnik trebaju proći¹¹:

informacija

U paternalističkom modelu liječnik gotovo uvijek poduzima dodatne mjere u odnosu na potvrđivanje informacije, čime su poštovanje i istinitost zanemareni kao pravila. Što se tiče suvremenog svijeta informacije i tehnologije, danas svako može vrlo lako i jednostavno pronaći informaciju na internetskim stranicama, čime ovakva informiranost bolesnika za određeni broj liječnika jest alarmantna i ugrožava njihov "božanski" autoritet. Bolesnik uvijek ima pravo dobiti pravu informaciju o vlastitom stanju i mogućim opcijama liječenja, tj. bolesnik se ne stavlja više u regresivnu ulogu. Koliko će detaljnija biti informacija, ovisi o prirodi stanja, kompleksnosti tretmana, rizika koji će

⁹ Op. cit., str. 167.

¹⁰ Aleksandra Frković, *Medicina i bioetika*, Pergamena, Zagreb, 2010, str. 10.

¹¹ Naime, kako navodi T. L. Beauchamp u svom članku "Načela u bioetici", *Društvena istraživanja*, 23-24: 533-534., postoje četiri skupine načela/kategorija i to: 1) poštovanje autonomnosti; 2) neškodljivost; 3) dobročinstvo; 4) pravednost, kao četiri temeljne kategorije okvirnih moralnih okosnica, koje proizlaze iz profesionalnih uloga i tradicije. Kasnije, nakon 1996., Beauchamp zajedno s Childressom 2001. navodi i peto načelo - očuvanje profesionalnog odnosa, koje je posebno važno u odnosu liječnik - bolesnik. (T. L. Beauchamp, J. Childress, *Principles of biomedical ethics*, Oxford University Press, New York, 2011). Naravno, u naporima diferenciranja osnovnih načela/kategorija koje su bitne u odnosu liječnik – bolesnik mogu se spomenuti još i načela C. M. Plambecka (autonomija, dobročinstvo, neškodljivost i pravednost), kao i načela Rutha Putiloa (autonomija, dobročinstvo, neškodljivost, pravednost, poštovanje osobe i istinoljubivost).

uslijediti, kao i želji samog bolesnika. Naime, važno je omogućiti bolesniku da sudjeluje u izboru u skladu sa svojim vlastitim vrijednostima, ciljevima ili aspiracijama, bez nastojanja da prihvati liječnike. Ako bolesnik kasnije potraži savjet liječnika, onda ga vodi želja da dobije savjet, ali s etičkog stanovišta, suglasnost sa savjetom liječnika neće osloboditi bolesnika njegove vlastite odgovornosti u odlučivanju¹².

povjerljivost

Sama zdravstvena skrb znači nekakav oblik invazije (upada) u privatnost (pregled nečijeg tijela, informacije koje su intimne, a koje pridonose boljoj dijagnozi i liječenju i sl.). Dobivena informacija, stoga, gledano sa strane bolesnika, može se iskoristiti samo uz njegovu dozvolu, a o samom načinu na koji je to regulirano, tj. povjerljivost podataka kao startna osnova odnosa liječnik - bolesnik, govori i Hipokratova zakletva. Ipak, suvremenost je prepuna moralnih dubioza i etičke kontroverzije. Tako se mijenja i sam odnos liječnika i bolesnika. Pojavile su se strašne bolesti, zlorabe se rezultati biomedicinskih i biotehnoloških inovacija. Otuda se i postavlja pitanje o tome je li svaka informacija koju liječnik ima o bolesniku apsolutno povjerljiva te se o njoj ne smije nikom govoriti? Naime, brojni su slučajevi kada se povjerljivost relativizira i može pridonijeti velikom zlu ili naštetiti drugima. Baš zbog toga smatra se da je kršenje povjerljivosti dopušteno samo ako za cilj ima zaštitu nekog drugog bolesnika¹³.

Prethodno spomenuto govori sasvim dovoljno o problemima i poteškoćama koji se dotiču povjerljivosti u medicinskim odnosima, upravo stoga što je ona u izravnom sukobu s dužnostima prema ostalim bolesnicima i društvu. U svakodnevnoj praksi povjerljivost je pravocrtna i jednosmjerna, kako bi se preko nje osiguralo poštovanje prema bolesniku kao osobi, štitio njegov integritet, a liječnik ostao samo diskretna i senzitivna osoba. U prilog ovome govori i Europska konvencija o ljudskim pravima iz 2000. godine, gdje se pravo privatnosti spominje kao jedno od osnovnih zagarantiranih ljudskih prava. Tako je u suvremenoj elektroničkoj bazi podataka o bolesniku (povijest bolesti, nalazi, dijagnoze) ovo pravo sačuvano kao posebno, tj. sve informacije smatraju se povjerljivima i bez dozvole bolesnika, pri čemu spomenuto uopće ne interferira s kliničkom autonomijom.

istinitost

Jedan od načina kojim se nastoji izbjeći paternalizam, u prošlosti često prisutan u odnosu liječnik - bolesnik, tj. nejednakosti u odnosu u kojemu je bolesnik postavljen u relaciju ovisnosti i vulnerabilnosti. Sama interakcija liječnik - bolesnik mora

¹² Нада Поп Јорданова, *Медицинска етика*, стр. 31.

¹³ Ibid.

imati osobinu iskrenosti koja karakterizira liječnika, ali i bolesnika, s obzirom na moguću manipulaciju podacima koje isti iznosi liječniku. Istinitost, međutim, podrazumijeva nešto više no davanje pravilne, ispravne informacije. Iako spomenuto u suvremeno doba ide teško, u svrhu zaštite bolesnika liječnik će možda posegnuti i za iskrivljavanjem istine, želeći time ponekad dati bolesniku i lažnu nadu ili pokušavajući odgoditi ili zaobići potvrdu malignog oboljenja. Razlog vidimo i u zaštiti bolesnika, gdje mu prema paternalističkom modelu nije baš najbolje priopćiti loše vijesti, čak i onda kada sam bolesnik postavlja direktna pitanja. Promjenom modela odnosa liječnik – bolesnik suvremeni medicinski informiran bolesnik sve češće preferira da mu se istina direktno saopći, nego da živi u obmani, čak i onda kada je ona najgora. I u ovom modelu postoje iznimke u odnosu na kritične faze, ali to su situacije u kojima se ne laže, isto kao što se ne kazuje ni istina. U svim drugim slučajevima istinitost je osnovno pravilo koje treba poštovati u odnosu liječnik - bolesnik.

kolegijalni odnos

U ime bolesnikova dobra, u Hipokratovoj zakletvi piše da su kolege liječnici međusobno poput braće, čime se naglašava nužnost izgradnje i održavanja dobrih odnosa među kolegama kojima je medicina primarni cilj. Kako bi se izbjeglo religiozno Eskulapovo bratstvo, koje se više ne poklapa sa suvremenosti, u Ženevskoj konvenciji kao temeljno načelo propisano je da je zdravlje bolesnika osnovna zadaća liječnika, čime je njegova primarna zadaća sam bolesnik, a ne više njegovi kolege. Ipak, budući da je zdravlje bolesnika primarna zadaća liječnika, najbolji način da se zdravlje sačuva i poboljša je sagledavanje mogućnosti oko dijagnoze i liječenja, zajedno s drugim kolegama, timski, posebice u kompliciranim slučajevima. Otuda je i najbolji način za solidne i zdrave međuodnose zdravstvenih djelatnika poštovanje časne i konstruktivne kritičnosti i podrške, što znači suradnju profesionalaca koji se bave različitim specijalnostima¹⁴. Zaključno valja naglasiti generalni stav kako nas čitava dosadašnja civilizacija uči da obaveze i vrline zdravstvenih djelatnika promatramo najprije kroz profesionalnu predanost zaštititi bolesnika od bolesti, povreda i pružanju medicinske njege, kao i obaveze o neškodljivosti i dobročinstvu. No još više, kako ističe profesorica Frković, "zahvaljujući (bio)etici, načela autonomnosti i pravednosti ukazala su na važne dijelove moralnosti, koji su se u profesionalnoj etici zanemarivali. Kako bi se u zdravstvenoj skrbi što uspješnije mogla provoditi ta temeljna načela, između ostalog potrebna je dobra komunikacija"¹⁵.

¹⁴ Op. cit., str. 36.

¹⁵ Aleksandra Frković, *Medicina i bioetika*, str. 152.

Umjesto zaključka

Upravo sve prethodno navodi nas na pomisao da bismo se zaista djelomice trebali vratiti na osnove klasičnog poimanja liječnika i odnosa liječnik – bolesnik. Trebali bismo preoblikovati unatrag model liječnik - bolesnik, gdje bi sama vizura liječničkog poziva i angažmana bila oplemenjena karakteristikama liječnika, kao čovjeka kreposti, gdje bi se odnos zasnivao na cjelovitom pogledu na ljudski život. To znači isti klasični model obogaćen holističkom i (bio)etičkom razinom razumijevanja života, gdje je "svako ljudsko djelovanje moralni čin, a susret liječnika i bolesnika mora voditi prema zajedničkom cilju, dobru"¹⁶. U potvrdu istog može poslužiti i revolucionarna promjena tumačenja pojma "zdravlja" Svjetske zdravstvene organizacije, čime se objašnjenje zdravlja i bolesti sada definira u konstantnoj recipročnoj međuovisnosti biološko-psihosocijalnih karakteristika čovjeka i ekološko-socijalnih karakteristika sredine u kojoj on živi¹⁷. Radi se o relaciji gdje liječnik mora nužno posjedovati specifične karakteristike duha, kreposti, kao čovjek stečenih jasnih i staloznenih duševnih svojstava usmjerenih na dobro. "To je čovjek urešen znanjem i prožet etikom, koji živi za bolesnika, koji svoju vještinu prakticira iz ljubavi prema čovjeka"¹⁸, što znači da liječnik, osim poznavanja čovjekova tijela i njegove funkcije i fiziologije, mora poznavati i ljudsku dušu i dostojanstvo osobe kao takve. Na tu činjenicu liječnicima je ukazivao još Galen, objašnjavajući razloge zbog kojih uz dužnosti koje proizlaze iz Hipokratove zakletve, trebaju znati i filozofska učenja, kako bi mogli razumjeti prirodu i funkciju ljudskog tijela, kao dijela prirode i fizičkog svijeta, ostavljajući za sobom svojim kolegama priznanje po koje liječnici profesionalnim obrazovanjem ne stječu potvrdu o osobnoj dobroti. Spomenuto proizlazi iz spoznaje da se sve do početka 20. stoljeća o relaciji liječnik - bolesnik ponajviše govorilo kao o relaciji etičkih kategorija, a manje o onim pravnim i legislativnim. Sada se, u današnjem suvremenom društvu, gdje nam se čini da je ovakva relacija posve izgubila na značenju, ona ponovno naglašava zbog neophodnog vraćanja esencijalnim područjima našeg bića, onome što jesmo po svojoj prirodi - moralna bića koja će, više nego što nam se čini, zalutati i pretjerati u svojoj narcisoidnosti i umišljenosti da smo bogovi! U prilog istom govori i saznanje da je današnja medicina, više nego ikada, upoznala i prihvatila holistički pristup u odnosu na čovječanstvo, jer je to nužan preduvjet k većem i boljem uspjehu. Povjerenje se mora vratiti i preuzeti mjesto iz pravne razrješnice u medicinu!

¹⁶ Valentin Pozaić, "Medicinska etika", u *Etika - priručnik jedne discipline*, str. 168.

¹⁷ Карпош Бошковски, *Медицинска етика и деонтологија*, Ѓурѓа, Скопје, 1999, стр.114.

¹⁸ Valentin Pozaić, "Medicinska etika", u *Etika - priručnik jedna discipline*, str. 168.

U ovom kontekstu, spomenuto se mora i najbolje pokazuje i dokazuje u području medicine, jer ona jest i ostaje poziv koji bi trebao biti posvećen svima, a ne samo odabranima i onima koji mogu platiti i priuštiti si liječenje, zvanje koje svi trebaju i kojemu se svi povinuju, a ne skriveno promoviranje obrazovnog elitizma, kao i angažman uzvišenih i zahtjevnih, plemenitih i tegobnih, jer se radi o poštovanju unikatnosti i nepovredljivosti ljudskog života i njegova dostojanstva. Zato, tko ga izabere, mora se obavezati da će se stalno i u što većoj mjeri usavršavati u odnosu na znanje i moral, za trajno zalaganje za unapređenje zdravlja i života čovjeka.

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Dejan Donev

Ethical aspects of the contemporary model of the relation between doctors and patients

ABSTRACT:

Having knowledge on which basis it can diagnose and then prescribe a remedy that would beat the disease, the doctor in the past, and also to this day, it gets if not "divine", then surely paternalistic role.

But in modern society marked by the possibility of a pluralist control and action, the pattern of relation doctor - patient has changed significantly seeking to respect the individuality of the patient, his capacity to decide for itself ... and also the rights of a doctor.

The author in the text examines the ethical aspects of the modern model of the relation "doctor and patient", their mutual respect not only the physical but the moral integrity, dignity of person, conscience and the right to call of conscience.

Key words: paternalistic model, contract model, model of virtue doctor, patient.

Radostina Iglikova*

Let's talk health – the textual efficiency of the discourse of healthcare articles in online women's magazines cosmopolitan (a comparative study)

ABSTRACT

The following article deals with some strategies for enhancing textual efficiency in healthcare articles and is based on a corpus of texts from online women's magazines. Here efficiency is understood in the sense Beaugrande and Dressler suggest, i.e. as a principle which controls textual communication, so that texts are used with "a minimum expenditure of effort by the participants". The object of analysis are articles from three online editions of the *Cosmopolitan* magazine – the American, British and Bulgarian variants respectively. The linguistic and socio-cultural specificities of the different audiences reflected in the choice of topics, their treatment, textual form and structure are of particular interest and are therefore regarded as a crucial part of the underlying context, alongside the role of the nature of the medium itself.

Key words: textual efficiency, media discourse, healthcare articles, women's magazines

1. Introduction

The following article shall acquire a discourse-analytical approach to the study of text as a communicative unit which is "activated" and re-constructed in the process of its utilization. Therefore, it shall be considered more fitting to the analytical task at hand that the selected approach to the analysis deal preeminently with the discourse as a whole instead of providing a narrow, detailed focus upon text as the materialization of the particular discourse. This way attention shall be given as a priori-

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ty to tendencies which concern the actual use of this particular discourse, its context and situation of occurrence, including the participants in the communicative act, and all this with regard to the efficiency of the discourse. Such an approach attempts to bypass the common among linguists (especially those trained in the tradition of the generative and transformational grammar) preoccupation with the construction and testing of various models of text. This study will by no means attempt at devising any such detailed and complex representations and neither will it be dedicated to the application and testing of any of the existing models, such as have been proposed by various and numerous specialists in the linguistic field. Such an abandonment of an obvious course of action for a linguistically-oriented work is informed (along with the complexity and arduousness of the task) by the doubt on the part of the author that such a purely text-linguistic treatment (albeit detailed and intricate) would prove to be enlightening in any substantially original and novel way. The very nature of the problem under scrutiny defies any simplistic, single-view approach, however thorough and precise in terms of linguistic technique it may be. The very nature of human communication in its various aspects (not only linguistic, but also cognitive, social, psychological etc.) and the particular type of "mass-produced", mediated, communicative event is another factor which defies anything short of a multi-faceted look (or more realistically, "glance") at the process of efficient communication of meaning (in the broadest sense).

It logically follows that an approach should correspond to the object of research it is applied to and that, therefore, no method should be imposed from the outside unscrupulously as an exercise in text-linguistic analysis as an end in itself. Instead, there should rather be made a realistic attempt at identifying (what at least appear to be some of the crucial features of the particular discourse) and trying to match the methods of research to those specificities. Thus, both the communicative and social sides of the object of research (a particular discourse) can be encompassed, while at the same time the need to discover the intersection with the subject of the study is kept in mind. This, I shall argue, appears to be an approach which can offer a way of bringing together the various factors which influence the use of texts as communication, which would potentially yield more vivid and multi-dimensional research-analytical results.

2. From textual efficiency to discourse efficiency

The notion of efficiency in linguistics has so far been traditionally explored on a somewhat local and limited textual level which has resulted in its application mainly in connection with the standard of cohesion and the linguistically available cohesive

devices which can promote the efficiency of textual form.¹ Thus the regulative principle of efficiency, understood as "processing the largest amounts with the smallest expenditure of resources"², emerges as an inevitable criterion for assessing the quality of any text when the inherent discrepancy and asymmetry between the discrete elements of surface form and the continuous notions and concepts of underlying content³ are taken into consideration. The instruments which every language provides for "compacting surface expression without damaging the connectivity of underlying knowledge"⁴ ensure that cohesion is upheld in an efficient way which satisfies the requirements of the principles of stability and economy⁵ without compromising the participants' access to the underlying, assumed coherence of the text. This is of course all very well and clear as far as linguistic analysis is concerned but Beaugrande, however, does not seem to be able to provide such neatly organized lists of "devices" to account for the ways in which this regulative principle affects the other six constitutive standards of textuality, apart from cohesion. It hardly seems plausible or even possible that such a basic feature of text in communication, namely the necessity for it to be "easy" in processing terms and thus manageable under the conditions of actualization such as time restrictions, disturbances etc., could rely solely on the capacity of language to compact surface structure.

The efficiency of discourses defined as "socially constructed knowledges of (some aspect of) reality ... developed in specific social contexts and in ways which are appropriate to the interests of social actors in these contexts"⁶ then emerges as a process into which the communicative situation "feeds" (together with past experience) various and numerous clues with which participants are in a dynamic relationship – they provide clues themselves, as well as have the responsibility to employ their communicative competence to decide which clues are relevant and select them as meaningful regarding the ongoing communicative act. As a result of this selection of important clues, certain aspects and elements of the textual side of communication are modified – which can be observed as the way in which discourse efficiency is reflected upon the text through which the particular discourse is actualized.

¹ Robert de Beaugrande, *Text, Discourse and Process*, 1980, <http://www.beaugrande.com/TDPOpening.htm> (31 October 2012)

² Ibid.

³ Romyana Todorova, *Theory and Practice in Text Linguistics*, Konstantin Preslavsky University Press 2000, p.10, 13.

⁴ Robert de Beaugrande, *Text, Discourse and Process*.

⁵ Beaugrande (1980) defines the principle of stability as one which "assigns a high priority to strategies for coordinating surface expressions that share common or contiguous conceptual content" and the economy principle as one which stipulates that "wherever expedient or doubtful, preference should be given to re-using already activated content, rather than activating new content".

⁶ David Machin and Theo van Leeuwen, *Global Media Discourse*, Routledge London and New York, 2007, p. 58, 60.

Beaugrande's views, although at that particular point limited to cohesion, are by no means incompatible with an approach which accentuates the importance of seeing (linguistic) text, alongside other relevant factors of discourse. His own insistence on the importance of preserving "connectivity" features as ground for an attempt on my part to treat the notion of efficiency on a discourse-analytical level by examining here not the strictly linguistic cohesive devices which serve to compact surface form, but also, and more importantly, a number of other aspects of the discourse in question, whose consideration can potentially shed some fresh light upon the ways in which actual communicative situations come to be successful and, what is of interest here, efficient.

3. Case study

Since efficiency as a regulative principle originally presupposes processing with the least amount of effort of the largest possible chunks of information, it would seem interesting to examine which factors in a communicative situation and in what ways enhance the unproblematic processing not of isolated sentences, but of whole texts, and furthermore, groups of texts which coexist within the frame of the same discourse. As such factors emerge, for example, the specificities of the elements of the communicative situation, such as the participants (in terms of culture, language, knowledge, interests, beliefs, intentions, etc.), the medium through which communication occurs (in our case – the electronic medium of the World Wide Web, or Internet in more general terms and the electronic edition of a women's magazine in particular) with its technological specificities, the social and cultural backdrop against which communication takes place, to name but just a few of the most obvious ones.

3.1. *The target audience*

According to the Media Pack of Cosmopolitan magazine⁷ its target audience consists of young women aged between 18 and 34. According to Nielsen Online (2011)⁸ and MRI (Spring 2011)⁹, the demographic profile of the magazine's readership in Bulgaria shows that 55% of the readers are females between 18 and 34, while in the United States the percentage is similar, 58.7%. The majority of those women are working, educated and active, and the main household shoppers. Sano-ma Biasak (the company which presents the magazine on the Bulgarian market)

⁷ Cosmopolitan Magazine Media Kit 2012. <http://www.cosmomediakit.com/r5/home.asp> (31 October 2012)

⁸ Ibid.

⁹ Ibid.

and Hearst Corporation (the owner of Cosmopolitan magazine) both describe their target audience as comprising young, active and mature women, "fun, fearless females who want to be the best they can be in every area of their lives"¹⁰. Sanoma Bliasak¹¹ claim that their goal is to offer to their audience "valuable information" – "unique and interesting articles created by our online editors with high editorial input, daily latest news, useful and valuable information" while the Hearst corporation's editorial section of the Media Pack boast of their "well-rounded editorial content" with a prevalence for relationship articles (29%) followed by fashion and beauty articles (at 18.2% and 14% respectively).

3.2. The medium

Another important aspect of the context of occurrence of these texts is the type of medium through which they reach the reader – in our case with the online editions of the magazine, this is the internet. The specificities of this most modern medium of communication and dissemination of information depend partly upon the hardware requirements and conditions (the reading happens via a screen of sorts, which imposes certain limitations to the surface format of the texts, namely the necessity for them to be divided into smaller chunks, shorter paragraphs and not too long and complex sentences, so that the reader be able to navigate efficiently and not get lost while scrolling down a page or clicking to the next link and losing the previous page from their view).

A very important advantage of online editions is the unlimited access to them, as they are practically free (except for the fee paid to the internet provider) and always only a click away – they provide easy entertainment everywhere and anywhere, numerous options for browsing and skimming through articles until you pick one which attracts your attention as interesting. This abundance of competing stories on competing websites which are all just a click away makes it important for editors to be able to attract and keep the attention of the browsing audience by various (linguistic) means. Articles in online women's magazines are colourful not only in the traditional sense of the word, they are also textually colourful and attractive, which transforms them into a unique text type specific to a particular context and situation of occurrence which has its own characteristic configuration of surface form and underlying textual world, requires the activation of particular knowledge patterns in order to be understood, is characterised by its own uniquely specific dynamics of the relationship between efficiency and effectiveness.

¹⁰ Ibid.

¹¹ Sanoma Bliasak. Саном Блясък 2012. <http://sanoma.bg/bg/sites/cosmopolitanbg.html> (31 October 2012)

3.3. *Socio-cultural context*

The novelty of this discourse and the type of text it involves, along with its pervasiveness in the reality of the present day, determines the vivid interest on the part of sociologists, psychologists, economists and, last but not least, linguists in the workings of this new area. What is more, although this electronic discourse can be considered new and novel for the English-speaking world such as the United States, it is even more so for a country such as Bulgaria, where the language barrier is combined with a cultural one and, in a recent historical sense, a socio-political one, one of political and economic organization. It is still more interesting to observe how and to what extent the Bulgarian language has changed to accommodate the requirements of this new reality, this new discourse, the new medium in a world marked by globalization and international mass media. It is also interesting to observe in what ways and to what extent this international brand, the *Cosmopolitan* magazine, has managed to "localize"¹² its content while preserving its characteristic recognizable format.

In light of the several observations mentioned so far and with regard to the subject of research, the question emerges as to what and how makes the reading of online women's magazines an *effortless* activity? I see the term "effortless" as particularly appropriate here as its definition¹³ entails "requiring or apparently requiring no effort; ... not showing effort or strain" and is synonymous with adjectives like "easy, simple, flowing, smooth, graceful, painless, uncomplicated" as well as "natural, simple, spontaneous, instinctive, intuitive". Thus the notion of "effortlessness" seems to correspond very well to the *Cosmopolitan* magazine objective of providing readers with "unique and interesting articles, (...) useful and valuable information"¹⁴ – effortless browsing is seen as a positive, desirable activity, entailing reading as something easy yet satisfying (and not boring or dull) which involves the pleasure of a kind of fluent, gracious elegance and is representative of a process of uninterrupted enjoyment.

3.4. *Strategies for ensuring efficiency*

One type of strategies for ensuring (or rather gradually building up and establishing) a high level of effortless browsing of the respective websites of the three editions of *Cosmopolitan* forms around the content in terms of choice and treatment of topics while another set of strategies concerns the surface formats in which the selected content appears:

¹² On localization see David Machin and Theo van Leeuwen, *Global Media Discourse*, p. 126.

¹³ <http://www.thefreedictionary.com/effortless> (31 October 2012)

¹⁴ Sanoma Blisak. Санома Блясък 2012. <http://sanoma.bg/bg/sites/cosmopolitanbg.html> (31 October 2012)

3.4.1. Content-based strategies

One such strategy involves featuring a limited selection of topics all of which are considered to be of general (especially) female interest such as love and relationships, health and beauty (including fashion), celebrity news, financial and career advice. Within each general topic, forming a separate section, there are several (also limited in number) sub-topics. In the health sections, for example, there are a limited number of strategically pre-selected health issues or problems which receive attention. Those are, regardless of the edition, mainly issues related to weight loss, fitness and dieting, sexual health (including pregnancy articles in the Bulgarian and the American issues), psychological health (mainly stress and depression related), breast cancer prevention (especially the British edition). It is an interesting fact that the American edition does not have a separate section dedicated to health but has located health articles within a subsection of the "Secrets and Advice" section under the title "Health and Fitness Tips". The British edition, as well, assigns articles on health a place in a subsection entitled "Health" within the section "Body". The Bulgarian counterpart to those two editions, however, not only has a separate section dealing with issues of health (entitled "Д-р Cosmo", "Dr. Cosmo" in English) but also provides a wide range of subsections such as "Всичко за диетите" ("All about Dieting"), "Здравни новини" ("Health news"), "Въпроси и отговори" (Questions and answers), "Сексуално здраве" ("Sexual health"), "Твоето тяло" ("Your body"), "Попитай д-р Cosmo" ("Ask Dr. Cosmo"). The number of articles available on issues of health is also significant and illustrative of the tendencies and traditions in the different cultures and languages pertaining to discussions of health. Thus the American edition features the humble 109 articles as compared to the 139 articles in the British edition. Those two numbers are severely overshadowed by the astonishing 700 articles in the Bulgarian edition (the sum total of the articles in the subsections on dieting, health news, sexual health and body excluding the Q&A subsections). Therefore it seems that the general topic of health in Bulgaria is of much greater concern for the readers than it is (at least appropriate to acknowledge) for those in America and Britain.

Another strategy serving efficiency relies on the employment of simplification and popularization – the use of specialized terminology is kept to a minimum and generally appears in health articles in order to emulate the style of the expert¹⁵ and thus grant reliability to the advice. Once introduced, every term is then explained, paraphrased and re-formulated in layman's terms in order to avoid lack of understanding and to bridge any potential gaps between the background knowledge of the

¹⁵ David Machin and Theo van Leeuwen, *Global Media Discourse*, p. 138.

reader and that necessary for understanding. This way specialized information undergoes a process of intentional simplification and becomes accessible to a wider public. The American edition for example introduces the medical term "melasma" and simultaneously offers a definition and simple explanation for it within the same sentence – "a condition...which causes the skin on your face to change color due to the overproduction of melanin"¹⁶. The British edition uses "melanoma" and in two consecutive sentences describes it as "a deadly skin cancer" which "is caused by sunburn and sunbeds and starts as a mole or freckle"¹⁷. Both editions employ simple language which directly addresses the reader by using the second person singular pronoun to present the medical conditions in question in a manner more easy to understand. The Bulgarian edition also features explanations of the medical terms used, such as for example the definition given to the condition "обсесивно-компулсивно разстройство" (obsessive compulsive disorder) which reads as follows: "ОКР е разстройство свързано с тревожността, характеризира се с недоброволни натрапчиви мисли, които създават тревожност, основана на страха, че нещо лошо ще се случи" ("OCD is a disorder connected with anxiety, it is characterized by involuntary persistent thoughts which create anxiety based on the fear that something bad is going to happen")¹⁸. What is very interesting here is the contrast between the two English explanations and their overall simplicity and the highly complicated style of the Bulgarian text, which resembles that of a medical journal or textbook.

Yet another means of ensuring efficiency is the use of recurrent topics/themes – a typical strategy is the treatment of one and the same topic in a variety of articles, each one of which examines a slightly different aspect of the topic by repeating a set of basic propositions with the inclusion of some variations and additions. This way a group of texts forms around a particular topics as a web. This ensures that the processing of every consecutive article requires less effort on the part of the readers, as their sense of familiarity with the topic itself, as well as with the treatment it receives (according to their previous experience within as well as outside of this "web"), helps them to have better and more correct expectations and to be able to better predict what the text they are currently dealing with is about. This way readers do not have to create a new representation for each new text but only to make the necessary corrections and additions to the already existing representational entry in their memory. In other words, they simply need to update their data base on the particular subject. Thus all three editions of the magazine feature numerous articles

¹⁶ <http://www.cosmopolitan.com/advice/health/weird-pregnancy-symptoms> (31 October 2012)

¹⁷ <http://www.cosmopolitan.co.uk/diet-fitness/health/time-to-ban-sunbeds> (31 October 2012)

¹⁸ <http://www.cosmopolitan.bg/tvoeto-tyalo/trevojni-diagnozi.html> (31 October 2012)

concerning healthy foods and dieting for example, each of which is intertextually and discursively related to the rest of the article on the same topic. Some titles are as follows:

In the US edition¹⁹: "Foods that keep you sexy"; "5 foods you should avoid"; "Diet tricks (that don't involve dieting)";

In the UK edition²⁰: "There's WHAT in my salad? Health professionals warn of hidden sugars in our food"; "Healthy office lunches"; "Healthy office lunches";

In the Bulgarian edition²¹: "5 храни, които да изключиш от менюто си" ("5 foods to exclude from your menu"); "Защо трябва да пиеш прясно мляко" ("Why you should drink milk"); "Цветна диета" ("A colourful diet").

3.4.2. Form-based strategies

A characteristic strategy for amplifying efficiency through form is the use of schematic, repetitive, stable structuring and layout – articles are formatted in an easy to navigate and browse through way. An article is typically introduced by its title plus an introductory sentence – these two elements are all one sees (except the illustrative, non-linguistic material) before clicking on the link and following it to the full text of the article. Thus the title serves as a "teaser" which aims to attract the reader's attention often by creating knowledge deficiencies which the reader would be motivated to fill in. The introductory sentence (or sometimes two short sentences) introduce the main idea(s) of the article. These serve as a short introduction which enhances browsing efficiency – the article being too short to provide enough information on what exactly the article is going to be about and its role being to grasp attention and direct it towards a "trailer" of sorts (the short summary of the main points in the article). This way potential readers do not have to actually follow an article link only based on the title and potentially be disappointed, if it did not turn out to be what they expected – which would be (in the long run) frustrating rather than attractive to the readers. Instead, readers are presented with a short "trailer" (to employ again this term borrowed from films) which informs them of what to expect from the article in a very concise and informal way.

The main body which follows, as a rule, begins with the results from some recent research or study made by specialists, which is further in the article explained and elaborated in the typical for Cosmopolitan knowledgeable but simplified style, at-

¹⁹ <http://www.cosmopolitan.com/advice/health/>, (31 October 2012)

²⁰ <http://www.cosmopolitan.co.uk/archive/diet-fitness/health/24/8/>, (31 October 2012)

²¹ <http://www.cosmopolitan.bg/dr-cosmo/category-tvoeto-tyalo/p1.html>, (31 October 2012)

tempting to inform and advise the readers about problems which are considered serious and important. This way a specific identity is created as a representation of the author or authors of the article – "they" (i.e. the "we" which appears in every article to refer to whoever was involved in the creation of the text, the "Cosmo team") perform various tasks aimed at helping their fellow "fun, fearless female" sisters. Thus "they" transform into "taskmasters", "missionaries", who seemingly spend countless hours consulting "top specialists" from various professions; "they" read the latest research and ask the difficult questions the reader may be too busy having "fun" to ask or perhaps not being too "fearless" to confront by visiting a specialist herself. In most cases the solution takes the neat shape of a limited number of steps to be taken towards overcoming the problem, and the advice is reformulated into a list of "tips" – short and simple but seemingly useful and practical in their offering of an "effortless" way of dealing with some persistent problem of everyday life.

4. Conclusion

The present study has offered some observations on several important specificities of the discourse of online women's magazines regarding the issue of efficiency and utilization ease on a comparative basis. The treatment these topics receive here can by no means be considered exhaustive or conclusive. Instead, it should be viewed more as an attempt at posing questions which are more adequate to a subject of research situated at the intersection of several disciplines such as linguistics, media studies, discourse studies, sociology etc., rather than attempting to offer immediate solutions and thorough analysis. Despite the obvious disadvantages of such a sketchy approach it seems logical that its application for the purposes of the study might yield some fresh information and practical insights from a different perspective into a discourse typically utilized exactly by means of browsing. An attempt has been made to propose a shift of focus from the study and analysis of efficiency as a feature of texts as products of communication, to a notion of efficiency as pertaining to the text as an actualization of discourse and a process – such a shift of paradigm is expected to yield results which would in the end be of more consequence to the study of the actual communication taking place within the discourse of online magazines than a mere preoccupation with detailed linguistic analysis of however lengthy linguistic corpora, undertaken in isolation from their context and situation of occurrence.

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Vida Jeremić*

Informirani pristanak: komunikacija između liječnika i bolesnika

SAŽETAK

Ovaj tekst bavi se pitanjem informiranog pristanka, kao odraza fundamentalne promjene u odnosu *liječnik - bolesnik*. Fokus teksta je *informacija* u informiranom pristanku, koja predstavlja najproblematičniji aspekt informiranog pristanka, jer količina informacija i način na koji će ih liječnik prenijeti bolesniku još uvijek nisu pravno regulirani u većini zemalja, pa ni u Srbiji. U opterećenim zdravstvenim sustavima u kojima liječnik raspolaže vrlo malom količinom vremena po bolesniku, najmanje vremena ostaje za informiranje i razgovor, stoga je neophodno posvetiti pažnju prosvjećivanju i edukaciji i liječnika i bolesnika o značaju razgovora u odnosu *liječnik - bolesnik*, jer se smatra da je upravo razgovor presudno važan element informiranog pristanka. S obzirom na to da zakonodavac Republike Srbije nalaže davanje informacija vezanih isključivo uz bolesnikovo odbijanje medicinske mjere, a da sve ostale informacije koje trebaju služiti bolesnikovu pravu na samoodlučivanje i pristanak prepušta slobodnoj procjeni liječnika, postavlja se pitanje koliko se zaista koncept informiranog pristanka primjenjuje u praksi.

Ključne riječi: informirani pristanak, komunikacija *liječnik - bolesnik*, pravni okvir

Uvod

Koncept informiranog pristanka predstavlja odraz fundamentalne promjene u odnosu *liječnik - bolesnik*, tj. istraživač – subjekt istraživanja, koja se u punom zamaahu razvila u drugoj polovini 20. stoljeća. Iako je tek djelomično našao mjesto u pravnim sustavima razvijenih zemalja, pa i Srbije, informirani pristanak polako po-

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staje doktrina među medicinskim profesionalcima, a kao koncept postao je vrlo prisutan i u svijesti bolesnika/ispitanika. Informirani pristanak ili *pristanak informiranog* nije samo potpis na obrascu, već predstavlja kontinuiranu komunikaciju između dviju ravnopravnih, kompetentnih i autonomnih osoba, liječnika i bolesnika, tj. istraživača i subjekta, i zajedničko donošenje odluke o medicinskom tretmanu.

Historijat i razvoj koncepta informiranog pristanka

Sve do polovine 20. stoljeća vladao je paternalistički koncept odnosa liječnik – bolesnik, koji je podrazumijevao bespogovornu poslušnost bolesnika i autoritativnu poziciju liječnika. Smatralo se da otkrivanje mogućih rizika i negativnih posljedica medicinskih intervencija može narušiti bolesnikovo povjerenje, a da nepoznavanje medicinskih znanja stavlja bolesnika u položaj da ne može odlučivati o vlastitoj dobrobiti, stoga je liječnik bio taj koji je odlučivao umjesto bolesnika. Ako je postojala opasnost da informacija na neki način može povrijediti bolesnika, prešućivanje informacija ili čak obmanjivanje bolesnika smatralo se sasvim opravdanim.

Tijekom 50-ih i 60-ih godina 20. stoljeća postalo je uobičajeno da se od bolesnika traži suglasnost prije neke medicinske intervencije, naročito u kirurgiji, prije svega radi zaštite liječnika, jer su se u to vrijeme već počeli voditi sporovi koje su pokrenuli oštećeni bolesnici. Prema Tomu Beauchampu i Ruth Faden informirani pristanak kao pojam osmišljen je 1957., kada je suština informiranog pristanka utvrđena tijekom sudskog procesa *Salgo vs. Leland Stanford Jr.*¹ Naime, gospodin Salgo dao je pristanak za izvršenje dijagnostičke procedure koja je trebala lokalizirati izvor kroničnog bola koji je imao u nozi. Kontrastna boja, koja mu je injektirana u nogu, izazvala je paralizu. Salgo je tužio svoje liječnike zato što ga nisu unaprijed informirali o rizicima i posljedicama ove intervencije. U ovom slučaju sud je razmatrao ne samo pitanje je li pristanak dan za predloženu medicinsku proceduru, već se fokusirao i na pitanje je li bolesnik bio adekvatno informiran. Upravo ovo pitanje adekvatnosti informiranja predstavlja najveći napredak u smislu poštovanja autonomije i prava samoodređenja bolesnika. Nedugo zatim u slučaju *Natanson vs. Kline* (1960. godine)², koji je bio vrlo nalik slučaju Salgo (u gospođe Natanson su se zbog postoperativnog zračenja nakon mastektomije razvile teške opekotine, pa je tužila liječnike jer je nisu informirali o štetnim posljedicama zračenja, niti joj ukazali mogućnost alternativne metode liječenja) sud je ustanovio dužnost potpunog otkrivanja informacija, kao i dužnost "da se iznese i objasni bolesniku na njemu razumljiv način

¹ Tom L. Beauchamp, Ruth R. Faden, *History of Informed Consent*, u: Encyclopedia of Bioethics, New York 1996., str. 1232-1237.

² Ibidem.

priroda bolesti, priroda predloženog tretmana, vjerojatnoća uspjeha, kao i rizici neželjenih posljedica i neočekivanih stanja u organizmu". Ove moralne tekovine vezane uz kliničku praksu slabo su utjecale na plan biomedicinskih istraživanja. Baš tih 60-ih i 70-ih objavljeni su podaci o eksperimentima kojima su se grubo prekršila osnovna ljudska prava (od kojih je svakako najpoznatija studija Taskegi), vršenim u državnim medicinskim ustanovama, nad starcima, djecom, afroamerikancima.

Objavljivanje ovih istraživanja pokrenulo je velike rasprave i u medicinskim krugovima, ali i među predstavnicima prava, filozofije i sociologije. Tijekom 70-ih i 80-ih godina svijest o značaju načela autonomije i samoodređenja probudila se u vidu značajnih socijalnih pokreta, za prava žena, prava zatvorenika, mentalno oboljelih osoba, kao i prava bolesnika. Središnje mjesto u području medicine i zdravstvene zaštite svakako je zauzelo načelo informiranog pristanka, koji je počeo dobivati i svoje legalne okvire. Američki kongres 1974. godine osnovao je Nacionalnu bioetičku komisiju, koja je obavljala bioetičke ekspertize pojedinih slučajeva, davala istraživačima etičke preporuke i smjernice za ponašanje u humanim istraživanjima³. Ove preporuke poslužile su američkoj vladi kao osnova za izradu nacionalnih propisa na polju informiranog pristanka. Nacionalna bioetička komisija istakla je tri osnovna etička načela koja su predstavljala temelj načela informiranog pristanka: poštovanje osobe, dobročinstvo i pravednost.

Dakle, nekoliko faktora pridonijelo je shvaćanju informiranog pristanka kao središnjeg i ključnog u odnosu liječnik - bolesnik. To je prije svega iznošenje pred oči javnosti zloupotrebu i kontroverze iz prošlosti, zatim jačanje pokreta za zaštitu prava bolesnika, kao i konzumeristički pristup medicini koji je uzeo maha posljednjih desetljeća⁴.

Suština informiranog pristanka

informirani pristanak danas predstavlja ključ odnosa liječnik – bolesnik i kao takav predmet je mnogih medicinsko-etičkih i bioetičkih rasprava. Informirani pristanak zapravo je praktična primjena etičkog načela autonomije u medicinskoj praksi. Načelo autonomije predstavlja pravo osobe da autonomno, tj. nezavisno odlučuje o svom životu i djeluje u skladu sa svojim autonomnim odlukama⁵. Preneseno u kontekst medicine, autonomija je pravo bolesnika na svoje mišljenje i procjenu vlastitog zdravstvenog stanja, kao i predložene medicinske intervencije, i pravo da u skladu sa

³ Ruth R. Faden, Tom L. Beauchamp, *A History and Theory of Informed Consent*, Oxford University Press, New York 1986., str. 215-219.

⁴ Neil Messer, *Professional-patient relationship and informed consent*, Postgrad Med J (2004), str. 80-277.

⁵ Jay Katz, *The Silent World of Doctor and Patient*, Free Press, New York 1984., str. 105.

svojim mišljenjem i stavom donese odluku o prihvatanju ili odbijanju tretmana. Prema Beauchampu i Childressu⁶ tri su uvjeta neophodna za realizaciju načela autonomije: 1) *sloboda* (nezavisnost od kontrolirajućih utjecaja), 2) *djelovanje* (kapacitet za namjerno djelovanje) i 3) *razumijevanje*. Budući da je nakon stoljeća paternalističke medicinske prakse i omalovažavanja stava bolesnika o vlastitoj sudbini najzad u društvu sazrela svijest o značaju poštovanja načela autonomije, informirani pristanak nastao je kao otjelotvorenje ovog načela. Prema tome, informirani pristanak predstavlja "autonomnu dozvolu (koju pojedinac daje) za provedbu medicinske intervencije ili sudjelovanje u istraživanju"⁷. Ono što je, zapravo, suština i glavni cilj načela informiranog pristanka, davanje je mogućnosti bolesniku da bude informirani sudionik u donošenju odluka o svom zdravlju.

Da bi informirani pristanak bio valjan, neophodno je da budu ispunjeni sljedeći uvjeti: *kompetentnost bolesnika*, *adekvatnost informacije* i *dobrovoljnost*⁸. *Kompetentnost* je sposobnost osobe da razumije informaciju relevantnu za donošenje odluke, da shvati važnost i značaj informacije u danoj situaciji, da zaključuje koristeći informaciju, da izabere i izrazi svoj izbor⁹. Ako je bolesnik nekompetentan, pravo odlučivanja u njegovo ime steći će najbliži član obitelji ili staratelj kojeg je dodijelio sud. *Adekvatnost informacije* odnosi se na moralnu dužnost liječnika da bolesniku na njemu razumljiv način objasni kako će se intervencija sprovesti, koje su njene moguće posljedice, da mu predoči moguću alternativu i njezine posljedice itd. Dobra komunikacija između liječnika i bolesnika ima ključni značaj za ovaj vid informiranog pristanka. *Dobrovoljnost* podrazumijeva da bolesnik donosi odluku samovoljno, bez tuđeg utjecaja, prinude, obmane i manipulacije. Dobrovoljnost lako može biti narušena u uvjetima medicinske prakse, prije svega zbog nesrazmjera u znanju i moći između liječnika i bolesnika, zatim u slučajevima izrazito vulnerabilnih bolesnika kao što su mentalno ometene osobe, psihijatrijski bolesnici, zatvorenici, djeca, beskućnici¹⁰. Zavisni odnos između bolesnika i liječnika može, primjerice, dovesti do toga da se bolesnik osjeća obaveznim sudjelovati u istraživanju, u strahu da će se liječnik loše brinuti o njemu ako odbije, i upravo je uloga informiranog pristanka u tome da se bolesnik uvjeri da njegovo odbijanje sudjelovanja u istraživanju neće imati nikakve loše posljedice za liječenje.

⁶ Tom L. Beauchamp, James F. Childress, *Principles of Biomedical Ethics*, New York 1994., str. 121.

⁷ Ibidem, str. 78.

⁸ Ian Kennedy, Andrew Grabb, *Principles of Medical Law*, Oxford University Press, Oxford 1998., str. 109-279, 495-545, 714-746.

⁹ Tom L. Beauchamp, James F. Childress, *Principles of Biomedical Ethics*, str. 70.

¹⁰ Neil Messer, *Professional-patient relationship and informed consent*, str. 280.

Informacija u informiranom pristanku

adekvatnost informacije i uopće neophodna količina informacija u informiranom pristanku predstavljaju najproblematičniji aspekt informiranog pristanka. Dobivanje dobrovoljnog pristanka za medicinsku intervenciju od kompetentnog bolesnika predstavlja pravnu normu koja je sastavni dio legislative većine razvijenih zemalja, no količina informacija i način na koji će ih liječnik prenijeti bolesniku još uvijek nisu na pravi način regulirani, štoviše, predstavljaju najveći problem u medicinskoj praksi. Tijekom perioda medicinskog paternalizma vladalo je stajalište da bolesnici nisu u mogućnosti razumjeti medicinske informacije i samim tim shvatiti težinu kliničke slike, pa su im liječnici davali samo najnužnije informacije. Suština pristanka bilo je "pranje ruku" liječnika i same medicinske ustanove od mogućih sudskih posljedica. Ovakvo stajalište djelomično je i danas prisutno, naročito u opterećenim zdravstvenim sustavima kao što je srpski, u kojima liječnik raspolaže vrlo malom količinom vremena po bolesniku, koje najčešće potroši na komplicirane birokratske poslove vezane uz dokumentaciju (prema podacima Instituta za javno zdravlje "Milan Jovanović Batut" liječnik ima oko 10 minuta na raspolaganju za svakog bolesnika¹¹). Ova količina vremena nije dovoljna ni za obavljanje kvalitetnog fizičkog pregleda, tako da za razgovor i informiranje na kraju ostaje najmanje vremena. Ipak, bez obzira na realno stanje u praksi, koje je daleko od idealnog, treba posvetiti pažnju i vrijeme prosvjećivanju i liječnika i bolesnika o značaju razgovora u odnosu liječnik – bolesnik. Danas se smatra da je upravo razgovor središnji i najvažniji dio informiranog pristanka. S obzirom na to da je u pitanju njegovo zdravlje, svaki bolesnik je u manjoj ili većoj mjeri vulnerabilan, pa u skladu s tim liječnik mora uzeti u obzir okolnosti u kojima se vrši razgovor, tako da na svaki način izbjegne pokroviteljski stav i potruđi se da bolesnik razumije i prihvati sve dobivene informacije. Sumnja da bolesnik ne može razumjeti složenu medicinsku informaciju vrlo lako može rezultirati neprihvatljivim paternalističkim stavom liječnika, što je u povijesti medicine često imalo katastrofalne posljedice¹².

Koja količina informacija je neophodna?

Cilj informiranog pristanka trebao bi biti povećanje bolesnikova razumijevanja vlastitog zdravstvenog stanja, prirode i rizika predložene medicinske intervencije, kao i saznanje o mogućoj alternativi i njenim rizicima, kako bi mu se omogućilo da s razumijevanjem odluči hoće li intervenciju prihvatiti ili ne. Samo prenošenje informa-

¹¹ <http://www.batut.org.rs/download/izvestaji/analizaPZZ2009.pdf>

¹² Vesna Klajn-Tatić, *Etički i pravni položaj punoletnih poslovno sposobnih ljudi kao subjekata biomedicinskih istraživanja ili ogleda*, Strani pravni život 2/2010, str. 228.

cija najlakši je dio posla, mnogo veći izazov predstavlja evaluacija stupnja razumijevanja date informacije. Liječnik mora obratiti pažnju na faktore koji mogu utjecati na razumijevanje informacija (stupanj obrazovanja bolesnika, socijalno–kulturni milje, trenutno emocionalno stanje, jezik) i na autonomiju, tj. dobrovoljnost odlučivanja (npr. članovi porodice koji mogu utjecati na donošenje odluke i sl.).

Prema Beauchampu i Childressu postoje tri *standarda adekvatnog informiranja*¹³. Prvi je *standard razumnog liječnika*, koji je determiniran praksom medicinske zajednice, tj. liječnik je taj koji određuje koja količina kakvih informacija je u najboljem interesu za bolesnika. Ovaj standard fokusira se na dobrobit bolesnika, čak i po cijenu narušavanja njegove autonomije, i rasprostranjen je u legislativi većine europskih zemalja, pa i Srbije¹⁴. Drugi je *standard razumnog bolesnika*, koji prije svega uzima u obzir potrebe za informacijama samog bolesnika, radije nego liječnikovo mišljenje o bolesnikovim potrebama. Ovaj standard u centar stavlja bolesnikovu autonomiju i pravo na samoodređenje i podrazumijeva količinu i kvalitetu informacija koje bi "razumnom bolesniku" (koji predstavlja prosječnog, kompetentnog bolesnika) bile dovoljne da donese autonomnu odluku. Ovaj standard prisutan je u pravnom i zdravstvenom sustavu SAD-a, Njemačke, Švicarske i Engleske. Kao najpoželjniji i najodgovarajući smatra se treći, "subjektivni" standard, koji naglašava da količina i kvaliteta informacija moraju biti prilagođeni individualnim potrebama svakog bolesnika, njegovim intelektualnim kapacitetima, kao i socijalnom i kulturnom kontekstu kojem pripada.

Posljednji, subjektivni pristup zahtijeva velik angažman i trud liječnika. Informiranje ne može trajati par minuta, nego treba biti *kontinuirani proces* u kojem liječnik mora upoznati bolesnika, steći njegovo povjerenje i naći najbolji način da mu prenese informacije o stanjima vezanim uz zdravlje i bolest, prirodu dijagnostičko–terapijskog tretmana, mogućim rizicima, kao i o alternativni, tako da ih bolesnik razumije i, naravno, da se uvjeri u to da je bolesnik na pravi način primio k znanju informacije, da ih je u potpunosti razumio. Budući zdravstveni radnici moraju steći ove vještine tijekom obrazovanja, kada moraju spoznati važnost objašnjavanja i davanja odgovora na pitanja bolesnika.

Značaj informiranog pristanka leži i u sprječavanju obmane i prinude bolesnika. Ovdje je vrlo važna količina informacija koja se pruža bolesniku. S jedne strane, previše informacija koje uključuju tehničke i usko stručne detalje vezane uz medicinsku proceduru može preopteretiti i najobrazovanijeg i najenergičnijeg bolesnika i ometi

¹³ T. Beauchamp, J. Childress, *Principles of Biomedical Ethics*, str. 81–83.

¹⁴ Vesna Klajn-Tatić, *Obaveštenje i pristanak pacijenta na medicinsku intervenciju*, Uvodno predavanje na XL. stručnom sastanku liječnika "Užički dani", u organizaciji Srpskog liječničkog društva Podružnice zlatiborskog okruga koje se održavalo 16. i 17. 10. 2009.

ga u rasuđivanju, dok s druge strane, šture generalizirane informacije mogu dovesti bolesnika u situaciju da donosi odluku bez potpunog razumijevanja¹⁵. Rješenje bi moglo ležati u *postupnom* informiranju bolesnika. Naime, uz sigurnost da je bolesnik razumio prethodno date općenitije informacije, liječnik može bolesnika dalje uvoditi u detaljnija objašnjenja procedura i rizika, ovisno o bolesnikovoj želji da se dalje informira. Tako bolesnik odlučuje do koje razine će se informirati. Pored toga, bolesniku se mora predložiti da u svakom trenutku može poništiti svoj pristanak i odustati od procedure. Ova mogućnost odustajanja predstavlja najvažniju zaštitu od obmane i prinude.

Pravni okvir za informirani pristanak u Republici Srbiji

najopćenitija pravna osnova liječničke obaveze dobivanja bolesnikova informiranog pristanka nalazi se u Ustavu Republike Srbije, u pravu svakog čovjeka na samoodređenje. Liječnička obaveza, prema Ustavu, predstavlja dužnost liječnika da svakom bolesniku omogući da očuva "pravo na lično samoodređenje u odnosu na vlastito telo", tj. da samostalno donese odluku o pristanku na određenu medicinsku intervenciju s izričitim pristankom.

U *Zakonu o zdravstvenoj zaštiti* iz 2005.¹⁶ u odjeljku *Ljudska prava i vrednosti u zdravstvenoj zaštiti i prava pacijenata*, u članu 28. jasno je definirano pravo na obavještenje: "Pacijent ima pravo da od nadležnog zdravstvenog radnika blagovremeno dobije obavještenje koje mu je potrebno kako bi doneo odluku da pristane ili ne pristane na predloženu medicinsku meru". Obavještenje uključuje informaciju o dijagnozi i prognozi bolesti, zatim opis predložene medicinske mjere sa svim njenim rizicima i posljedicama, kao i posljedicama nepoduzimanja opisane metode, zatim informacije o postojećoj alternativnoj mjeri liječenja. Prema ovom članu zakona, liječnik je dužan dati bolesniku obavještenje "usmeno, na način koji je razumljiv pacijentu, vodeći računa o njegovoj starosti, obrazovanju i emocionalnom stanju". U izuzetnim slučajevima, liječnik može prešutjeti dijagnozu, tijek i rizike predložene medicinske intervencije, ili obavještenje umanjiti, ako procijeni da bi informacija mogla znatno narušiti bolesnikovo zdravstveno stanje, te u tom slučaju obavještenje dati najbližem članu obitelji.

Zakon o zdravstvenoj zaštiti također sadrži i odjeljak *Pravo na samoodlučivanje i pristanak*, u kome u članu 31. stoji da bolesnik ima pravo slobodno odlučivati o svemu što se tiče njegova života i zdravlja, osim ako ne ugrožava život i zdravlje drugih lju-

¹⁵ Onora O'Neill, *Some Limits of Informed Consent*, Journal of Medical Ethics (2003.), str. 29-5.

¹⁶ *Zakon o zdravstvenoj zaštiti*, Službeni glasnik Republike Srbije, br. 107/05.

di. U članu 32. navodi se da je punopravan pristanak jedino onaj kome prethodi obavještenje koje je dao liječnik, na način koji je opisan u gore navedenom članu 28. Pristanak se može dati izričito (usmeno ili pismeno) ili prešutno (ako nije bilo izričitog protivljenja bolesnika), i može biti usmeno opozvan sve do početka izvođenja medicinske intervencije. Prema članu 33. bolesnik ima pravo predloženu medicinsku mjeru odbiti, čak i ako time ugrožava svoj život. Naravno, liječnik je dužan bolesnika detaljno obavijestiti o posljedicama odbijanja medicinske mjere, i od njega dobiti pismenu izjavu o odbijanju.

Ovi zakoni donijeti su po ugledu na zakonodavstva najvećeg broja europskih zemalja, u skladu s podignutom razinom svijesti o važnosti ljudskih prava u svim područjima života, a naročito u zdravstvu. Zakonom utvrđene liječničke dužnosti i zaštita bolesnikovih prava o odlučivanju o vlastitom životu i zdravlju pridonose očuvanju Ustavom garantiranog prava na samoodređenje, no i pored evidentnog napretka u odnosu na prethodne zakone i dalje je područje reguliranja informiranog pristanka vrlo problematično. S obzirom na to da zakonodavac Republike Srbije nalaže davanje informacija vezanih isključivo uz bolesnikovo odbijanje medicinskih mjera, a da sve ostale informacije koje trebaju služiti bolesnikovu pravu na samoodlučivanje i pristanak prepušta slobodnoj procjeni liječnika, postavlja se pitanje koliko se zaista koncept informiranog pristanka primjenjuje u praksi. Vode li se liječnici prije svega načelom dobrobiti bolesnika ili su im načela autonomije i samoodređenja bolesnika na prvom mjestu? Koliko se u praksi vremena zaista posvećuje razgovoru i detaljnim objašnjenjima, a koliko često se informirani pristanak svodi na puko potpisivanje obrasca? Vrlo je obeshrabrujuća činjenica da velik broj liječnika i dalje informirani pristanak vidi kao zaštitu vlastitih prava na sudu od rastuće prakse bolesničkih tužbi. I pored naglašenih problema preopterećenosti zdravstvenog sustava i nedostatka vremena, radi napretka zdravstvenog sustava Srbije neophodno je pozabaviti se problemom informiranog pristanka, kao kamena temeljca za razvoj modernog, partnerskog odnosa liječnik – bolesnik.

Zaključak

U protekla dva desetljeća značajno se promijenio dotadašnji tradicionalan pristup prema čovjeku u biomedicinskoj praksi, čija je karakteristika bila poistovjećivanje bolesnika s bolešću, i u skladu s tim pasivna uloga bolesnika kao objekta biomedicinskog tretmana. Na promjenu pristupa medicinskih profesionalaca prema bolesnicima najviše je utjecalo podizanje svijesti čitavog društva o značaju poštovanja ljudskih prava i vrijednosti, u najvećoj meri prava na samoodređenje. Postalo je jasno da se bolesnik mora uključiti u donošenje odluka o vlastitom zdravlju i životu. Narav-

no, ovaj trend poštovanja autonomije najprije je zahvatio zdravstvene sustave zapadnih, razvijenih zemalja, pa je naš zakonodavac u Ustavu i Zakonu o zdravstvenoj zaštiti dužnosti liječnika i prava bolesnika regulirao sasvim po ugledu na zakonodavstva zemalja Europske unije. Ipak, iz neformalnih razgovora s većinom liječnika i profesora medicinskih fakulteta u Srbiji, kao i s bolesnicima, a i iz vlastitog iskustva u ulozi bolesnika, mogu zaključiti da je realnost daleko od idealnog. S obzirom na to da kvaliteta informiranog pristanka i uopće njegova valjanost u velikoj meri i dalje zavise od liječnikove procjene konkretne medicinske situacije, od njegovih stavova i volje, neophodno je uložiti trud u prosvjećivanje i etičko obrazovanje medicinskih radnika, kao i ovladavanje vještinama adekvatne komunikacije s bolesnicima. Tek kada se kod medicinskih profesionalaca podigne svijest o značaju razgovora i informiranja bolesnika o svim pitanjima vezanim uz njihovo zdravlje, stvorit će se plodno tlo za implementaciju koncepta informiranog pristanka u njegovom pravom, kompleksnom značenju.

Vida Jeremić

Informed consent: Communication between doctors and patients

ABSTRACT

This paper addresses the question of informed consent, as reflection of fundamental changing in *doctor-patient* relationship. Focus of the paper is actually *the information* in informed consent, which is the most problematic aspect of informed consent, since the amount of information and the manner in which the information will be transferred to patient are not yet legally regulated in the most of countries, not even in Serbia. In burdened health care systems that suppose a small amount of time to each patient, least amount of time is left for informing and conversation. Therefore, it is necessary to pay attention to educating and enlightenment of physicians and patients in terms of importance of communication in *doctor-patient* relationship, as communication is considered to be crucial element of informed consent. Considering that Serbian legislator is binding upon providing only information regarding patient's refusing of medical care, but providing all other information that are addressing patient's right to self-determination and autonomy leaves to physician's assessment, it is a question how is actually concept of informed consent applying in medical practice.

Key words: informed consent, *doctor-patient* communication, legal frame

Csilla Keresztes*

Genre-based teaching of medical translation

ABSTRACT

This paper describes the advances in teaching medical translation in Hungary. Since the 1950s English has become the dominant language in health sciences, and there is an increased need for English–Hungarian translators in the field. Our medical translator programme has undergone several changes in the past 25 years answering the current needs. Our main objective is to develop the textual and communicative competence of students, teach them problem solving strategies and tactics, and encourage their creativity as an addition to the knowledge of translation theory and linguistics and of the knowledge of English/Hungarian for medical purposes. Developing their translation competence is based on the concept of text genre. Mediation is taught by providing them health related texts with text models and patterns that they can use for textual, conceptual, linguistic and terminological reference.

Key words: genre, lingua franca, medicine, terminology, text-types, translation.

Introduction

This paper is intended to describe the advances in teaching medical translation at the Faculty of Medicine, University of Szeged, Hungary. Medical translation is the most universal and oldest field of scientific translation because of the homogeneous ubiquity of the human body and the venerable history of medicine.¹ Since the 1950s, Eng-

¹ Henry Fischbach, "Some Anatomical and Physiological Aspects of Medical Translation: Lexical equivalence, ubiquitous references and universality of subject minimize misunderstanding and maximize transfer of meaning", *Meta: journal des traducteurs / Meta: Translators' Journal*, 31, (1/1986.), p. 16.

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lish has become not just an important language in the field of medicine, but also the predominant language of health sciences. At present, English is the most widespread lingua franca of the western world used in science and medicine. Researchers must be able to express themselves in this language if they want to be fully accepted members of the international academic community. The most recent advances in medicine are available only in English. The English language competence of Hungarian physicians, especially university clinicians, has spectacularly increased in the past 20 years; however, other health professionals still strictly rely on literature translated into their native language. Therefore, there is an increased need for English–Hungarian translators in the field of health sciences. The medical translator programme at our university has undergone several changes in the past 25 years, as curriculum designers have attempted to answer current needs in the field. The main objective of our programme is to develop the competence of the students in the communicative aspects of translation and interpretation, teach them problem solving strategies and tactics, and encourage their creativity as an addition to knowledge of translation theory and linguistics, and knowledge of language for medical purposes. This paper aims at describing some of the procedures we use in teaching medical translation and the materials developed for the purpose of mediation between the two languages: English and Hungarian.

Genre and genre based translation

Kress² highlights that "genres are [...] crucial indicators of the regulation of the domains of public and private in particular instances. [...] Generic forms encode socially and culturally given modes of interrelation and interaction in specific social occasions".

Variation within modern genres of the professional language is described by Swales³ and Bhatia;⁴ and assessments of diachronic variation are dealt with by Taavitsainen⁵ and, especially in the field of medicine, by Rébék-Nagy.⁶ Swales⁷ defines genre as "a

² Gunther Kress, *Language in the media: The construction of the domains of public and private. Media, Culture and Society*, 8, (October/1986), p. 414.

³ John Swales, *Genre analysis: English in academic and research settings*, Cambridge University Press, Cambridge 1990.

⁴ Viyah K. Bhatia, *Analysing genre: Language use in professional settings*. Longman, London 1993.

⁵ Irma Taavitsainen, "On the evolution of scientific writings from 1375 to 1675: Repertoire of emotive features", in: Francisco Fernández, Miguel Fuster and Juan Jose Calvo (ed.) *English historical linguistics*, John Benjamins, Amsterdam 1994, pp. 329–342. and Irma Taavitsainen, "Subjectivity as a text-type marker in historical stylistics", *Language and Literature*, 3 (1994.), pp. 197–212.

⁶ Gábor Rébék-Nagy, *Modulation of authors' claims in the introduction and discussion sections of medical research articles*, Aston University, Birmingham 1997. MSc dissertation.

⁷ John Swales, *Aspects of article introductions*, Aston Monographs. 1. Aston University, Birmingham 1981. and John Swales, *Episodes in English*, Pergamon Press, Oxford 1985.

recognizable communicative event characterized by a set of communicative purpose(s) identified and mutually understood by the members of the professional or academic community in which it regularly occurs". Thus, genres do not belong to individuals but are the properties of discourse communities. These discourse communities are "socio-rhetorical networks that form in order to work toward sets of common goals ... [they have] familiarity with the particular genres that are used in the communicative furtherance of those sets of goals".⁸ Institutional context (including system and methodology) in which the given genre is used and also in which it has a dominant role, and conventions of that institutional setting should be considered when analyzing professional genres.⁹

Corpus-based studies have shown that genres of writing may be very heterogeneous in their linguistic features and that there is variation even within a narrowly defined genre. Bazerman and Paradis¹⁰ affirm that medical discourse evolves and emerges in relation to scientific practices. Written texts within professions give us insight into how the professions constitute themselves and carry out their work through texts.¹¹ Professional writing can also be seen as negotiation between text participants, and the social nature of this communication is emphasized in it.¹² Internationalization is an increasingly important factor in medical writing, and the position of English as the lingua franca of medicine has an influence on the writing conventions of medical texts today.

The concept of genre is a key term in medical communication, as all medical communicative events can be classified into specific written or spoken genres.¹³ Editorials, research articles, abstracts, case reports, presentation papers or posters can be found in many other academic disciplines, however, each of them develops a set of peculiarities characteristic of the medical profession alone. Genres change according to changes in socio-cultural needs, new genres are created and older ones may cease to exist.

⁸ John Swales, *Genre analysis: English in academic and research settings*, Cambridge University Press, Cambridge 1990, p. 34.

⁹ Viyah K. Bhatia, *Analysing genre: Language use in professional settings*. Longman, London 1993.

¹⁰ Charles Bazerman and James Paradis (ed.), *Textual dynamics of the professions: Historical and contemporary studies of writing in professional communities*. University of Wisconsin Press, Madison 1991.

¹¹ Charles Bazerman, "Emerging perspectives on the many dimensions of scientific discourse", in: James R. Martin and Robert Veil (ed.), *Reading science: Critical and functional perspectives on discourses of science*. Routledge, London 1998, pp. 15–28.

¹² Greg Myers, *Writing biology: Texts in the social construction of scientific knowledge*. University of Wisconsin Press, Madison 1990. and Britt-Louise Gunnarsson, Per Linell and Bengt Nordberg, *The construction of professional discourse*. Longman, London 1997.

¹³ Jordi Pique-Angordans and Santiago Posteguillo, "Medical discourse and academic genres", in: Keith Brown (ed.), *Encyclopedia of language and linguistics*, 6, Elsevier, Amsterdam 2006, pp. 649–657.

The translator, as an expert writer, will have to be thoroughly familiar with these restraints and should actively be involved in genres. Genres can be defined as multifaceted concepts involving the socio-communicative perspective (the relationships between the participants), the formal perspective (the conventional elements corresponding to the readers' expectations generated by the socio-communicative context), and the cognitive perspective (the ways the community understands, organizes and transforms the reality it is surrounded by). Thus, we can conclude that genre is a category that plays an essential role in designing the curriculum for teaching translation. Translator students should become capable of recognizing that a certain text belongs to a certain genre (from a particular socio-professional domain) due to its features of prototypicality and recurrence, which are displayed in different micro- and macrostructural categories.

Elaborating on text types and genres makes translator students possible to identify a series of elements in them: the agents in the text, the relationship between them concerning power and authority, and the situational context in which the text type occurs. Genre competence can help the students have a thorough understanding of the socio-linguistic context, and acquire bicultural and thematic knowledge as well. Genre competence may also help them increase awareness of textuality and discourse as well as recognize cultural and intercultural values, perceptions, and behaviours.¹⁴ It also promotes the development of the capacity to understand, analyse and produce texts that are compatible with the genres and subgenres present both in the source culture and in the culture where the target language is used.

Medical writing is a general label with a great deal of variation across several genres:¹⁵ research genres, e.g., research papers, review articles, case reports, conference proceedings; educational genres, e.g., course books, training courses, fact sheets for patients; professional genres, e.g., guidelines, informed consents, case notes, discharge summaries, lab results, and commercial genres, e.g., manuals, contracts, product catalogues.

A medical document should only be translated by someone who is completely familiar with the subject in order to translate accurately each term and meaning, and then avoid any negative consequences for the patient or medical personnel. Medical translation is considered to be the translation of technical, regulatory, clinical or marketing documentation, software or training curriculum for the pharmaceutical,

¹⁴ Dorothy Kelly, *A Handbook for Translator Trainers*, Translation Practices Explained Series, St. Jerome Publishers, Manchester 2005.

¹⁵ Vincent Montalt and Maria Gonzalez Davies, *Medical translation step by step*, St. Jerome Publishing, Manchester 2007.

medical device or healthcare fields.¹⁶ Medical translation is thought to be one of the oldest domains of translation: the sufferings of the body and soul have always been our central preoccupation.¹⁷ Good medical translation can be done both by medical professionals and medically knowledgeable linguists; but in both cases a love of language, an ear for style, a willingness to pursue arcane terminology and caring enough to get it exactly right are the keys to true success.¹⁸

The Medical Translator and Interpreter Programme in Szeged

Our English–Hungarian Medical Translator and Interpreter programme was initiated more than 25 years ago at the University of Szeged, Hungary. The most recent, updated 4-semester course is organized for postgraduate students from the field of health sciences: for physicians, pharmacists, physiotherapists and other health professionals. Applicants should have an MSc or BSc degree in health sciences, advanced knowledge of English and should successfully pass the entrance exam.

Aims of the programme

One of the skills that is most evidently required to be a good professional linguistic mediator (translator and interpreter) is textual and communicative competence, which includes the ability to understand and produce texts that conform to the conventions of the specialized languages being worked with. This skill is particularly significant in the case of specialized writing or language for specific purposes where the fact that the translator has to work with texts that require a much deeper conceptual and contextual knowledge determines the way in which textual competence should be acquired and applied.

Translation requires more than exchanging terms or phrases between languages, adhering to grammatical rules, and choosing the appropriate register. It is a meaning-focused activity concerned with mental processes of analysis and synthesis, communicative language use, and the reproduction of structured discourse.¹⁹

The programme aims at introducing students the theory and practice of translation and linguistics with a focus on the language of medicine. Students are familiarised

¹⁶ <http://www.slideshare.net/studentsandteachers/aljwhra-al-ahmari> (11 February 2012)

¹⁷ Henri Van Hoof, "Histoire de la traduction médicale en occident", CILL, 19, (1/1993.), pp. 1–2.

¹⁸ Marla O'Neill, *Who Makes a Better Medical Translator: The Medically Knowledgeable Linguist or the Linguistically Knowledgeable Medical Professional? A Physician's Perspective*. American Translators Association Scholarly Monograph Series, 10/1998, pp. 69–80.

¹⁹ Adil Al-Kufaishi, *Translation as a learning and teaching strategy*, Babel, 50, (1/2004.), pp. 45–59.

with computer assisted translation, localisation and terminology management; and they acquire competence in the communicative aspects of translation and interpretation, problem solving strategies and tactics, and creativity. Their skills are developed in both the source and target languages building on their scientific and professional knowledge (see Figure 1).

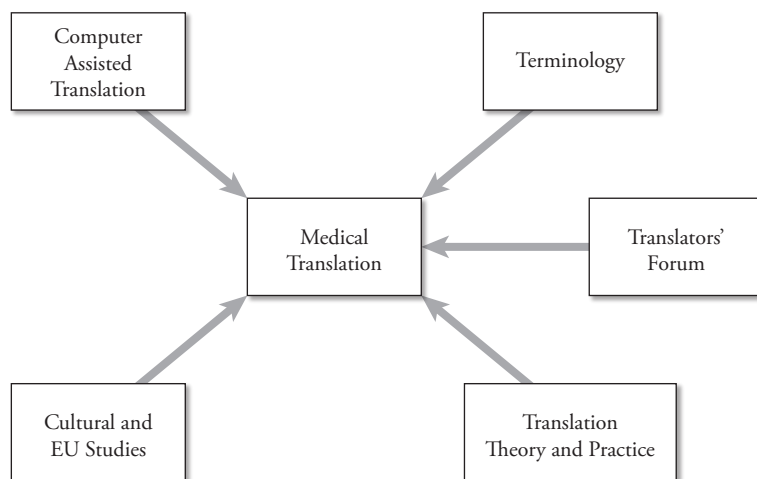


Figure 1 The Medical Translator and Interpreter Programme in Szeged

To maintain quality and to keep updated, we send questionnaires to alumni regularly (every third year). Discussions are organized with part-time and full-time translators, and with the representatives of translation agencies each year to decide which text-types should be focused on in the translator course. According to the current discussions, the most frequently translated genres and text-types from English into Hungarian are the research articles, product catalogues, manuals, guidelines, patient information sheets and informed consent forms, and the clinical trial protocols. From Hungarian into English, medical translators should mostly translate scientific abstracts, research articles, PhD dissertations, patient information sheets and informed consent forms, and the clinical trial protocols (back-translation), discharge summaries, outpatient notes, and laboratory findings.

Guidelines in translation

Translation is a complex and intellectually challenging process. Moreover, translation is a creative force: it enriches the target language by introducing new words and the concepts and conventions that go with them. There are certain guidelines to be

followed in the translation of medico-scientific texts: the target language readership (area knowledge, text analysis, decoded discourse markers) should be identified. Translators must be familiarized with medical guidelines and recommendations both in the source and target languages, as well as with the most frequent registers and sub-registers in the field of health sciences. The issues of international language use should be highlighted, i.e., localisation in health care texts; however, the language contact induced features in translation, grammatical and semantic interferences, should be minimized. Translators should study the reference literature and previous translations done in the same field to make informed decisions, adapt terminology to the given field of medicine (e.g., public health vs. cardiology), and eliminate false friends. Proper spelling and use of abbreviations and acronyms should be paid special attention to. Proofreading should also comprise the checking of numerical data, chemical compounds and formulae in the translated text. Finally, the translated text may be domesticated by professionals (medical, pharmaceutical, chemical, biological, psychological or even technical experts). In the "translation industry", the above guidelines cannot be followed in each case as there is huge time pressure on translators. Nevertheless, future translators should be taught these guidelines and they should be able to translate according to them.

Steps in teaching translation

The practical part of teaching translation always begins with *reading for translation purposes*. Translation is a tedious work if you need to look many words up in the dictionary or search the internet in every case. That is why we try to make our students find the words, phrases, clichés most often used in medical texts, and by using them in different types of exercises, they are also made to memorize as many of them as possible, and to identify further genre specific and topic specific linguistic features. They will facilitate the speed of the translation work together with the use of translation memories, which are started to be built from the first Terminology class. Texts for reading and translation are chosen according to their language content: some texts lend themselves to practising word formation or sentence transformation, whereas others are abundant in set phrases, and so on.

The second step is *code-switching or mediation*. Exercises which are called exchange manoeuvres are favoured to develop mediation skills. After reading English professional texts, the keywords, expressions, useful phrases and other sentence parts, which are very different in Hungarian, are collected, and students are asked to find the best Hungarian translation (code) for certain English phrases, e.g., *to show features suggestive of ...*, *a tablespoon or two teaspoons of blood will be drawn ...*. In each

case, multi-option translations are expected from the students. If words are considered to be the bricks of translation, phrases and expressions are the larger building blocks, which definitely make work easier with a better outcome.

Mediation is followed by *guided translation*, where the term guided translation sometimes means guided composition in reality. This step involves translation of texts or sometimes just separate sentences, in which students need to use the previously collected new vocabulary and phrasal items, and include certain parts of the target language translated in advance. In the case of these exercises, emphasis is put on developing grammatical correctness, thereby giving the bonding material to the building bricks described above.

The last step in our translation process is *revising and editing*. It can be performed in various forms, for example, by comparing the new translation with a translation prepared by a professional translator or with other students' translations. The major aim is to make publishable texts in the target language.

Our students do *in-class translation* week by week as pair work or team work (3 classes per week), and *individual translation* in the form of home assignments or translation projects.

Conclusions

Speaking and knowing two languages, no matter how intimately, does not automatically make the person a translator. It is a prerequisite, but translation is a craft and, like any craft, it calls for training. The quality of the end product also depends on the training and the professional guidance the translator has received as translators are trained, and not born.

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Neurocriticism: a contribution to the study of the etiology, phenomenology, and ethics of the use and abuse of the prefix *neuro-*¹

ABSTRACT

The last few decades, beside being proclaimed "the decades of the brain" or "the decades of the mind," have witnessed a fascinating explosion of new disciplines and pseudo-disciplines characterized by the prefix *neuro-*. To the "old" specializations of neurosurgery, neurophysiology, neuropharmacology, neurobiology, etc., some new ones have to be added, which might sound somehow awkward, like neurophilosophy, neuroethics, neuropolitics, neurotheology, neuroanthropology, neuroeconomy, and other.

Placing that phenomenon of "neuroization" of all fields of human thought and practice into a context of mostly unjustified and certainly too high – almost millenarianistic – expectations of the science of the brain and mind at the end of the 20th century, the present paper tries to analyze when the use of the prefix *neuro-* is adequate and when it is dubious.

Key words: brain, neuroscience, word coinage

Introduction

To enhance public awareness of the benefits to be derived from brain research, the Congress, by House Joint Resolution 174, has designated the decade beginning January 1, 1990, as the "Decade of the Brain" [...]. Now, Therefore, I, George Bush, President of the United States of America, do

¹ A significantly shorter version of this paper was presented at 9th *Lošinj Days of Bioethics, Mali Lošinj, Croatia, May 16-19, 2010.*

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*hereby proclaim the decade beginning January 1, 1990, as the Decade of the Brain. I call upon all public officials and the people of the United States to observe that decade with appropriate programs, ceremonies, and activities. In Witness Whereof, I have hereunto set my hand this seventeenth day of July, in the year of our Lord nineteen hundred and ninety, and of the Independence of the United States of America the two hundred and fifteenth.*²

Let aside the fact that a new decade did not begin in 1990 but a year later, with such pathos, George Bush Senior started an unprecedented avalanche of expectations, pompousness, and grants which will be lasting up today. The motives of launching the "Decade of the Brain" were inspired by increasing awareness and fear of the treath of Alzheimer's disease and neural sequels of drugs and AIDS, more than by the declared fascination by brain function. However, the race begun, primarily thanks to the efforts of the Library of Congress and the National Institute of Mental Health. The amount of neuroscience funding increased rapidly (although not as much as the Human Genome Project funding), and the popularization of the brain science did achieve significant advancement. Therefore, it had been no wonder that, when the "Decade of the Brain" had officially ceased, in 2001, a new project was set in motion – the "Decade of Behavior." Even before this "Decade" was finished, a new "Decade", the "Decade of the Mind" was conceived at a conference at George Mason University (Fairfax, Virginia) in May 2007: according to the "Mind Manifesto," published as a letter to the editor in *Science*, the "Decade of the Mind" should mark the period from 2012 to 2022 and attract some 4 billion dollars of funding.³

Obviously, we have been living at a time of a strongly and clearly declared highly-increased interest in the brain structure, function, pathology, and medical treatment. (How influential thereby is the interest of certain institutions into the possibility of mental manipulation, increase of mental capacities, neurotoxic interventions, etc., it still is to be determed.) That announced interest results in a new pressure upon scientists and reserch institutions, entering an unseen competitive situation. One of the major requests posed in front of the competitors is originality, innovativeness. Being first in wahtever means to be first to attract attention and funds: emerging are new scientific journals (Federation of European Neuroscience Societies, FENS, lists 62 journals with neuroscientific content,⁴ but the list is far from being completed and updated), projects (the budget of the National Institute of Mental Health, NIMH, jumped from 0,385 billion dollars in 1989⁵ onto

² Presidential Proclamation 6158 of July 17, 1990. <http://www.loc.gov/loc/brain/proclaim.html>

³ Decade of the Mind. http://en.wikipedia.org/wiki/Decade_of_the_Mind. Last modified: May 10, 2010

⁴ <http://fens.mdc-berlin.de/links/neurojournals.html>

⁵ http://www.nimh.nih.gov/about/budget/nimh_approp_history.pdf

1,54 billion dollars in 2011⁶), research centers (e.g. Hrvatski institut za istraživanje mozga, 1990/1997), societies (e.g. Hrvatsko društvo za neuroznanost, 2000), and manifestations (e.g., Dana Alliance Brain Awareness Week). One of the fields originality has been tested is the invention of new sub-disciplines. It is the aim of the present paper to try to provide an incomplete overview of the chronological spread of the use of the *neuro-* prefix, in order to discuss some broader trends in conceiving and naming "new" disciplines.

A short primer of neuro-disciplines

The first use of the *neuro-* prefix certainly was older than the recent inflation of dedicated decades. According to some sources, the term *neurology* dates back to about 1681⁷ (*neurologist* to 1832), neuropathology in 1853,⁸ *neurophysiology* to 1868⁹ (in June 1956, an entire Colloquium on the History of Neurophysiology was organized¹⁰), *neuropsychology* was first used in circa 1893,¹¹ *neuroanatomy* in cca 1899,¹² *neurosurgery* in 1904¹³ (*neurosurgeon* in 1925¹⁴), *neurobiology* in 1906,¹⁵ *neuropsychiatry* in 1918,¹⁶ *neuroendocrinology* in 1922,¹⁷ *neurochemistry* in 1924,¹⁸ *neuroradiology* in 1938,¹⁹ *neurohistology* in 1947,²⁰ *neuropharmacology* in 1950,²¹ *neurotheology* was coined by Aldous Huxley in his 1962 utopian novel named *Island*,²² a year later the term *neuroscience* was coined,²³ etc.

⁶ <http://www.nimh.nih.gov/about/budget/cj2011.pdf>

⁷ <http://www.merriam-webster.com/dictionary/neurology>

⁸ <http://www.merriam-webster.com/dictionary/neuropathology>

⁹ <http://www.merriam-webster.com/dictionary/neurophysiology>

¹⁰ http://jn.physiology.org/cgi/pdf_extract/20/2/211

¹¹ <http://www.merriam-webster.com/dictionary/neuropsychology>

¹² <http://www.merriam-webster.com/dictionary/neuroanatomy>

¹³ <http://www.merriam-webster.com/dictionary/neurosurgeon>

¹⁴ <http://www.etymonline.com/index.php?l=n&cp=6>

¹⁵ <http://www.merriam-webster.com/dictionary/neurobiology>

¹⁶ <http://www.merriam-webster.com/dictionary/neuropsychiatry>

¹⁷ <http://www.merriam-webster.com/dictionary/neuroendocrinology>

¹⁸ <http://www.merriam-webster.com/dictionary/neurochemistry>

¹⁹ <http://www.merriam-webster.com/dictionary/neuroradiology>

²⁰ R. Lindenberg and W. K. Noell, "Neurohistologic investigations on general oxygen deficiency of the brain," *Quarterly research report (USAF School of Aviation Medicine)* Oct; 3:9; R. Lindenberg, "Neurohistologic investigation on embolic injuries to the brain," *Quarterly research report (USAF School of Aviation Medicine)* Oct; 3:9; <http://www.ncbi.nlm.nih.gov/pubmed/18909048>

²¹ <http://www.merriam-webster.com/dictionary/neuropharmacology>

²² Aldous Huxley, *Island* (St. Albans : Triad/Panther, 1962/1976); <http://en.wikipedia.org/wiki/Neurotheology>

²³ <http://www.etymonline.com/index.php?term=neuroscience>

Term	First registered use of the word
neurology	cca 1681
neuropathology	1853
neurophysiology	1868
neuropsychology	cca 1893
neuroanatomy	cca 1899
neurosurgery	1904
neurobiology	1906
neuropsychiatry	1918
neuroendocrinology	1922
neurochemistry	1924
neuroradiology	1938
neurohistology	1947
neuropharmacology	1950
neurotheology	1962
neuroscience	1963
neurogenetics	1966
neuroepidemiology	1967
neurooncology	1975
neuroethology	1976
neupolitics	1977
neuroembryology	1977
neurocardiology	1977
neurotoxicology	1927
neuroimaging	1983
neurolinguistics	1985
neurocomputing	1987
neurophilosophy	1989
neuroinformatics	1992
neurolaw	1995
neuroengineering	1995
neuroprosthetics	1997
neuroenergetics	1999
neurogenomics	2001
neuroproteomics	2002
neuroethics	2002
neuromarketing	2002
neuroeconomics	2003
neuropedagogy	2004
neurorobotics	2004
neuroanthropology	2006

Source: Merriam-Webster On-Line Dictionary; Wikipedia; etc.

Many other *neuro-* terms are not to be found in the *Merriam-Webster On-Line Dictionary* at all.

It might be that **neurogenetics** as a term was first used in 1966,²⁴ meaning primarily the science studying the genetic underpinnings of the development of nervous system.

Since it allegedly was first introduced in 1967 by Len Kurland, Milton Alter, and John Kurtzke, the term **neuroepidemiology** has been used to determine the study of neurological disease distribution and determinants of frequency in human populations.²⁵

Neurophysics, a sub-discipline of neural science devoted to the study of neural processes at subcellular level and of theories of brain function, might have been used as a term for the first time in a paper by Mylroie and H. Koenig dated 1971.²⁶

According to the PubMed basis, the term **neurooncology**, for oncology devoted to the nervous-system tumors, first appeared in 1975.²⁷

Neuroethology, devoted to the study of animal behavior and its underlying mechanistic control by the nervous system,²⁸ was promoted by the German scientist Jörg-Peter Ewert about 1976.²⁹

While **neurotoxicology** seems to have not been used until 1977,³⁰ the term *neurotoxic* was known already at least in 1927.³¹

In the same year of 1977, probably also the name for **neuroembryology** was used for the first time in medical literature,³² as well as for **neurocardiology** (designating the neurophysiology and neuropathology of the cardiovascular system).³³

²⁴ R. A. Tkachev, "[The task of neurogenetics in the pediatric clinic]," *Vestnik akademii meditsinskikh nauk SSSR* 21, no. 6 (1966): 91-96.

²⁵ <http://en.wikipedia.org/wiki/Neuroepidemiology>

²⁶ R. Mylroie and H. Koenig, "Soluble acidic lipoproteins of bovine neurosecretory granules: Relation to neurophysics," *Journal of Histochemistry and Cytochemistry* 19 (1971): 738-746.

²⁷ T. S. Kolesova and L. M. Anisimova, "[Use of the Brdicka polarographic filtrate test for brain tumors]," *Zhurnal nevropatologii i psikiatrii imeni S.S. Korsakova* 75, no. 11 (1975): 1611-1613.

²⁸ <http://en.wikipedia.org/wiki/Neuroethology>

²⁹ Jörg-Peter Ewert, *Neuroethologie: Einführung in die neurophysiologischen Grundlagen des Verhaltens* (Heidelberg/Berlin/New York: Springer-Verlag, 1976).

³⁰ I. Dési, G. Dura, J. Szlobodnyik, and I. Csuka, "Testing of pesticide toxicity in tissue culture," *Journal of Toxicology and Environmental Health* 2, no. 5 (1977): 1053-66; <http://www.ncbi.nlm.nih.gov/pubmed/68121>

³¹ N.N., "Effects of Electrical Charge on the Filterability of Microorganisms and Neurotoxic Drugs," *California and Western Medicine* 27, no. 1 (1927): 86.

³² M. B. Heaton, "A technique for introducing localized long-lasting implants in the chick embryo," *Journal of Embryology and Experimental Morphology* 39 (1977): 261-266.

³³ H. R. Ruser, "[Monitoring systems in neurocardiology]," *Zeitschrift für die gesamte Hygiene und ihre Grenzgebiete*, 23, no. 6 (1977): 426-427.

It is possible that the first mention of the term **neuroimaging**, meant for techniques of representing the neural system, appeared in 1983.³⁴

Neurolinguistics, studying the neural mechanisms in the human brain that control the comprehension, production, and acquisition of language, was first coined as a term in 1985 by Harry Whitaker, who founded the *Journal of Neurolinguistics*.³⁵

It might be that the term **neurocomputing** (computational neuroscience), standing for the study of brain function in terms of the information processing properties of nervous structures,³⁶ was not used before 1987³⁷ (the *Neurocomputing* journal appeared in 1989).

Neurophilosophy (or philosophy of neuroscience) was most probably first used by Patricia Smith Churchland, the philosopher who wrote a then very influential book *Neurophilosophy*,³⁸ trying to bring closer philosophers' considerations and the recent discoveries by neuroscience.

The name of **neuroinformatics**, oriented toward "the organization of neuroscience data and application of computational models and analytical tools,"³⁹ appeared for the first time probably around 1992 in a paper published in the Berlin journal *Biomedizinische Technik*:⁴⁰ three years later, in 1995, the Institute of Neuroinformatics was established at University of Zurich.

Neurolaw studies the effects of discoveries in neuroscience on legal rules and standards. The inventor of the term was J. Sherrod Taylor, in 1995, who frequently had used to represent in court people with neurological injuries.⁴¹

While "neural engineering," "a discipline that uses engineering techniques to understand, repair, replace, enhance, or treat the diseases of neural systems,"⁴² might

³⁴ J.S. Meyer, H. Lechner, M. Reivich, and E.O. Ott, eds., *Cerebral Vascular Disease: 4. World Federation of Neurology, 11th Salzburg Conference. Excerpta Medica International Congress Series 616* (Amsterdam: Elsevier Biomedical Press BV, 1983).

³⁵ <http://en.wikipedia.org/wiki/Neurolinguistics>

³⁶ http://en.wikipedia.org/wiki/Computational_neuroscience

³⁷ Corporate Insights Incorporated Technical, *Neurocomputing: the technology, the players, the potential* (Englewood/Fort Lee, NJ: Technical Insights, 1987).

³⁸ Patricia Smith Churchland, *Neurophilosophy: Toward a Unified Science of the Mind-Brain* (Cambridge, MA: The MIT Press, 1989).

³⁹ <http://en.wikipedia.org/wiki/Neuroinformatics>

⁴⁰ G. Pfurtscheller, D. Flotzinger, and K. Matuschik, "Sleep classification in infants based on artificial neural networks," *Biomedizinische Technik: Biomedical engineering* 37, no. 6 (1992): 122-130.

⁴¹ J. Sherrod Taylor, "Neurolaw: Towards a new medical jurisprudence," *Brain Injury* 9, no. 7 (1995): 745-751.

⁴² http://en.wikipedia.org/wiki/Neural_engineering

have been used as a term before, **neuroengineering** seems to have come to be in 1995.⁴³

It might be that the term **neuroprosthetics** (for a discipline developing neural prostheses) was first used only in 1997,⁴⁴ although "neuroprosthetic" as adjective had been used already twenty years before, in a paper from 1977.⁴⁵

Neuroenergetics, as a discipline devoted to the research of brain energetic processes, probably was first named in a 1999 paper by Rothman and collaborators, published in *Philosophical Transactions of the Royal Society in London - Series B*.⁴⁶

In May 2001, the term **neurogenomics** appeared probably for the first time in medical literature,⁴⁷ designating a discipline studying the function of genes with respect to the structural elements, functions, and diseases of the nerve system.

A year later, in 2002, it seems that the denomination **neuroproteomics** was coined,⁴⁸ reserved for the science dealing with proteins and protein synthesis within the nervous system.

Neuromarketing – the application of neuroimaging methods to product marketing⁴⁹ (studying consumers' sensorimotor, cognitive, and affective response to marketing stimuli) – was coined by Ale Smidts in 2002.⁵⁰

In the same year, it seems that two more new neuro-terms were coined:⁵¹ **neuroethics**, meant for the neuroscience of ethics and the ethics of neuroscience (four years later, in May 2006, a Neuroethics Society came to be at a conference in Asilomar in

⁴³ H.M. Buettner, "Neuroengineering in biological and biosynthetic systems," *Current Opinion in Biotechnology* 6, no. 2 (1995):225-229.

⁴⁴ T. Stieglitz, H. Beutel, C. Blau, and J.U. Meyer, "[Flexible multichannel microelectrodes with integrated leads for use in neuroprosthetics]," *Biomedizinische Technik: Biomedical Engineering* 42 Suppl. (1997): 449-450.

⁴⁵ G.E. Loeb, A.E. Walker, S. Uematsu, and B.W. Konigsmark, "Histological reaction to various conductive and dielectric films chronically implanted in the subdural space," *Journal of Biomedical Materials Research* 11, no. 2 (1977): 195-210.

⁴⁶ L. Rothman, N.R. Sibson, F. Hyder, J. Shen, K.L. Behar, and R. G. Shulman, "In vivo nuclear magnetic resonance spectroscopy studies of the relationship between the glutamate-glutamine neurotransmitter cycle and functional neuroenergetics," *Philosophical Transactions of the Royal Society in London – Series B* 354 (1999): 1165-1177.

⁴⁷ J. Butcher, "Neurogenomics--a capital investment?" *Lancet* 357, no. 9266 (2001): 1420; K. K. Jain, "Applied neurogenomics," *Pharmacogenomics* 2, no. 2 (2001): 143-152.

⁴⁸ E. E. Wanker, "Hip1 and Hippi participate in a novel cell death-signaling pathway," *Developmental Cell*, 2, no. 2 (2002): 126-128.

⁴⁹ Dan Ariely and Gregory S. Berns, "Neuromarketing: the hope and hype of neuroimaging in business," *Nature Reviews Neuroscience* 11 (2010): 284-292.

⁵⁰ <http://en.wikipedia.org/wiki/Neuromarketing>

⁵¹ A. Roskies, "Neuroethics for the new millennium," *Neuron* 35 (2002): 21-23.

California), and **neuroesthetics**, as the study of the neural bases for the contemplation and creation of a work of art.⁵²

Neuroeconomics studies the neural underpinnings of making decisions, taking risks, and evaluating rewards. Probably the first to formulate the name was Paul Glimcher in 2003.⁵³

In 2004, **neuropedagogy** was first used in a conference paper by then Ph.D. student Kathryn Patten, who defined it as "the use of neuroscientific findings as a basis on which to theorize the role of emotions in teaching and learning."⁵⁴

In the same year of 2004, **neurorobotics** ("the science and technology of embodied autonomous neural systems")⁵⁵ appeared for the first time, at least according to the PubMed base,⁵⁶ although the adjective "neurorobotic" is five years older.⁵⁷

Neuroanthropology is even younger: coined by Douglas Lewis of University of Melbourne in 2006, it is supposed to study cultural influence upon the brain functioning.⁵⁸

Sometimes one term even has more different meanings. So **neuroevolution** is a form of machine learning that uses evolutionary algorithms to train artificial neural networks,⁵⁹ the Internet site presenting the chronicle of cognitive revolution in neuroscience,⁶⁰ or, at the same time, just an expression relating "evolution" in Darwinian sense to the nervous system.⁶¹ **Neuropolitics** (probably applied for the first time by Timothy Leary in 1977⁶²) is considered "the politics through which cultural

⁵² http://en.wikipedia.org/wiki/Neuroesthetics#cite_note-0; cf. also "The statement on neuroesthetics" by Semir Zeki (<http://www.neuroesthetics.org/statement-on-neuroesthetics.php>)

⁵³ Paul W. Glimcher, *Decisions, Uncertainty, and the Brain: The Science of Neuroeconomics* (Cambridge, MA: The MIT Press, 2003).

⁵⁴ http://www.iERG.net/confs/2004/Proceedings/Patten_Kathryn.pdf

⁵⁵ <http://en.wikipedia.org/wiki/Neurorobotics>

⁵⁶ J.K. Chapin, "Using multi-neuron population recordings for neural prosthetics," *Nature Neuroscience* 7, no. 5 (2004): 452-455.

⁵⁷ J.K. Chapin, K.A. Moxon, R.S. Markowitz, and M.A. Nicolelis, "Real-time control of a robot arm using simultaneously recorded neurons in the motor cortex," *Nature Neuroscience* 2, no. 7 (1999): 664-670.

⁵⁸ Alvaro Machado Dias, "The foundations of neuroanthropology," *Frontiers in Evolutionary Neuroscience* 2 (2010), 1-2.

⁵⁹ <http://en.wikipedia.org/wiki/Neuroevolution>

⁶⁰ <http://www.neurevolution.net/>

⁶¹ Cf. Gary G. Berntson and John T. Cacioppo, "The neuroevolution of motivation", in *Handbook of Motivation Science*, edited by James Y. Shah and Wendi L. Gardner (New York: Guilford Press, 2008), 188-200 (<http://psychology.uchicago.edu/people/faculty/cacioppo/jtcreprints/bc08e.pdf>).

⁶² Timothy Leary, *Neuropolitics: The Sociobiology of Human Metamorphosis* (Los Angeles: Starseed/Peace Press, 1977).

life mixes into the composition of body/brain processes,"⁶³ or "understanding of how the human brain organizes its political orientation"⁶⁴ (the most influential and revolutionary theses being that political views vary with psychological traits⁶⁵ and that voters' attitudes might be predicted by neuroimaging⁶⁶).

Here has not been made mention of the numerous terms using the *neuro-* prefix for other means than launching new disciplines, like, for instance, "neurotrauma," "neurobehavioral," "neuroaxis/neuroaxial," "neuroarchitecture," "neuro-enhancement," "neurogenesis," etc.,⁶⁷ even if some of them have been used for quite a long time (cf. *neurotic*, 1775; *neurosis*, 1776; *neuritis*, 1840; *neuropathy*, 1857; *neuroglia*, 1873; *neuron*, 1884/1891; *neuroticism*, 1900; *neurography*, meaning description of nervous structures, before 1913,⁶⁸ *neurotransmitter*, 1961; *neurorehabilitation*, *neurocritical care*, *neuroactive*, *neurofibril*, *neuropeptide*, *neurohumoral*, *neurohypophysis*, *neuroma*, *neurinoma*, *neuroblastoma*, *neurotoxin*, *neurohormonal*, *neurofibromatosis*, *neuromyelitis*, *neurodegenerative*, *neurosecretion*, *neuromuscular*, *neuroleptic*, *neuralgia*, *neurasthenia*, *neuritic*, *neurilemma*, *neuraminidase*, *neuraminic acid*, etc., etc., etc.).⁶⁹

When, actually, is justified to invent a new name for a scientific discipline? Obviously, when really a new discipline emerges. Is the recent "neuroization", then, justified? A simple answer would be: no, because the fields of interest and pursuit of the most of those "new" disciplines, actually, overlap. In their booklet wittily entitled *Neuro-mania*, the Italian neuropsychologists (cognitive psychologists) Paolo Legrenzi and Carlo Umiltà advocated the idea that neuropsychology (that is, their own discipline) could have provided basis for most of the fields of the new pseudo-disciplines.⁷⁰ It has to be said, however, that, for some sciences, the prefix *neuro-* may offer a rebirth (ethology, theology, etc.), while for some other, it sounds like an awkward caricature (e.g., neuroeconomics or neuromarketing).

⁶³ William E. Connolly, *Neuropolitics: Thinking, Culture, Speed* (Minneapolis/London: University of Minnesota Press, 2002), xiii.

⁶⁴ <http://neuropolitics.org/>

⁶⁵ Douglas R. Oxley, Kevin B. Smith, John R. Alford, Matthew V. Hibbing, Jennifer L. Miller, Mario Scalora, Peter K. Hatemi, and John R. Hibbing, "Political attitudes vary with physiological traits," *Science* 321, no. 5896 (2008): 1667-1670. "Individuals with measurably lower physical sensitivities to sudden noises and threatening visual images were more likely to support foreign aid, liberal immigration policies, pacifism, and gun control, whereas individuals displaying measurably higher physiological reactions to those same stimuli were more likely to favor defense spending, capital punishment, patriotism, and the Iraq War."

⁶⁶ Marco Iacoboni, Joshua Freedman, and Jonas Kaplan, "This is your brain on politics," *New York Times*, November 11, 2007. See also the criticism by Martha Farah, "This is your brain on politics? *Neuroethics & Law Blog*, November 12, 2007 (http://kolber.typepad.com/ethics_law_blog/2007/11/this-is-your-br.html)

⁶⁷ Cf. Berntson and Cacioppo, "The neuroevolution of motivation."

⁶⁸ <http://www.thefreedictionary.com/neurography>

⁶⁹ <http://www.etymonline.com/index.php?l=n&p=6>

⁷⁰ Paolo Legrenzi and Carlo Umiltà, *Neuro-mania: il cervello non spiega chi siamo* (Bologna: Il mulino, 2009).

Scientists researching the brain cherish the idea that their work is extremely important, unique, and indispensable. They often venture into other fields and sciences without feeling any inferiority complex, convinced that their knowledge on human brain be sufficient to understand and interpret everything. (It is true that sometimes neuroscientists also originated from other sciences: Francis Crick had been a chemist, working with the structure of hemoglobine and DNA, Gerald Edelman had discovered the structure of anti-body, and there have been neuroscientists who had previously received a Nobel Prize even for economy.) Modern neuroscientists are like ancient alchemists, believing they are up to discover the most important secrets of the life elixir and the philosophers' stone. Is not the hyperproduction of new names for (psudo)disciplines also a result of that arrogance?

In fact, nothing crucial has been discovered in neuroscience for quite a while, and the premordial entrapment in the mind-body problem still lasts: why, then, that explosion of "interest" in the brain at the end of the 20th and at the beginning of the 21st centuries? Is not it a contemporary variation of a historical periodical millenaristic movement, invoking a panacea for a society in general crisis? *Neuro-* seems to provide not only a desperate ultimate attempt at being original in science where everything has been said and done, but, moreover, a guaranty of attracting attention and simulating importance.

(Far away from a) Conclusion

The authors of this paper are fully aware of the incompleteness of their short overview: a more profound study would be needed in order to draw more significant and far-reaching conclusions (e.g., etimological approach may be additionally enriched by the analysis of the parts of the new-coined words with the *neuro-* prefix; analysis at orthographic and morphological level may be introduced, etc.)⁷¹.

What we can still see, nevertheless, is that, occasionally, "new" neuro-disciplines were emerging even before 1990. Some of them, like neurotheology or neuropolitics, were coined in the second half of the 20th century as literary figures rather than as serious new disciplines. After 1990, however, and especially during the last decade, new names have been imposed more ambitiously and aggressively: they, therefore, may be considered also less justified and more artificial, being produced within the boom of "the neuro-epoque". At the moment we do not see the end of the boom: there are so many old disciplines to be newly neuro-labeled.

⁷¹ We thank very much anonimous reviewers for this constructive comments.

Amir Muzur, Iva Rinčić

Neurokritika: prilog proučavanju etiologije, fenomenologije i etike uporabe i zlorabe prefiksa *neuro-*

SAŽETAK

Posljednjih nekoliko desetljeća, osim što je bilo proglašeno "desetljećima mozga" ili "desetljećima uma", svjedoči fascinantnom eksplozijom novih disciplina ili pseudodisciplina koje se odlikuju prefiksom *neuro-*. "Starim" specijalizacijama neurokirurgije, neurofiziologije, neurofarmakologije, neurobiologije itd. pridružile su se i neke koje mogu zazvučati pomalo nespretno, poput neurofilozofije, neuroetike, neuropolitike, neuroteologije, neuroantropologije, neuroekonomije i drugih.

Stavljajući ovu pojavu "neuroizacije" svih područja ljudske misli i prakse u kontekst uglavnom neopravdanih a svakako prevelikih – gotovo milenarističkih – očekivanja od znanosti o mozgu i umu potkraj XX. stoljeća, ovaj rad pokušava analizirati kada je uporaba prefiksa *neuro-* primjerena a kada dvojbena.

Ključne riječi: mozak, neuroznanost, tvorba riječi

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The adapted text on internal diseases in teaching students of medicine

ABSTRACT

The effective teaching of language for specific purposes to students of medical subjects depends on the accurate analysis of their communication needs, especially when obtaining medical education in a foreign language. The basic source of material for developing linguistic skills are the texts on internal diseases. This paper aims at analysing basic content, structural, language and compositional specifics of a type of text in academic literature for students who study medicine in Bulgarian. Its practical application is to provide some criteria for adapting authentic texts for the goals of teaching languages for specific purposes. The analysis is based on more than 30 original texts from the chapter on endocrine diseases in the textbook *Clinics of internal diseases*⁴. Sample tasks of the practical implementation of summarised text specifics in the process of teaching both Bulgarian and English as foreign languages to students of medicine have also been included.

Key words: endocrine diseases, text type, thematic structure of the text, structural units, specialized text, grammar and vocabulary, compositional plan of the text, developing communication skills.

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Introduction

The effective teaching of language for specific purposes (LSP) to students of medical subjects depends on the accurate analysis of their communication needs, especially when they obtain medical education in a foreign language. Foreign language students at the Medical University of Varna study medicine either in Bulgarian or in English. The academic texts on internal diseases constitute a natural source of material for developing students' psycholinguistic skills related to their professional qualification. Text adaptation for the needs of language teaching requires analysis and classification of its content, structure and language specifics.

Aims and objectives

The aim of this paper is to set up rather than to exhaust this vast and serious topic by: 1) **analyzing and emphasizing some basic content structural and language specifics** of a text type in the academic literature for students, learning medicine in Bulgarian, namely a text on endocrine diseases, and 2) to provide **examples of their practical application** in the teaching of language for specific purposes both in Bulgarian and English for medicine.

The observation is based on 30 original texts from the chapter on endocrine diseases from the textbook⁴ used by students at the university. Analysis is directed from the context to the text and is concentrated on language subunits. It is focused on the understanding of the text as a product of communication on the one hand, and on the other hand on understanding of the text as a process of selection and combination of language items which undergoes different stages². We find this approach more reasonable and more profoundly reflecting the text specifics as a language/ langue and speech/parole phenomenon.

Characteristics of the text on endocrine diseases

The specifics of the texts on internal/endocrine diseases considered as a communicative unit is determined to a great extent by the recipient and his/her competence (linguistic, discourse, text and thematic) and by the communicative goal - to present a given endocrine disease to an academic audience, define and classify it, and explicitly describe its characteristics in certain aspects which in the clinical theory (nosology) have been accepted as a standard for presenting a given nosological unit.

From a text linguistic point of view, each nosological unit, e.g. goitre (Grave's disease), happens to be a macro topic², the contents of which unravel into a text through a variety of mini topics, which can be exhaustively listed as follows:

Definition, Classification, Epidemiology, Etiology, Pathogenesis, Pathology, Clinical picture, Diagnosis, Differential diagnosis, Treatment, Prevention, Prognosis and Ability to work.

The topics thus presented in the text with the cluster of their interconnections and interrelations build a specific **centralized** hierarchical thematic structure. On the vertex of this thematic hierarchy stands the macro topic, from which stem a certain number of specific subordinated topics. These topics in turn can be subject to further specification. For example, the mini topic *Diagnosis* can be subdivided into an even more specific topic – *Differential diagnosis*.

Some of these mini topics - *Definition, Etiology, Pathogenesis, Clinical picture, Diagnosis, Treatment* – function as basic and compulsory for the text type analysed. They represent the minimum content areas that support each macro topic (title), related to the endocrine diseases. (Fig. 1.)

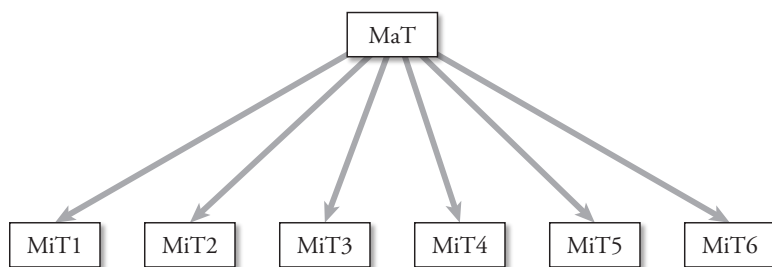


Fig. 1. (MaT – Macro theme/macro topic; MiT – mini theme/topic)

The rest of the mini topics – *Classification, Epidemiology, Differential diagnosis, Prevention and Ability to work*, function as elective (supplementary) and may not always be present in the content of some of the academic literature discussed. Occasionally as a variant, the mini topics included in the structural plan of the text are combined together two by two in a logically consistent manner, such as *Definition and Classification, Frequency and Etiology, Etiology and Pathogenesis, Diagnosis and Differential diagnosis, etc.*

In the linear sequence of the text, each mini topic mentioned above is explicitly formulated in a **thematic utterance**. It is a short nominative sentence (heading) graphically organized in a new paragraph and highlighted with a specific font. It designates a thematic core around which a relatively autonomous content-structural and supra-phrasal unit (SPU) or mini-text is formed². A mini topic is presented and developed in it that stems from the common thematic structure of the text. Comparative analysis shows that the separate mini texts with a common mini topic (e.g. *Eti-*

ology, Clinical picture, Diagnosis, Differential diagnosis) in the textbook texts may vary in length usually encompassing several paragraphs. But the typical communicative task of defining an illness, presenting complex causes of its onset, describing its clinical picture, diagnostic methods, etc., determines a specific selective choice of language devices, which are easily recognizable in the mini text framework.

Some **functional** and **lexico-grammatical sentence patterns** tend to emerge on this level. These models are characterized by a rich synonymic variation of verbal and syntactic form.

MText Epidemiology: ... can be found in ...; ... is spread in ...; % ofsuffer from; It affects most frequently

MText Etiology: ... is caused by...; ... develops because of...; ... most frequently is due to/ leads to ...; ... is a result of the interaction between; The reasons for are.....; is mainly responsible for the onset of ...; Factors that unlock the illness are considered ...

MText Clinical picture: ...begins (slowly, usually, imperceptibly) with...; ... causes/explains the development of a complex of symptoms such as ...; Typical symptoms of ... are ...; The most prominent symptom of is; The clinical picture of ... is based on the syndrome of ...; A typical/major clinical sign of ... is; ... is characterized by a detailed clinical picture; Its final stage ... presents with ...

Another characteristic feature of the functional models/patterns above, besides their rich variability, is their structural and organisational role in the mini-text – they introduce the mini-topic, determine its subsequent development as well as the logical connections between paragraphs that construct this relatively complete excerpt of the text.

Example of MText: Clinical picture (Goitre)

- (1) Goitre **presents with a detailed clinical picture** as a result of practically affecting all organs and systems
.....
.....
- (2) **The changes in the following organs and systems** are particularly impressive:
.....
.....
- (3) **Other changes:**
.....

The typical mini text structure in the type of text on endocrine diseases thus analysed is often an ‘open’ version of the so called framework structure - it has a marked beginning and development, but there is no summary at the end of the text unit.

The framework structure can also be encountered although this is quite rare. In both cases the graphic design layout of the mini text plays an important role through the information which is segmented into paragraphs, suitably numbered or designated by other symbols.

An essential characteristic related to the development of the mini texts as a major constituent of the analysed text type, is represented by a number of terminological and specialized vocabulary and phraseology of high frequency. The choice of the necessary lexical devices is determined by the specifics of each topic in the first place. Naturally, the lexical selection depends on the individual abilities and preferences of the author, but while trying to understand the text, the recipient perceives these combinations as similar in meaning, no matter whether they are situated in a close proximity or at a distance, that is whether they have a **common semantic denominator**, which is demonstrated in each of them.

The **Clinical picture** mini text presents a good example for the most common terms: *nonsymptomatic period, onset symptoms, advanced symptoms, pronounced symptoms, asymptomatic progress of a disease, neurological symptomatics, acute hormonal deficiency, complete/partial clinical picture, initial stage of a disease, main stage of a disease*. On the mini text of **Diagnosis** we observe *history of a disease, physical examination, diagnostic investigations, laboratory data, X-rays, hormonal tests, instrumental investigations, CT, scintigraphy, functional tests*.

The **linguistic cohesive devices** that help the presentation of content, establish the logical sequence of sentences and the connection between the paragraphs, are yet another characteristic feature of the mini text. Lexical and **terminological repetitions** are used: anaphoric pronoun forms (*this, that, such, those, them, its*), combined with lexical repetitions (*these symptoms, these impairments/disorders, such complaints, such a change*); adjectives (*the last, the former, the latter, the previous*), ordinal numbers (*first, second, third*), combinations of demonstrative pronouns (*some of these, those*), cohesive expressions, mainly prepositional-nominal collocations with a connective function (*as a result of, in the course of time, part of*) and connective sentences (*it is difficult, it has been established so far*).

It is important to emphasize the frequent use of conjunctive adverbs such as *mainly, rarely, primarily, characteristically, typically, thus*. **Connective sentences with modal meaning** are also typical, e.g. *it is possible, it is important*. There is a marked presence of some connective sentences, which contain a summary of the information given in the text: *it is recommended, it is suggested that, this is particularly obvious, initially it was considered, for the time being it is accepted that, according to this hypothesis, it is widely accepted...*

An essential characteristic feature of the text type used in the subject area of endocrine diseases is its **logical compositional plan**, which involves a specific logical sequence of the mini texts in the framework of the entire narrative.

The linear segmentation of several structural units (parts that carry certain information value in the text as a whole) in a definite logical sequence, emerges as a common principle of the composition of the analysed text type. The comparative analysis of the texts on endocrine diseases shows the existence of a compositional matrix, which has been commonly accepted in nosology as a well-established standard for describing a disease.

Deviations from this matrix as a result of the subjective approach of a given author have not been detected. The complete description of the compositional plan can be seen in the following figure. (Fig. 2.)

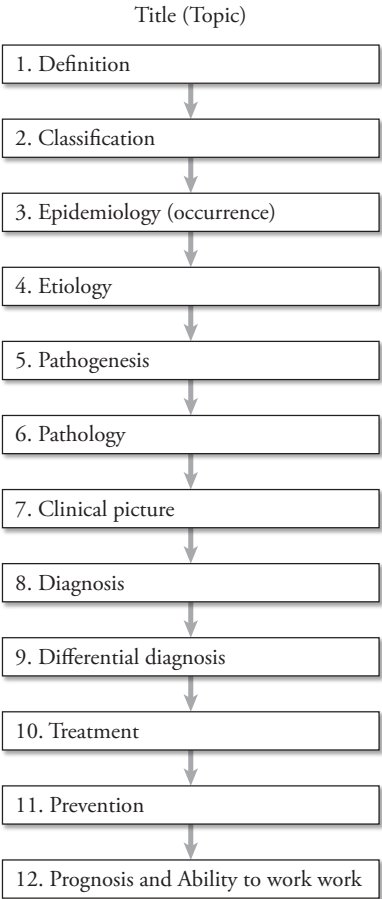


Fig. 2.

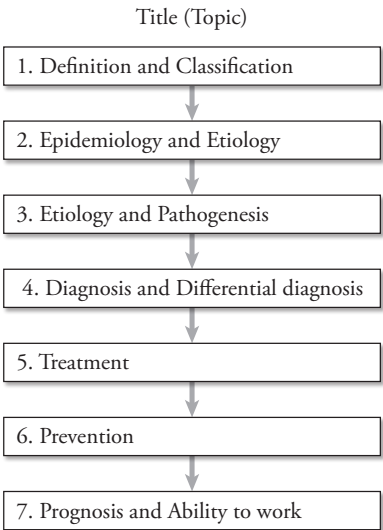


Fig. 3.

There exist different versions of the listed structural components combined two by two (*Definition and Classification; Epidemiology and Etiology; Etiology and Pathogenesis; Diagnosis and Differential diagnosis*), without impairing the objective criterion of the logical sequence mentioned above. (Fig. 3.)

Sample tasks from English textbooks

Examples from the textbooks **English for Medicine**⁷ and **English for Pharmacy**⁶ based on the specific features of the text type of endocrine diseases are demonstrated below. Similar activities to the ones with the students who study Bulgarian can be observed from the teaching of English for medicine, pharmacy, dental medicine, obstetrics to multicultural groups at the same university. The textbook authors have taken into consideration Scott Thornbury's definition of genre in which he points out that "A genre is a text-type whose features have become conventionalized over time."⁸ In the context of teaching foreign languages for medical purposes a description of a disease is an example of a specific genre. Thus "A genre analysis approach not only respects the integrity of the whole text but regards the features of a text as being directly influenced by its communicative function and its text of use."⁸

The teaching of Bulgarian to students of medicine takes place in the course of a few years and includes 120 contact hours per academic year, while only 60 contact hours are allotted to teaching English. Yet sufficient time is devoted to raising awareness of the text structure, text patterns and logical compositional description plans of different diseases. When students learn how to describe a given disease in English they are also asked to identify the text structure. Only this time texts are usually shorter and the above mentioned rubrics are typically five in number: *Definition, Causes, Signs and Symptoms, Diagnosis* and *Treatment* or the more modern and wider term *Disease Management*. Occasionally we may have *Prognosis* and *Prevention* as well. Typical tasks that students perform are to read the paragraphs of a text silently and to identify the meaning of each paragraph. Thus the text structure is elicited from the students. A subsequent activity could be for students to rearrange a jumbled paragraph applying the model mentioned above. Then, as a homework assignment, they have to choose a disease and write a short description following the logical pattern they have already discovered. Here are some examples of tasks to be performed in English for Medicine and English for Pharmacy.

English for Medicine⁷

Reading

Task 1. Below is a textbook excerpt about pneumonia. Having in mind the structure of such a text type from the previous unit, arrange the paragraphs in their logical order. Write a subtitle for each paragraph.

1 – 2 – 3 – 4 – 5 –

Pneumonia

a	Diagnosis follows a physician's examination and, usually, a chest X-ray. A specimen of the sputum is examined and cultured to identify the infective organism. Sometimes a white blood cell count may help to determine whether the infection is caused by bacteria or by a virus.
b	Pneumonia is inflammation of the lungs, usually caused by a bacterial, viral, or fungal infection or from inhaled matter. If infection spreads down the bronchioles, it is known as bronchopneumonia. If only one lung is inflamed, it is called lobar pneumonia. Before the development of antibiotic drugs in the 1940s, pneumonia killed about one third of its victims. Today, with proper medical treatment, over 95% of all patients recover. But pneumonia still ranks as a leading cause of death in the USA.
c	In bacterial pneumonia, the patient develops the symptoms of a cold followed by a sudden shivering attack, sputum that is often bloody and a high fever (40°C) with rapid respiration and pulse rate. The patient feels pain on one side of the chest. Vomiting and diarrhoea may occur; confusion is common. In other forms of pneumonia, especially among elderly patients, the symptoms may develop slowly, with clear evidence of bronchitis and a worsening cough, often with bloodstained sputum. Headache, muscle aches, and cyanosis are common. Progress depends on the individual's resistance to the type of infection. In elderly or weak patients death is possible. Children or babies show few symptoms suggesting a chest infection. But the child is obviously ill and may collapse.
d	Antibiotics are used in the treatment of bacterial and fungal infections. Breathing exercises and percussion to shake the chest wall encourage the patient to cough up sputum. If the sputum is thick and sticky steam inhalations may also help. A seriously ill patient may need oxygen therapy. Painkilling drugs are prescribed if the patient has pleurisy. Most patients suffering from mild forms of pneumonia can be treated at home with rest, antibiotics, and breathing exercises.

e	<p>In most cases, a person gets pneumonia by inhaling small droplets that contain harmful viruses or bacteria. These droplets are sprayed into the air when an infected person coughs or sneezes. Many cases of pneumonia result when bacteria normally present in the mouth, nose, and throat invade the lungs. The body's defence mechanisms ordinarily prevent these bacteria from reaching the lungs, but if the defences weaken enough, severe pneumonia may develop. Such infections occur most often among patients hospitalised for some other serious illness. Conditions that increase the risk of pneumonia include emphysema, heart disease, alcoholism, and other diseases that weaken the body's resistance to infections. Children and the elderly also have a greater chance of getting pneumonia. A wide variety of viruses cause pneumonia, including some of the same ones responsible for influenza and other respiratory infections. Many types of bacteria also cause pneumonia; most cases of bacterial pneumonia result from the bacteria pneumococci, also known as <i>Streptococcus pneumoniae</i>. In the lungs, microbes that cause pneumonia lodge in the air sacs, where the blood normally exchanges carbon dioxide for oxygen. There they multiply rapidly and the air sacs soon fill with fluid and white blood cells produced by the body to fight infection.</p>
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English for Pharmacy⁶

Reading and Vocabulary

Task 1. Read the texts about rheumatoid arthritis and fibromyalgia and label the paragraphs with appropriate headings. Note how the texts are structured. What is the reason behind this way of structuring?

	Rheumatoid arthritis	Fibromyalgia	
	<p>Arthritis is a disease that causes pain and loss of movement of the joints. The word "arthritis" literally means joint inflammation (arthr = joint, -itis = inflammation), and refers to more than 100 different diseases. Rheumatoid arthritis can be one of the most disabling types of arthritis. Its course varies from a few symptoms to severe and painful deformities.</p>	<p>Fibromyalgia is a real medical condition. It includes all-over muscle pain that can make it hard to do even day-to-day tasks. The pain may vary from mild to severe. The muscle pain from fibromyalgia is one of the most common types of chronic widespread pain in the U.S. People with fibromyalgia may not know what is wrong with them or what is causing their pain. They may feel alone.</p>	

	<p>The cause of rheumatoid arthritis is unknown. Some scientists feel that it may result from an infection, but there is no evidence that it is contagious.</p>	<p>The exact causes of fibromyalgia still are not known. However, recent research suggests that changes in the central nervous system may be responsible for the chronic pain that comes with fibromyalgia. Nerve damage may occur for a few reasons, e.g. a viral or bacterial infection. Nerve damage could also be linked to injury.</p>	
	<p>For whatever reason, the joint lining becomes very inflamed and thickened, slowly destroying cartilage and bone. Rheumatoid arthritis typically affects the small finger joints, wrists, knees and toes. All joints of the body, however, are potential targets. Along with swelling and pain of joints, some of the early symptoms of the disease may include fatigue, loss of appetite, weight loss and fever. Stiffness in the joints and surrounding muscles that lasts for several hours after getting up in the morning is a regular symptom. Sometimes the disease involves other organs, causing damage to the heart, lungs, eyes, skin and nerves.</p>	<p>People with fibromyalgia typically have many different types of symptoms. Some of the most common symptoms may include:</p> <ul style="list-style-type: none"> • Chronic widespread muscle pain • Muscle soreness • Tenderness • Flu-like aching <p>Other symptoms may include:</p> <ul style="list-style-type: none"> • Problems sleeping • Morning stiffness • Fatigue • Dull pain in the muscles 	
	<p>Rheumatoid arthritis may take a long time for a definite diagnosis to be reached.</p>	<p>Even though the pain of fibromyalgia is hard to ignore, it may be difficult for some doctors to identify this condition. For example, no blood test or X-ray can be used to help detect it. Plus, many of the symptoms of fibromyalgia are also found in other conditions, such as rheumatoid arthritis. According to the American College of Rheumatology (ACR), to be diagnosed with fibromyalgia, a person must have widespread pain lasting for at least 3 months, plus pain in at least 11 of 18 parts of the body called “tender points.”</p>	

<p>The goal of treatment is to halt the inflammation and prevent the destruction of joints. Doctors now have many ways of treating rheumatoid arthritis. Large doses of aspirin or aspirin-like drugs can be effective in reducing pain and inflammation. If the arthritis is aggressive, drugs called DMARDs or SAARDs (disease-modifying antirheumatic drugs, or slow-acting antirheumatic drugs) such as the anti-malarials may be used. Certain immunosuppressants biologic response modifiers, corticosteroids, or gold therapy may be used. All these drugs require close supervision, since they may have hazardous side effects.</p> <p>Rest, heat and physical therapy are important adjuncts to drug therapy. A healthy diet and exercise also helps patients retain mobility and strength, maintain or lose weight, sleep better, and even help maintain a positive attitude.</p> <p>Although there is no scientific evidence that eating or not eating certain foods reduces or aggravates symptoms of rheumatoid arthritis, some recent studies indicate that omega-3 fatty acids (found in certain fish and plant seed oils) may reduce the inflammation of rheumatoid arthritis.</p>	<p>LYRICA® (pregabalin) capsules CV is indicated for management of fibromyalgia and not for improvement in specific symptoms such as problems sleeping and fatigue.</p> <p>Exercise, such as walking, jogging, biking or gently stretching muscles may help ease the pain of fibromyalgia. So can having good emotional support and medication. People with fibromyalgia have more treatment options than they did in the past.</p> <p>Fibromyalgia can be treated by several types of healthcare providers. Family physicians, general internists, and rheumatologists are the doctors who typically treat fibromyalgia.</p>	
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For Your Portfolio⁶

Choose a disease or disorder of the musculoskeletal system. Following the pattern already used for describing a disease, write a short description paying special attention to its treatment and management.

In English classes attention is also paid to cohesive devices, anaphoric and cataphoric references, as well as the thematic progression in paragraphs but these activities are not so frequently used when teaching English as they are when teaching Bulgarian for the reasons mentioned above.

Conclusion

The specific characteristics of the text type on endocrine/internal diseases presented above outline some criteria for the selection and adaptation of authentic academic texts with the aim of teaching a foreign language for medical purposes to students who study medicine in Bulgarian or in English. Lecturers are expected to make adequate decisions and implement them appropriately in the process of teaching, learning and acquiring linguistic skills based on a specialized text as a basic communicative unit in the academic environment.

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Natural recycling of grammar while teaching medical English

ABSTRACT

In the last few years Varna Medical University has introduced several new specialties, thus challenging lecturers to design new courses of English for health care management, dental medicine, pharmacy, obstetrics, etc. Each discipline has its own range of essential topics, terms and grammar to acquire. The structure of the language taught in these subjects, although very similar, still needs appropriate contexts to naturally recycle grammar items. Students' groups are traditionally mixed level in terms of language proficiency, and multicultural with diverse educational backgrounds. The materials designers and textbook authors have to focus on natural contexts from each narrow specialty in medicine. The aim of this article is to explore and demonstrate how one and the same grammar item is practised and revised in different contexts typical for the specific discourse of the medical specialty.

Key words: mixed-level groups; recycling of grammar; natural context; English for Medicine, Dental Medicine, Obstetrics and Pharmacy; practice for accuracy; using language for fluency

Introduction

Students who study English for Medicine, Dental Medicine, Obstetrics, Pharmacy and other Health Care subjects at Varna Medical University in Bulgaria are usually in mixed level groups. The syllabus traditionally includes topics that allow students to build, expand and enrich their vocabulary in their area of specialization. Together

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with this primary focus on specific terminology we try to revise and recycle the grammar they learned at high school in a meaningful and appropriate context. Since they are at different levels of language proficiency, students are at a different stage of language acquisition and understandably they have different needs. Because it is difficult to find adequate books on the market that meet the special requirements of this specific context of teaching and learning English for medical purposes, there emerges a dire necessity for designing and writing our own materials. This situation is challenging both for lecturers and students of English for specific purposes.

When writing a new textbook, some of the key issues to address are what topics to include; what conceptual sequence to offer (our students are 1st and 2nd year at University); which grammar items to recycle and reinforce; how to select a natural context for consolidation of grammar; in what way to provide access to different types of discourse, etc.

The aim of this article is to share ideas about the process of choosing grammar points to teach and recycle, and of designing activities for *awareness raising, practicing and providing contexts for natural use* of the target grammar structures. The grammar thus analysed has been included in the textbooks written by teachers at the university and implemented in the course of nearly 10 years.

Grammar and Methods

The history of language teaching and learning methodology in essence refers to the changing concepts of teaching grammatical structures.

One of the traditional methods for learning languages in the past was the *Grammar-Translation* method, originally used for teaching and learning Latin and Greek and later transferred to teaching and learning other foreign languages. Language learning was thought to consist of “little more than memorising rules and facts in order to understand and manipulate the morphology and syntax of the foreign language”.¹² The Grammar-Translation method unfortunately did not prepare learners to use the target language.

So following the swing of the pendulum in methodology the so called *Direct Method* emerged. No translation was allowed anymore and teachers taught structures using realia, pictures or pantomime. The Berlitz school today still uses this inductive way of teaching grammar in which students are presented with examples and encouraged to figure out the rule. When applying this method “An explicit grammar rule may never be given”.⁷

With the *Audio-Lingual Method* “The major objective of language teaching should be for students to acquire the structural pattern through listening and repeating patterns and modelling the teacher”⁷. Most linguists, methodologists and teachers of English believed that the learning of a foreign language should be the same as the acquisition of the native language. Since students do not need to memorise rules in order to use their own language, they do not need such rules to use the target language. But using the foreign language, students will begin to figure out the rules that govern it. The idea of the existence of a *natural order* of learning structures in a language led to listening and repeating long lists of drills such as substitution and transformation drills.

In *Suggestopedia* developed by the Bulgarian psychologist Lozanov¹², the teacher should present and explain the grammar and vocabulary, but not dwell on them. One way that meaning is made clear is through mother tongue translation.

Penny Ur, an author of methodology books such as *Grammar Practice Activities*¹⁴ and teacher trainer, also admits that there is no doubt that a knowledge of grammatical rules, whether implicitly or explicitly taught, is essential for the mastery of a language.

Later on the *Communicative approach* was developed. Its adherents acknowledge that structures and vocabulary are important. The theory of language has changed and language was no longer viewed as *a system or code to be mastered* but as a *vehicle for communication*. However, the feeling was that “grammar and vocabulary *only* will not prepare students for communication. Students may know rules for language *usage*, but will be unable to *use* the language”⁷. The author Larsen-Freeman claims that an important part of communicative competence is to learn to use language forms *appropriately*, the grammar and vocabulary that the students learn “follow from the function, situational context and the roles of the interlocutors”.⁷

David Nunan in his book *Designing Tasks for the Communicative Classroom*¹⁰ provides an overview of approaches and methods that clearly delineates the most important methods and approaches concerning the *theory of learning* and *theory of language*. Thus one can follow the way *teaching grammar* has changed according to the development of concepts and understanding about these theories.

“*The Lexical approach* proposes a greatly diminished role for what is usually understood by ‘grammar teaching’. Equally, there is an enhanced role for grammar work which is radically different. The new style of grammar is primarily receptive, and because it is based on raising student’s awareness, is powerfully student- rather than teacher- centred”⁸. Michael Lewis suggests replacement of the presentation-practice-produce paradigm with observe-hypothesize-experiment (O-H-E) that allows stu-

dents to explore and observe how the language works, then hypothesise about the possible rules. Thus they “write their own rules” and then experiment while using the language.

One of the more recent and in-depth discussions of grammar is provided by Scott Thornbury in his book *How to Teach Grammar*. In his view “In the last century the architects of language teaching methods have been preoccupied with two basic design decisions concerning grammar:

Should the method adhere to a grammar syllabus?

Should the rules of grammar be explicit?”¹³

The author recognises that “In fact, no other issue has so preoccupied theorists and practitioners as the grammar debate, and the history of language teaching is essentially the history of the claims and counterclaims for and against the teaching of grammar.”¹³

At the beginning of the 21st century, *The Common European Framework of Reference for Languages - Learning, Teaching, Assessment* was designed by a number of European linguists and methodologists to facilitate mutual recognition of qualifications, and communication concerning objectives and achievement standards.⁹ Frank Heyworth discusses this document in his article *Why the CEF is important* and answers the question “What do we mean by learning a language”. He claims that “The emphasis throughout the CEF is on how languages are used and what learners/users can do with the language – on language being *action-based*, not knowledge-based”.⁹

Today we have all the range from grammar obsessed teachers at one end of the continuum to grammar phobics who claim: “I never teach grammar”. Hence in this post-method era of language teaching, teachers of English have to be eclectic and teach grammar according to their educational context.

What to Teach When Teaching Grammar

One of the best and most concise answers to this question was given by Jeremy Harmer. He said that “Whatever the level of the students and however language study is organised, there are four things that students need to do with new language: *be exposed* to it, understand its *meaning*, understand its *form* (how it is structured) and *practice* it.”⁵ By practice we understand *use* the language appropriately, both accurately and fluently.

How to Teach Grammar

Which approach to teaching grammar structures should be implemented in an ESP educational environment depends on a number of factors such as age of students, previous language learning experiences, personal learning style, type of grammar item to be taught, time available for its internalisation, etc.

A deductive approach to grammar teaching usually starts with the presentation of a rule, then giving some examples that demonstrate how this rule is applied. *An inductive approach* to grammar teaching would start with some examples from which students infer the rule. Some methodologists prefer the term *discovery learning*.

Research suggests that the more explicit or overt teaching of grammar is appropriate for adult learners who are able to make a conscious effort to internalize whole chunks of language, while young learners should be taught implicitly, in a covert way so that they may acquire language in context without focusing on rules or metalanguage they would not understand.

For the purpose of revising and consolidating grammar in our context of teaching English for medical specialties we have adopted a more “fluency-to-accuracy” sequence. “...the learning cycle begins with the meanings that the learners want to convey. They try to express these meanings using their available resources... through successive stages of trial, error and feedback, the learner’s output is fine-tuned for accuracy.”¹³ Sometimes marrying a task-based approach with the traditional grammar syllabus seems to be the best solution.

Implementing the Theory

Having outlined the major approaches to teaching grammar and how we decided on incorporating it in the course books for medical English we would share one of the most difficult tasks for us as textbook writers, that of identifying natural contexts in which the grammar items we aim to reinforce are typically used. To demonstrate the selection of natural contexts for consolidation of grammar, we shall give some examples, following the way one and the same grammar structure is recycled in different medical specialities such as medicine, dental medicine, pharmacy, etc. For more adequate exemplification we have decided to choose a grammar item that has been included in all the course books analysed. Thus we will be able to discuss the choice of natural contexts to reinforce the same grammar structure in situations pertinent to the different areas of health care: *Comparative and Superlative Degree of Adjectives*. Having considered in detail the type of activities suggested in the various course books we have designed, we came to the conclusion that basically three kinds

of activities are observed in them: awareness raising of grammar that follows a fluency-oriented activity; grammar practice for accuracy, and grammar use for fluency.

Awareness Raising of Grammar

Students of medicine are traditionally high achievers and have a good level of English. What most of them need is to extend their vocabulary bank of medical terminology but occasionally there are students who need more focused practice of grammar as well. From the very first unit, which focuses on comparing men and women in terms of who make better doctors, students are allowed to practice comparative and superlative degrees of adjectives. They either listen to or read a text which allows *awareness raising* of grammar in a natural context. Students are offered texts for listening or reading that provide the so called ‘roughly-tuned input’. Usually the reading comprehension tasks focus first on fluency and then on accuracy, especially when we notice that some students have problems with a given grammar point. Students first react to the text on a conceptual level and then we focus their attention on the way language works and the way it is used in a specific area. So they observe the text in detail and draw conclusions on how adjectives are used. Since groups are mixed level, for some it is just recycling of grammar while *using* it naturally, but for others there is a greater need for more *practice*.

Students of dental medicine experience a similar *awareness raising* of comparative and superlative degrees of adjectives in a context describing dental structures: they read about enamel, dentine, pulp and compare and contrast these materials in terms of which is softer, harder, the most durable, etc.

In obstetrics the same grammar item is included in a text about some world records on the smallest and the heaviest baby born alive. In other cases, after examining several separate sentences or a whole text that is saturated with lots of examples of how a given grammar point is used, students come to a conclusion how the grammar item works. They highlight the grammatical forms in context and the respective rules are elicited, usually from more advanced students.

Here is a sample of an awareness raising activity from the *English for Medicine*³ book, Unit 1:

Task Read the above text again and underline the forms expressing degrees of comparison. How are they formed?

Another example of an awareness raising activity may be found in the *English for Pharmacy*² book, Unit 4.

Task Read the sentences describing pain and drugs that go with it and say which is the typical grammar item revised.

1. This is the strongest painkiller available without prescription.
2. Women giving birth usually find that the epidural is the most effective pain relief.
3. Yesterday the pain was more severe than it is now.
4. These laxatives are milder than those.
5. He looks much worse today. The medicines he is taking don't seem to work.

Grammar Practice for Accuracy

Once the teacher has raised students' awareness of grammar in some less advanced groups, it may be necessary to devote some time for students to get used to the grammar forms with a focus on accuracy. In our case this sometimes holds true for students studying obstetrics. For that reason activities based on the form have been integrated in the appendix at the end of each course book analyzed. When teachers realize that students need more practice on accuracy and better understanding of how the form works, they resort to such controlled accuracy-focused practice of form on a word level. Basically these are supplementary activities for less advanced students.

English for Obstetrics¹, Appendix, Unit 4

Adjective	Comparative	Superlative
		the biggest
Small		
	more / less painful	
	heavier	
Bad		
		the best
	more	
Little		

Along with these very controlled activities, a more common type is presented by tasks that practice grammar on a sentence level. At this stage the activities are similar in the different textbooks, e.g. **Open the brackets and provide/supply the proper comparative and/or superlative degrees.**

English for Medicine³, Unit 1

Task Complete the sentences to make logical statements using the appropriate degree of comparison of the words in brackets.

1. Women are 2-3 times (likely) _____ men to suffer from depression in part because women's brains make (little) _____ of the hormone serotonin.
2. (Far) _____ studies are necessary to investigate the neurophysiological mechanisms of the disease.
3. Women smokers are (likely) _____ to develop lung cancer than men smokers, at the same level of exposure. Women are (susceptible) _____ to the carcinogens in cigarettes.
4. Of all the factors that may cause the disease, the social environment has (little) _____ importance.

English for Dental Medicine¹¹, Unit 11

Task Fill in the appropriate forms of comparative and superlative degree of the adjectives given in brackets.

1. Enamel is (a) _____ (thin) at its border and (b) _____ (thick) at the cusp.
2. Dentin is _____ (soft) than enamel.
3. Enamel is _____ (hard) substance in the body.
4. Cellular cementum is _____ (permeable) than cementum.
5. Enamel is _____ (sensitive) as dentine and pulp.

English for Obstetrics¹, Unit 4

Task Complete the sentences with the correct form of the adjectives given in brackets.

1. The _____ mother is known to be from Brazil. (young)
2. The _____ woman in Bulgaria to give birth after IVF comes from Rousse. (old)
3. The baby in the crib seems to be _____ and _____ than the one in the incubator. (strong, healthy)

4. Baby girls are usually _____ than baby boys but people say they are _____ to raise. (small, difficult)

Using Grammar for Fluency

A third and perhaps most useful type of activities are those focused on students using English to express themselves. Thus spoken production on a sentence level or longer narratives and descriptions are produced. When it comes to the rubrics **For Your Portfolio**, students write reports and essays on given topics where they can use the language grammar and vocabulary for expressing their thoughts and ideas in a cohesive and coherent way.

Here is an activity from *English for Pharmacy*², Unit 4, that allows pharmacy students to describe drugs by comparing how *expensive*, *effective* and *reliable* they are.

Task Compare the medications given in the table by using the proper comparative and superlative degrees. Then write your own true sentences about drugs you know and their effect.

Type of drug	Effective	Side effects	Cost
Aspirin	***	**	*
Diclofenac	****	**	**
Ibuprofen	***	*	***

Diclofenac is _____ (effective).

Aspirin has _____ (side effects) than Ibuprofen.

Diclofenac is _____ (cheap) than Ibuprofen.

Ibuprofen is much _____ (expensive) than Aspirin.

The difficulty for non-native teachers of English as materials developers arises from the need to provide a natural context, usually with some support, both verbal and non-verbal. Here are some activities from different medical English course books that exemplify such contexts.

A. English for Medicine³

Task Look at the table from the WHO Statistics estimates for 2002 about men's and women's life expectancy for Bulgaria and other countries and in pairs write sentences comparing life expectancy between the different countries.

Country	Healthy life expectancy at birth	
	males	females
Afghanistan	35.3	35.8
Australia	72.6	74.3
Bulgaria	64.6	66.8
Nigeria	41.3	41.8
United Kingdom	70.6	72.1
United States	69.3	71.3

B. In English for Dental Medicine¹¹, Unit 20, there is a text describing types of fillings. Students have to compare restorative dental materials in relation to their durability, cost, and texture. They generate longer descriptions practicing contextualised comparative and superlative degrees with focus on the semantics, not the form, thus enhancing their fluency in English.

C. In English for Obstetrics¹, Unit 3, there is an activity which helps to trigger students' expressing personal opinion. Then they write their own composition about the hospital job they like best. It is common practice to first consolidate the language by speaking before proceeding with a more creative writing task.

Task Think about these questions. What is your opinion? Answer giving complete sentences paying attention to the adjectives and their degrees of comparison.

Which hospital job...

is the most difficult physically?

seems to be the easiest and most pleasant?

is mentally the hardest?

is most rewarding?

needs the greatest responsibility?

would you least like to do?

should be better paid?

is most highly respected?

D. English for Pharmacy²

While comparing prescription forms used in different English speaking countries, students are encouraged to take an attitude of enquiry and analyze what the trends are, and they come up with observations on cultural issues while using comparative and superlative forms of adjectives. For instance, by comparing the two prescription forms below, they may draw the conclusion that in English speaking countries the patient details precede those belonging to the doctor. This may be explained historically but it also may be due to psychological reasons. There is yet another more recent prescription form used in Bulgaria which is more detailed and closer to the sample from the English speaking country.

<p>PRIMARY CARE ASSOCIATES <i>1138 Wellness Rd, Colorado (413) 999-1817</i></p> <p>Name: Jane Darnley Date 8/11/2011 Address: 11, Salisbury Lane. Age/Wt _____</p> <p><i>RX Doxycycline 100 mg</i> <i>Disp #15</i> <i>Sig: Take 1 capsule bid x 7 days</i></p> <p>_____ Mimi Ryan, ARNP</p> <p>Dispense as Written Substitution Permissible Refills <u> 0 </u> Per protocol: Dr. Everett</p>	<p>Министерство на здравеопазването</p> <hr/> <p>Лекар (наименование на лечебното заведение) гр.(с) год.</p> <p>Rp.</p> <p>Лекар: (подпис и печат)</p> <p>за от. гр/с община, област ул.</p>
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Similarly students of pharmacy perform an activity in which they are trying to read and discuss different job advertisements thus comparing and contrasting the different positions available. They may also be involved in reading and interpreting graphs/charts as the one below. Usually questions are added to provide both guidance and support. They help students to generate their own language when compar-

ing and contrasting differences in average hourly wages for pharmaceutical specialists. Besides the natural use of English, such activities develop students' observation skills, their abilities to concentrate precisely, to reason and summarize. The questions below provide a scaffolding that supports the students' interpretation of the graph.

Task. Look at the diagram and answer the questions.

Which professions are compared?

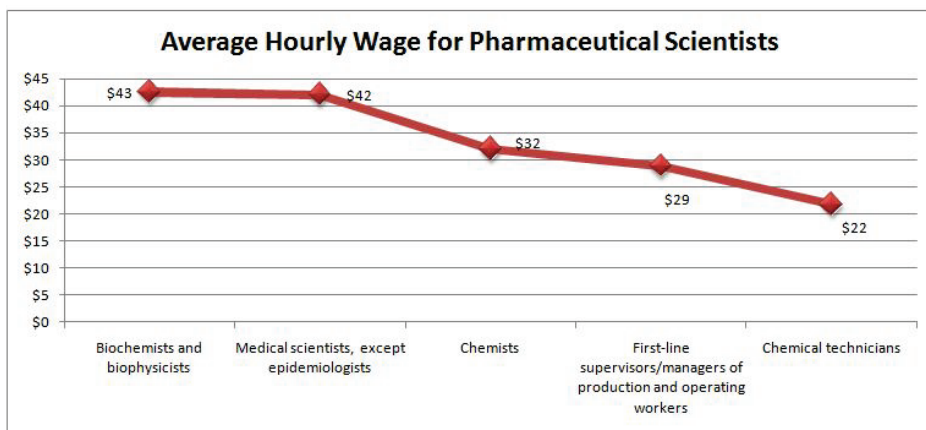
Who has the highest wage?

How much does a chemist earn for an 8-hour workday?

Who earns almost 50% more than chemical technicians?

Why do in your opinion biochemists earn more than medical scientists?

Which of the professions listed appeals to you most?



At the end of the English course students of different health care subjects traditionally prepare an oral presentation on PowerPoint which they deliver before their peers. This gives them yet one more chance to use the grammar in context, display and compare their more creative products, e.g. pictures, posters, collages, folders with portfolio topics, etc.

Conclusion

The specific context provided for natural grammar-focused work in English depends on the medical subject taught. Typically the exploited texts supply natural environment and allow students to experience the language in a highly contextualized manner. Sometimes tips are used from existing books on general English and tasks are

transferred to a text for medical purposes, and they are adapted to match the context and culture of teaching.

As Michael Swan pointed out at a seminar in Sofia in April 2012, 'Grammar doesn't have to be grey!' On the whole, students at university level like doing grammar, they are used to such activities in high school and grammar-focused work is part of their expectations for enhancing their English skills and enriching their medical English vocabulary. In rare cases some students even prompt the lecturer to provide more activities for practicing contextualized grammar. On one occasion one of the excellent students observed, 'We don't have enough grammar' and continued, 'It was high time we did a grammar-focused activity to brush up our English ...'. Thus students give ideas and help in the process of further developing the English for medical purposes course books.

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Iva Sorta-Bilajac*, Jelena Sorta**

Primjena teorije komunikacije Paula Watzlawicka na praksu komuniciranja u medicini i zdravstvu

SAŽETAK

Komuniciranje je proces stvaranja značenja između dvije ili više osoba.

Ishodišna točka teorije komunikacije Paula Watzlawicka je odnos između pojedinaca i svojstva tog odnosa. Svatko od nas sebe ostvaruje/doživljava u odnosu s drugima, u svojem djelovanju na druge i u djelovanju drugih na sebe. Odnos s drugima je ono što nas određuje i karakterizira. Kvaliteta i narav tog odnosa kreira našu individualnost i razlikuje svakog od nas od svakog drugog.

Sustav medicine i zdravstva temelji se upravo na odnosu. Pri tome treba uzeti u obzir kako se do nedavno ekskluzivan odnos liječnik - pacijent, danas sagledava u širem, višedimenzionalnom odnosu: zdravstveni radnik – pacijent – okolina.

U tom kontekstu pokušati će se proanalizirati pet aksioma teorije komunikacije Paula Watzlawicka:

1. nije moguće ne komunicirati;
2. svaka komunikacija sastoji se iz sadržajnog i odnosnog aspekta;
3. narav odnosa uvjetovana je interpretacijom ponašanja komunikatora;
4. komunikacija može biti verbalna i neverbalna;
5. komunikacija može biti simetrična ili komplementarna.

"Nemoguće je ne komunicirati u situaciji kada se dvoje ljudi vide. Jer aktivnost ili neaktivnost, riječi ili šutnja, sve ima vrijednost poruke."

Paul Watzlawick

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Uvod

Komunikacija je "*sredstvo* s pomoću kojeg dvije ili više osoba razmjenjuju informacije i međusobno utječu na svoja mišljenja i ponašanje." (Šegota i sur., 2003: 6.).

"Komuniciranje i u širem i u užem smislu riječi označava razmjenu poruka." (Žitinski-Šoljić, 2001: 4.). To je "*proces* stvaranja značenja između dvije ili više osoba." (Bratanić, 1991: 76.), ili, nešto detaljnije, "dinamičan proces namjernog ili nenamjernog davanja, prenošenja i primanja poruka između dvije i više osoba na verbalan ili neverbalan način - uključujući i uporabu simbola." (Šegota i sur., 2003: 7.). To je proizvod najmanje dviju osoba koje na verbalan ili neverbalan način stupaju u međusoban interakcijski odnos, iskazujući pri tome svoje misli i osjećaje. Komunicira se ne samo s namjerom, nego i bez nje, jer se izbjegavanjem komuniciranja s nekim, šalju, također, određene poruke.

Kroz način na koji komuniciramo, smještamo se u određene društvene kontekste, kreiramo proces socijalizacije i bivamo socijalizirani. Jedino adekvatna komunikacija omogućuje zauzimanje adekvatnog mjesta i uloge u određenim društvenim strukturama. Sebe možemo definirati i realizirati jedino u *odnosu* s drugima, a taj odnos je nemoguće uspostaviti ukoliko se ne uđe u proces komuniciranja.

Kao ishodišnu točku svoje *teorije komunikacije* Paul Watzlawick ističe upravo *odnos* između pojedinaca i svojstva tog odnosa. Svatko od nas, naime, sebe doživljava tek u odnosu s drugima, u svojem djelovanju na druge i u djelovanju drugih na nas same. Odnos s drugima je ono što nas određuje i karakterizira, određuje našu individualnost i razlikuje pojedinca od svakog drugog (prema Bratanić, 1991.).

Paul Watzlawick je u svojoj teoriji postavio pet aksioma (pravila) komunikacije:

1. nije moguće ne komunicirati;
2. svaka komunikacija sastoji se iz sadržajnog i odnosnog aspekta;
3. narav odnosa uvjetovana je interpretacijom ponašanja komunikatora;
4. komunikacija može biti verbalna i neverbalna;
5. komunikacija može biti simetrična ili komplementarna (prema Bašić, Hudina, Koller-Trbović, Žižak, 1994., Bratanić, 1991., Watzlawick, Beavin-Bavelas, Jackson, 1967.).

Nije moguće ne komunicirati

Nije moguće *ne komunicirati*, jer svako ponašanje u interpersonalnoj situaciji ima karakter poruke. Odbijanje komunikacije također je komunikacija. Čak i šutnja odašilje poruku (prema Bašić, Hudina, Koller-Trbović, Žizak, 1994., Bratanić, 1991., Watzlawick, Beavin-Bavelas, Jackson, 1967.).

Svaka komunikacija sastoji se iz sadržajnog i odnosnog aspekta

Uspješno komunicirati sa *sadržajnog* aspekta znači znakovima i/ili simbolima kojima se komunicira pridavati isto značenje. Sadržajni aspekt govori o značajkama objekta informacije. Sa *odnosnog* aspekta, uspješna komunikacija ostvaruje se ako je među komunikatorima uspostavljena klima međusobnog povjerenja i suradnje (prema Bratanić, 1991.).

Odnosni aspekt govori o stavu prema informaciji, komunikatorima, dakle, vezan je uz odnose između osoba koje komuniciraju i utječe na sadržajni aspekt. Naime, aspekt sadržaja i aspekt odnosa u komunikacijskom procesu u stalnoj su uzajamnoj vezi, jedan na drugoga djeluju, jedan drugoga učvršćuju ili oslabljuju. Ne može ih se odvajati niti negirati njihovu izmjeničnu i obostranu prisutnost u svakoj komunikaciji (prema Bašić, Hudina, Koller-Trbović, Žizak, 1994., Bratanić, 1991., Watzlawick, Beavin-Bavelas, Jackson, 1967.).

U svojoj teoriji Watzlawick je postavio šest temeljnih karakteristika komunikacije kao *odnosa*:

1. pojedinca promatrati u odnosu s drugima;
2. međuljudski odnos proučavati kroz komunikacijski proces, jer komunikacijom djelujemo jedni na druge, određujemo jedni druge, doživljavamo sebe u odnosu
3. prema drugima i prema samome sebi;
4. povratna informacija (*feedback*) bitna je za ponašanje i uvjetuje ga, naime, ponašanje svakog pojedinca uvjetuje ponašanje drugog i njegovo je ponašanje uvjetovano ponašanjem svih drugih;
5. međusobni utjecaj osoba koje su u nekom odnosu uvjetovan je situacijom i na
6. nju djeluje, dakle, kontekst situacije utječe na odnos, koji opet utječe na kontekst;
7. postoje različiti stupnjevi svjesnosti o pravilima koja vladaju našim ponašanjem, što je neobično važno za pravilan i objektivan pristup ljudskom ponašanju;
8. komunikacija je čitavo ponašanje i utječe na ponašanje (prema Bratanić, 1991., Watzlawick, Beavin-Bavelas, Jackson, 1967.).

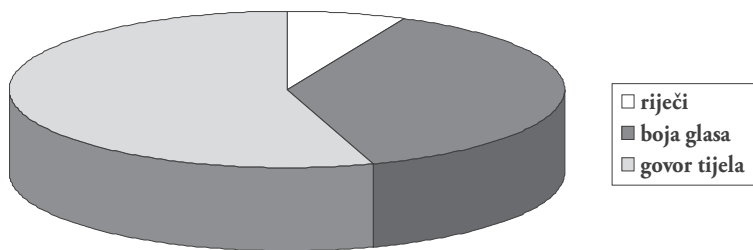
Narav odnosa uvjetovana je interpretacijom ponašanja komunikatora

Često od drugih očekujemo određeno ponašanje, ponašamo se u skladu s našim ili tuđim očekivanjima, te svojim ponašanjem uvjetujemo očekivano ponašanje drugih.

Svaki komunikator za početak određenog komunikacijskog tijeka identificira svoju polazišnu točku prema kojoj svojoj verziji pripisuje ključnu ulogu za razumijevanje uzroka i posljedice. Različita *interpretacija* određenog interpersonalnog zbivanja pojedinog komunikatora može biti razlog interpersonalnog konflikta (prema Bašić, Hudina, Koller-Trbović, Žižak, 1994., Bratanić, 1991., Watzlawick, Beavin-Bavelas, Jackson, 1967.).

Komunikacija može biti verbalna i neverbalna

Interpersonalna komunikacija "stalno teče na dvije razine. Jedna je verbalna, a druga neverbalna. Ta dva dijela komunikacijskog procesa, kako ističe Watzlawick, nemoguće je dijeliti i odvajati, jer uz verbalnu paralelno teče i neverbalna komunikacija." (Bratanić, 1991: 90.), samo što je ova potonja manje osviještena, tj. nije uvijek pod svjesnom kontrolom.



Slika 4. Sustavi komuniciranja prema Albertu Mehrabianu.

Izvor: Sorta, 2009: 17.

Verbalna komunikacija koristi se za razmjenu informacija znakovima/simbolima koje svatko može razumjeti na jednak način. Tako se razmjenjuje sadržajni aspekt poruke. *Neverbalna* komunikacija se služi znakovima/simbolima koji omogućuju približnu predodžbu i njome se prenose poruke o odnosu (prema Bašić, Hudina, Koller-Trbović, Žižak, 1994., Bratanić, 1991., Watzlawick, Beavin-Bavelas, Jackson, 1967.).

Jedna od šire prihvaćenih definicija opisuje *neverbalnu komunikaciju* kao "proces signaliziranja značenja u interpersonalnoj komunikaciji, koji ne uključuje izgovorene

riječi." (Goss, O'Hair, 1988: 74.). Obično se pri komunikaciji usredotočujemo na ono što se govori riječima. Međutim, neverbalna komunikacija otkriva i ono što se ne želi reći. Radi se o tzv. "govoru tijela" (Slika 1). Takve poruke tijekom komuniciranja obično nisu svjesne, ali drugi komunikatori mogu ih "čitati" kao da su izgovorene (prema Šegota i sur., 2003.).

Komunikacija može biti simetrična ili komplementarna

U *simetričnim* odnosima teži se za sličnošću, razvija se odnos ravnopravnosti i jednakosti, a izbjegava se različitost. *Komplementarni* odnos podrazumijeva različito, ali nadopunjavajuće ponašanje.

Simetričnost i komplementarnost međuljudskih odnosa u okviru naše komunikacije s drugima predstavljaju stvarnost i nužnost. U interpersonalnom odnosu to moraju biti fleksibilne kategorije, te moraju odgovarati određenim sposobnostima i karakteristikama pojedinca u određenoj situaciji. Izmjena ova dva načina znak je zrele komunikacije (prema Bašić, Hudina, Koller-Trbović, Žizak, 1994., Bratanić, 1991., Watzlawick, Beavin-Bavelas, Jackson, 1967.).

Komuniciranje u medicini i zdravstvu

Jedan od ključnih momenata u medicini i zdravstvu je komunikacija koju zdravstveni djelatnik uspostavlja s pacijentom. Stoga je neophodno da se prilikom osposobljavanja zdravstvenih radnika za uspješnu aktivnost liječenja, odnosno njege, pažnja posveti i razvijanju komunikacijskih sposobnosti, s posebnim naglaskom na empatijsko komuniciranje i razvijanje dijaloga.

Smatra se da se tek na razini empatijskog komuniciranja ostvaruje odnosno djelovanje. "Kada osobe koje su u odnosu empatijski međusobno komuniciraju, tada se može ostvariti najviši stupanj interakcijske povezanosti u komunikaciji... Na tom stupnju komuniciranja ostvaruje se zapravo ideal ljudske komunikacije, a to je dijalog." (Bratanić, 1991: 98.). Stupnjevi (razine) interakcijske povezanosti u komunikaciji prikazani su u Tablici 1.

"Za uspješnost komuniciranja potrebno je ostvariti uvjete ne samo što se tiče sadržaja, nego i što se tiče odnosa među onima koji uzajamno komuniciraju." (Bratanić, 1991: 99.). Stoga možemo reći kako uspješnost interpersonalnog komuniciranja u medicini i zdravstvu ovisi od stupnja interakcije među komunikatorima i pravilnog "čitanja" sadržajnog i odnosnog aspekta poruke.

Tablica 1. Stupnjevi interakcijske povezanosti u komunikaciji.

Stupnjevi interakcijske povezanosti	Komunikacijska aktivnost
fizička prisutnost	<ul style="list-style-type: none"> • neverbalna komunikacija • različiti stupnjevi unutarnje povezanosti
akcijsko-reakcijsko komuniciranje	<ul style="list-style-type: none"> • pitanje-odgovor • bez unutarnje povezanosti • proces informiranja – bez utjecaja
empatijsko komuniciranje	<ul style="list-style-type: none"> • uživljavanje u drugoga • prilagođavanje komunikacije onima s kojima komuniciramo • informiranje i utjecanje
dijalog	<ul style="list-style-type: none"> • obostrano empatijsko komuniciranje • međusobno utjecanje – ideal ljudske komunikacije

Izvor: Bratanić, 1991: 98.

Velika važnost interakcije i komunikacije u sustavu medicine i zdravstva očituje se upravo u činjenici da se komunikatori (primaoci i davaoci poruka) nalaze u specifičnom međuodnosu. U tom odnosu pacijent mijenja ulogu iz davaoca u primaoca poruka, bivajući čas jedno, čas drugo, često istodobno, međutim, uvijek ostaje u zavisnom i, može se reći, komunikacijski inferiornom položaju u odnosu na zdravstvenog radnika. Stoga je, primjerice, u procesu sestrinske njege, u komunikaciji sestra-pacijent, važno "poznavati ne samo načine na koje se kodiraju, emitiraju i dekodiraju ljudske poruke, već i mehanizme koji na to utječu, jer postoje individualne i socijalno-kulturne determinante komuniciranja." (Šegota i sur., 2003: 19.).

Postoje četiri komunikacijske "pozicije" kao opći okviri unutar kojih se odvija i sestrinsko komuniciranje u medicini i zdravstvu:

1. kooperativno komuniciranje (*ja sam OK; ti si OK*) – sestra se prema pacijentu odnosi s uvažavanjem, razumijevanjem, strpljivošću, te nastoji suradnjom i suglašavanjem rješavati nastale probleme;
2. inferiorno komuniciranje (*ja nisam OK; ti jesi OK*) – sestra se prema pacijentu ponaša nesigurno, s nevjericom u sebe i svoje sposobnosti;
3. superiorno (*ja sam OK; ti nisi OK*) – sestra se prema pacijentu ponaša "s visine", omalovažava, podcjenjuje; u radnom kolektivu takva osoba sklona je nametanju autokratizma i strahopoštovanja;

4. osporavajuće (*ja nisam OK; ti nisi OK*) – u sestrinskom pozivu je sasvim disfunkcionalno; to je tzv. negatorsko, nihilističko komuniciranje, koje spada u najnepoželjnije "pozicije" komuniciranja (prema Šegota i sur. 2003.).

U kontekstu ranije objašnjene važnosti interakcije i interakcijske povezanosti u kvalitetnoj zdravstvenoj komunikaciji, kooperativno komuniciranje predstavlja najpoželjniji način komuniciranja s pacijentom.

Za kvalitetno komuniciranje s pacijentom jednako je važan proces davanja, kao i proces primanja poruka, odnosno sposobnost slušanja. To podrazumijeva "slušati drugoga, razumjeti o čemu nam govori, suosjećati s njim (ne sažalijevati) i pokušati mu pomoći riješiti problem." (Dulčić, Kondić, 2002: 95.). Pri tome je od velike važnosti što manje "nečiste komunikacije", tj. dvostrukih poruka, odnosno da se riječima kaže jedno, a neverbalno (pogledom, mimikom i sl.) drugo; što manje "ti" poruka (zapovijed, prijetnja, kritiziranje, izrugivanje) jer su one jezik neprihvatanja osobe s kojom se na taj način komunicira; dok su najpoželjnije "ja" poruke - jezik prihvatanja (saslušavanja, savjetovanja, tješnja), tj. "čista komunikacija" u kojoj se zajedno s pacijentom problem definira i rješava upravo komunicirajući (prema Gordon, 1983.).

Da bi se takva komunikacija ostvarila potrebno je uspostaviti temelj postojanih, pozitivnih i brižnih odnosa između zdravstvenog radnika i pacijenta, odnosno posjedovati osjećaj za prepoznavanje i ostvarivanje pacijentovih potreba. Stoga je od neizmjerne važnosti da zdravstveni radnici ovladaju vještinom prepoznavanja i korištenja adekvatnih komunikacijskih "pozicija", te razvijaju vještinu "slušanja pacijenta", jer, kako prof. Maja Žitinski-Šoljić smatra: "Uspješno komuniciranje jest vještina. Svaku vještinu je moguće naučiti." (Žitinski-Šoljić, 2002: 124.).

Zaključak

Sposobnost komuniciranja kao procesa, te uspostavljanje adekvatne (zdrave, čiste) komunikacije kao sredstva, predstavlja temelj odnosa pacijent – zdravstveni radnik. U svojoj *teoriji komunikacije* Watzlawick definira upravo *odnos* među pojedincima i svojstva tog odnosa kao temeljnu odrednicu svakog pojedinca. Stoga možemo zaključiti kako se, ono što nas određuje i karakterizira kao individualne i jedinstvene, posebice kao aktivne subjekte u sustavu medicine i zdravstva, može ostvariti tek u međudjelovanju, u odnosu prema i sa drugima. Sam odnos može se ostvariti jedino komuniciranjem. Zaključno, način komuniciranja određuje naše međuljudske odnose, a od uspostavljenih odnosa zavisi uspješnost međusobnog komuniciranja.

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Applying Paul Watzlawick's communication theory to medicine and healthcare communication practice

ABSTRACT:

Communication is the process of creating meaning between two or more persons. The starting point of the Paul Watzlawick's communication theory is the relationship between individuals and properties of this relationship. Each individual is realized/experienced through dealing with others, acting towards others, and through activity of others towards her/him. The relationship with others defines and characterizes the individual. The quality and nature of this relationship determines one's individuality and differs individuals from each other.

Medicine and health care are based precisely on the relationship. It should be taken into account how until recently exclusive physician - patient relationship, today is viewed in a broader, multidimensional relationship: health professional - patient - the environment.

In this context, the five axioms of Paula Watzlawick's communication theory will be analyzed:

1. it is impossible not to communicate;
2. any communication consists of the content and the relationship;
3. nature of the relationship depends on the interpretation of the behaviour of communicators;
4. communication can be verbal and nonverbal;
5. communication can be symmetrical or complementary.

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Developing specialized linguistic competence in foreign students studying medicine

ABSTRACT

The Medical University - Varna offers instruction for foreign students in Bulgarian and English. Basic task of the Bulgarian language course for medical purposes in both programs is to supply students with sufficient medical lexis, so they are able to pursue academic knowledge and to carry out successful professional communication in clinical settings. The effective development of communicative skills requires certain strategies and principles of teaching. Building specialized linguistic competence is a process that prepares students for the subsequent stages in education. It starts with introduction to general anatomical and physiological terminology and ends up with basic clinical terminology. Since Bulgarian courses in both programs have different linguistic focuses, teaching strategies differ in the mechanisms used to create speech production. The present paper aims to present and to analyze our experience and practice in language instruction for academic and professional communication.

Key words: medical terminology, teaching strategies, methods, communicative competence, clinical environment

Medical terminology lies at the heart of academic and clinical communication. For this reason, it is subject of specific teaching strategies in view of the successive stages in the overall instruction of Bulgarian language for medical purposes. The creation of specialized linguistic competence is a process of methodical and lexico-grammati-

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cal adaptation of foreign students to academic communication. To effectively implement this process, we apply a flexible communicative model focused on the three main objectives of teaching: effective theoretical communication in an academic environment; effective practical communication in a clinical environment; effective doctor-patient communication. The present report aims to summarize the instructional strategies we have used in the course of specialized Bulgarian as "a series of targeted and carefully planned teaching techniques for solving specific communication problems – providing knowledge about the different registers of speech and building communication skills through familiarizing the students with communication strategies in the foreign language". /Eftimova 2004 : 141/

1. Developing specialized linguistic competence in the Bulgarian program

All foreign students at the Medical University study general Bulgarian for one year / preparatory year/, before starting their medical classes. The establishment of a specialized language competence starts in the second semester of the preparatory year with the discipline "Specialized Bulgarian", known also as 'Medical Terminology'. The aim of the discipline is to provide students with: 1. initial knowledge of medical terms mainly in the field of human anatomy; 2. level of linguistic knowledge which allows them to communicate adequately in both academic and clinical environment, i.e. to make a conversation both with colleagues and patients.

However, before creating successful communicators, whose language skills are commensurate with the communicative task, we must clarify the meaning of medical terms and accumulate this specialized vocabulary in the conceptual apparatus of students through a variety of pre-communicative exercises. These exercises aim to help students to learn how to form nouns, adjectives, compound words and phrases. In the pre-communicative stage it is required that lexemes are placed in a minimal context. The most productive types of exercises for building specialized vocabulary are listed below:

1. Exercises to form verbal nouns;
2. Exercises to form nouns from adjectives;
3. Exercises to form diminutives;
4. Exercises to form adjectives;
5. Exercises to form compound words.

Linguistic competence requires from communicators to comply with the rules of the language in order to produce grammatically correct statements. Canale defines lin-

guistic competence as the knowledge of linguistic units at different levels, the rules for their combination and their use in speech acts (Canale 1983:17). Also according to B. Switalla, linguistic competence is "an initial set of rules which helps a speaker to form various new sentences and understands them." (Switalla 1999: 204-205).

In view of the above, we give students a range of tasks requiring the usage of correct verb forms, formation of plural forms, coordination of noun and adjectives, etc. Strategic ability to absorb the linguistic norm applied to specialized medical terminology is achieved through exercises that require from students to make choices and set lexical units in the context appropriate to their semantic and grammatical features. Learning the grammatically and semantically correct form of words in this initial stage of introduction to the medical terminology will ensure correct discourse production in the next stages of medical education.

Another type of tasks designed to enrich students' vocabulary in relation to language precision are those for synonyms and antonyms. In medical terminology there is a high and low register of speech – the first relates to the academic and professional communication and the second relates to communication with patients. In order to communicate successfully in different social environments students should be acquainted with the semantic variations in language to be able to select the adequate to the situation lexem from the synonym row. At this stage of language education synonyms and antonyms are studied in relation to anatomical terms. If in the academic discussion the usage of terms such as erythrocytes, cranial nerve, sternum is appropriate, in non-specialized environment this high register can lead to misunderstandings.

While preparing students for their future work, our primary task is to teach them to ask well structured questions. It is known that there are two main types of questions: wh-questions and yes/no-questions. The main exercise for developing the skills of asking questions is based on specific anatomic texts from which students extract information by interrogation. A student who succeeds in asking questions about the text is obviously successful in perceiving information, defines the topic and the focus of the text, i.e. he/she has a good linguistic and discourse competence. Correctly posed questions indicate successful communication.

"The competence for reading comprehension represents the ability to construct linguistic meaning from a written text". /Kaneva 2008: 231/ Working with specialized adapted texts, students simultaneously apply the skills to extract meaning and to decode, i.e. to recognize and process written information. Understanding of language is based on already acquired linguistic knowledge associated with phonology, syntax and semantics, while decoding is accomplished by means of the lexical

knowledge of learners. To receive feedback whether a text was adequately taken, we apply the method of asking questions related to the content. Through such interaction we get confidence that the process of reading is carried on the cognitive level.

The instruction in Bulgarian for medical purposes in the first two years /4 semesters/ has as its primary goal the development of communicative competencies in foreign students, based on preclinical and clinical terminology. These communicative competences should lead to a successful realization of the medical students in the academic and hospital environment. From this perspective, the key is the choice of communicative strategies, as students in the first and second year are faced with the need to read and reproduce scientific texts with generally descriptive nature. The basis of the process is learning the skills of reading comprehension and speaking. In the classes, the students use the book "Bulgarian for medical purposes" by Assoc. prof. Dr. Violeta Tacheva. The thematic units are 33 and they are divided into 4 semesters as follows:

- first semester - topic 1 to 10;
- second semester - topic 11 to 19;
- third semester - topic 20 to 26;
- fourth semester - topic 27 to 33;

It is noteworthy that in the second year (third and fourth semester) the volume of data is smaller, but this is related to the lesser number of classes in Bulgarian language for medical purposes, which are defined in the curriculum - only 60 against 120 in the first year (first and second semester).

During the first semester the linguistic focus is placed on different morphological units and their frequency in the preclinical medical terminology and in the medical theory and practice. Each topic offers tasks for reading comprehension, as the ones for selective reading are preferred. The goal is that students master the skills to extract information from scientific text for the given task. Reading is an independent action, but the information obtained is necessary to form the basis for dialogue within the group of trained students, so that communication can occur on the reviewed scientific topic. This is a communicative strategy, which requires careful selection of the texts, as their main feature has to be the productivity of the provided information, i.e. they should provoke the critical thinking of students. On the other hand, the textbook texts of anatomy develop the skill of retrieving information. It should build a model of speaking on an anatomical theme. Most often this is a description of an object. The model that students follow is: 1. term for the object 2. location of the object and environment 3. shape of the object 4. size/dimensions of the object 4. colour of the object. Physiology texts, on the other hand, feature de-

scription of a process, so for them a different pattern of speech is set: 1. term for the process, 2. objects/organs involved in the process 3. direction of the process 4. actions of objects/organs involved in the process 5. duration of the process 6. outcome(s) of the process. The correct and precise questioning of both the descriptive and discussion texts is critical for achieving the learning objectives, while questions that involve answers with only "yes" or "no" are completely excluded. Students need skills to produce their own oral (and at a later stage, written) texts on scientific medical topic, so a productive question is one that allows for the construction of the text for the answer. From a strategic perspective, the most successful approach to these objectives is the journalistic paradigm: 1. Who? 2. What? 3. How? 4. Where? 5. When? 6. Why? Applying this model during the development of their speech patterns, students not only learn the necessary communication skills in reading and speaking, but also adapt to the academic language environment.

Another important objective of the training of foreigners in Bulgarian language for medical purposes is the mastering of synonymous syntactic structures, traditionally characteristic of the scientific style and in particular of the style of medical scientific texts. This is the linguistic focus of teaching Bulgarian as a foreign language during the second semester. Based on the knowledge of the foreign students of general Bulgarian language, the teacher focuses on the opportunities which the medical academic text offers in regard to developing their expression. During reading, students learn not only the main functions of the parts of the sentence, but also the types of sentences by composition and purpose of statement. At this stage of learning, the basic strategy is again the dialogue that students are more likely to lead when their task is to create oral texts on the same topic but with different syntactic structures, depending on what is the intention of their speech. As a strategy, here we should also point the induction of controversy and even opposition between the participants in the dialogue, which in turn allows for the inclusion in the speech of lexical and syntactic units that are not restricted to scientific style.

The expected results after the training during the first year are:

1. Students master skills in reading comprehension at a level enabling them to segment text, to extract to the utmost degree the useful information from it and to reproduce it orally, using a variety of language tools;
2. Students are able to create a comprehensive, complete, grammatically correct and logical oral argument on a given topic from the preclinical field;
3. Students are able to distinguish linguistic registers in a speech on scientific problem.

In the second year (third and fourth semester) the choice of reading texts is determined by the need for foreign students to be actively involved in the academic scientific life and not only to reproduce possible theses, but to construct such themselves, complying with the rules of the academic discourse. For this reason, a significant place in the thematic plan for Bulgarian language for medical purposes in the second year is devoted to modes of discourse in medical theory and practice - description, narration, reasoning. It is also important to note that in reading assignments students are required to detect synonyms, antonyms and paronyms in the academic texts. Only after that they proceed to the analysis of the structure of the text in various medical fields - preclinical, propaedeutics and clinical. A key communication strategy at this stage is the preparation of a project on a medical research topic. Students are divided into groups that choose the topic of the project, gather materials, process them, comment on the possible viewpoints, form theses and arrange their arguments. The project is presented orally, as participants can also use nonverbal means of communication such as pictures, graphs, tables, etc. A multimedia projector is also available for the students. The teacher pre-sets evaluation criteria, and we often find it appropriate to allow participants to assess each other, as they take the role of specialists in the given problem. The teacher assesses only the language part of the project.

During the fourth semester the skills for appropriate speech performance are deepened in regard to the communicative environment and from this point of view, a special emphasis is placed on the high and low medical register. In order to enable students to become independent speakers on medical themes, to participate in discussions and to assess the performance of their colleagues, they must have appropriate knowledge of the registers of medical language. In mastering the necessary communicative competences, it is strategically important to use the so-called role-playing games in which students play the role of a doctor or a patient. The focus of the role-playing game "Medical examination" is by asking the right questions the "doctor" to be able to acquire the case history of the "patient" using language means from the high and low medical register, so that he can reach the "patient", earning his trust and being useful to him.

The expected results at the end of the fourth semester are:

1. Foreign students master reading comprehension skills and speaking at level B2-C1 according to the Common European Framework;
2. Students are able to plan and present a speech on their own on a medical problem;
3. Students develop a sense for the use of the high (academic) and low (hospital) medical language register.

Finally, we should mention that the report is based on experience gained from working with foreign medical students in first and second year - Bulgarian program - in the Medical University in Varna, Bulgaria. Bulgarian language groups in different years numbering between 10 and 12 people each and participants from Turkey, Greece, Macedonia, Russia, Germany, Nigeria, Ukraine and Moldova.

2. Developing specialized linguistic competence in the English program

In the difference with the Bulgarian program, in the English program students need specialized Bulgarian only for interacting with patients during their practicals in the hospital. For this reason, the instruction in specialized Bulgarian language for them is focused only on basic clinical terminology (in the first and second academic year students study general Bulgarian and the third year is devoted to medical terminology). The pragmatic needs that the Bulgarian language course has to meet require special attention on developing listening and speaking as communicative skills. Reading and writing are narrowed down mainly to reception of authentic medical documents – medical histories and test results. That is why we put in the center of our teaching strategy the *doctor-patient dialogue* as a context and basic instrument for building specialized linguistic competence. In order to offer adequate terminological preparation, the linguistic material is organized in topics from different clinical disciplines and is presented in the form of simulated situations from the doctor's practice such as medical interview, examinations, prescribing drugs, explaining laboratory results to patients, discussing diagnoses and treatment.

From the very first day of their education in the third academic year foreign students start to communicate with patients. Usually they have to take a history and find out details about patient's current condition, past problems and medication. In order to help students to be successful and effective in their present dealings with the patients, we start the Bulgarian course with:

1. introduction of new language related to the sections of a full case history and the data they have to collect. An emphasis is put on talking about present complaints and the symptoms that must be clarified by questions.
2. training simple history taking activating students' knowledge from the general Bulgarian course for making correctly ordered questions.

In that early stages of building their linguistic and communicative competence students practice mainly asking well-structured elementary questions in limited context. The grammar focus is on the appropriate use of verbal tenses, the correct choice

of adverbs and prepositions related to the different aspects of symptoms such as location, duration, frequency, intensity, quantity, etc.

The next step in the educational process is detailed work on functional language in the different specialties in medicine such as gastroenterology, cardiology, neurology, obstetrics. In each theme students are given the Bulgarian names of internal organs, basic symptoms and diagnoses related to the relevant anatomical system. Communication with patients having different level of education demands good command of terminology not only in the high register, but also its equivalents in the low register. Specialized terms may block the conversation with incompetent patients, so in many cases their common, even jargon equivalents are appropriate to negotiate meaning. That is why stylistic synonymy is an obligatory element in the description and presentation of the clinical sublanguage.

The new medical lexis is mostly incorporated in dialogues, which are simulated doctor-patient interviews, doctor-doctor and doctor-nurse conversations. By a range of exercises based on focused listening or watching recorded interviews students learn how terminology functions in real communicative situations – how patients refer to a given part of the body when they speak about their problem and how doctors relate to patients. This way they receive ready for use language constructions which to integrate in their own conversations with patients; train their receptive skills and ability to summarize the obtained information; adapt to different speed, accent and style of talking of native communicants.

Another important communicative technique for building specialized linguistic competence is role-playing. In the role play, students work in pairs to simulate taking patient histories. It is a means by which they can progress from reproduction of dialogues made by foreign speech model /imitation/ to generated by themselves dialogues applying the acquired language competences /Tacheva 2011:16/. The dialogue performance is a good rehearsal for the communicative challenges in real hospital environment giving students the best opportunity to activate and assess their linguistic and medical knowledge. The discussions among the group after the role-play activity stimulate students to identify and reflect on linguistic errors and make suggestions for correct grammatical or lexical alternatives. Thus students can learn from each other, extend vocabulary and train different ways to successfully communicate meaning.

Unfortunately, the short time students have for studying language for specific purposes /180 academic hours/ does not allow achieving perfect command of Bulgarian. That is why in the Bulgarian course a special attention and practice is given to techniques by which students can compensate for some verbal deficiencies by using

synonyms, international lexis, descriptive explanations, comparisons and paraphrasing, repetition, elliptical sentences as alternative ways for them to relate effectively with patients.

In conclusion, the design of effective specialized language course requires good knowledge of students' present and future linguistic needs, development of high motivation in students to study the foreign language and continuous supply with up-to-date and closer to the real situations language activities. Still blended-learning is not exploited enough in our practice but we make our first steps in that direction – integration of new technologies in the process of instruction. The blend of face to face, multimedia-rich and online materials will give us a new perspective to bring foreign students to the final aim of their education – academic knowledge and effective communication.

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Violeta Tacheva*

Communication – the master key to the patient's heart

ABSTRACT

The report analyses the impact of linguistic and extra linguistic aspects of medical workers' speaking style and behavior towards their patients.

Special attention is drawn to two basic directions of modern communication in medicine and healthcare:

1. Verbal communication:

- 1.1. The sociolinguistic factors of oral communication discourse between medical staff and patients.
- 1.2. Key concepts for effective communication in medicine and healthcare.
- 1.3. Effective communication strategies and skills in medicine and healthcare, professional speaking and listening in medicine – key principles, functions.
- 1.4. Verbal tools and techniques. Language registers and style. Positive and negative language. Professional medical terminology and slang.

2. Non-verbal communication:

2.1. Body language in medicine and healthcare: kinetic signs, posture, gesture, mimics. International standards.

2.2. Personality of modern medical professional. Appearance and behavior in medicine and public healthcare.

The study draws the conclusion that the positive and appropriate verbal and non-verbal communication can have a beneficial effect on sick people and can prove to be the best cure for the patient's heart.

Key words: communication in medicine and healthcare, strategies, verbal tools, language register, body language

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Communication in medicine, health care and public health has a significant impact on physical and mental health, prosperity and happiness of both individuals and society as a whole. Communication as every human activity depends on specific needs since the human existence depends on many factors. Yet the physical and intellectual abilities turn out to be of greatest importance. Health needs are the main reason for launching the specific type of communication that is characterized by several stages. A health problem of a different nature - physical pain, mental deviation, emotional discomfort or any other complaint which conventionally is defined as "pain" is the initial step in medical communication (Figure 1.). The next stage requires specification of the facts and details, because that is characterized primarily by asking the doctor some professional questions. The communicative act in health-care continues with providing information through the patient's responses. These two steps are interrelated and form a long chain of *question – answer*. This is the meaningful aspect of primary medical examination - *taking medical history*. Instructions and guidelines for laboratory tests, procedures and treatments have different lexical, semantic and terminological character, thus they form a separate stage in medical communication. The final stage presents the feedback from the patient. If the result is unsatisfactory or there is a need to adjust the treatment, the entire communication process is repeated in the same sequence.

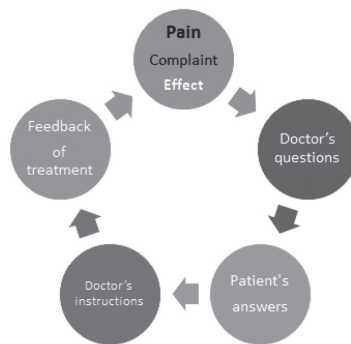


Figure 1. Stages of communication for medical purposes

Direct and indirect verbal communication are the main instruments for transmitting and receiving the necessary information, for carrying out the diagnostic and therapeutic process. Personal contact of medical staff and patients "face to face" is still the most popular way of doctor's examination and treatment → this demonstrates the fundamental importance of direct verbal communication in medicine.

The basic conditions, which define the oral communication discourse between medical staff and patient depend on different sociolinguistic factors. They influence both the volume and effect of communication for medical purposes.

1. Basic sociolinguistic factors of medical oral communication discourse → 7 Cs as follows: complexity, conciseness, concentration, compliance, clarity, courtesy, correctness.

The effective medical communication depends on answering the following questions regarding the complexity of medical communication: What? Why? Who? For what purpose? When? Where? How? The main question is *why* the communication takes place or what is the communicative aim – is it a regular, a preliminary, first, second or emergency examination. This leads to the next question which is very important for verbal communication: what the patient and medical staff are saying: is it an essential piece of information or additional but not important detail for the diagnosis, is it a complaint concrete for the case or a general one of some pain and past complaint which has crossed his/her mind; examination/ diagnostic instruction or advice about forthcoming treatment, calming and encouraging the patient. That is why the specifying question *what* becomes the main focus of any medical communicative process. Another important fact contributing to the communicative efficiency is *who* is speaking – is he or she an ordinary doctor on duty or a famous professor with a doubtless authority in medicine; the situation is almost the same when it comes to: *what kind of patient* takes part in the communicative process – is he or she an old anonymous patient or an influential VIP patient. Despite the claim of doctors that all patients are alike, this is not true - today the patient's personality is still very important – so the language register, vocabulary, emotional reactions vary depending on the social, political and financial status of the patient. There is a strong relation because of this among the factors: *why, how, who, what*.

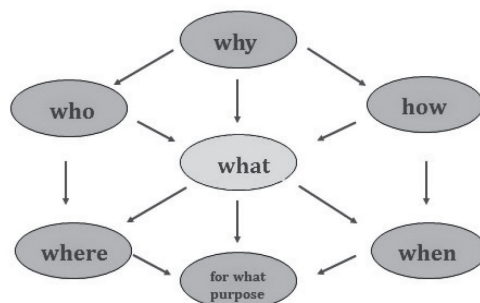


Figure 2. Components of complexity of medical oral communication discourse.

- Conciseness: precision and economy of expression without excessive detail
- Concentration: on events and facts, objectivity
- Compliance: with specific addressee; positive language, politeness
- Clarity: easy to understand, logical emphasis, short, familiar, conversational words are used to construct effective and understandable messages, arrangement of numbers and figures in a table
- Courtesy: tact and delicacy; appropriate vocabulary
- Correctness: appropriate style, spelling, ambiguous jargon is avoided, as are discriminatory or patronizing expressions, sexism and discrimination.

Compliance with the importance of sociolinguistic factors in the healing process leads to a more human aspect of medicine: In the 21st century, the patient is not treated as an object of therapy, but as a participant in it. All the above mentioned factors begin to play a role in medical communication with the concrete realities of language specific tools and techniques.

These basic sociolinguistic factors determine the main parameters of medical communication, but the physical, material and cognitive factors which are specific for communication in health care must be added to them.

1.1. Specific factors of oral communication discourse between medical staff and patients

The mental and physical status of the **patient and medical staff** play a most important role. Today in the 21st century people's lives are extremely complicated, full of stress and there is less time for normal communication. The sick person feels like a little child lost in a strange dark forest. In the mind, heart and soul of every sick person is unleashed a real storm of negative emotions: fear of pain and uncertainty, fear of suffering and death, worry and concern for children and parents in case of adverse developments of the disease. Thus, a poor physical condition and negative feelings become the dominant factor in the verbal behavior of a sick man. The health and mental condition of the medical staff are of great importance as well. In accordance with the principles of medical ethics, the medical personnel must show consideration, sympathy, empathy, concern, responsibility. But behind each medical specialist: a doctor, nurse or any person who takes care of a given patient, there is a human being with specific physical and personality traits, with their good and bad habits, with different moods and states of mind.

Nowadays the presence or absence of a medical insurance is especially important for the flow of the communication process. By law, emergency health care service

should be provided to each patient, but in reality only patients with health insurance can count on complete medical care: all types of laboratory tests, prolonged and expensive treatment, but mostly specialist treatment. Our personal observation and studies show that the presence or absence of health insurance significantly affects not only treatment but also the nature of communication. This fact will become increasingly important in view of the economic dependence of hospitals and even penalties for improper treatment of persons without health insurance. Fear of the patient that he or she might not be treated and concerns of the medical staff about fines and penalties vitiate normal behavior in this situation. It is therefore natural for communicators to change the chosen words, intonation and emotional nature of their speech. This in effect leads to crippled communication, in which the patient conceals part of the truth, and the doctors and nurses do not always stick to their good manners and appropriate language.

The background: general and special education, material status, personal intelligence occur in both the patient and the healthcare worker's idiolect. Many doctors and nurses quickly establish a reliable verbal contact with each patient because they themselves were brought up in a good family environment with love and attention to all family members. Values, attitudes toward education, art, sports, religion and so on plus traditions and family history of any communicators form the real nature of medical communication. Unfortunately this is not enough for good medical communication. Therefore, medical education in most European countries includes a set of different disciplines to develop the knowledge and skills for successful communication with the sick person. The communicative competence of the participants in each speech act happens to be especially important for an effective communication in health care. The verbal register, intonation, articulation, pronunciation, tone, rhythm, dialect define the character of the communicative impact as positive or negative depending on whether they facilitate or hinder the achievement of communicative purposes. All these paralinguistic devices depend on culture, background and level of education of medical professionals and patients. A highly educated, erudite, polite man will have a rich vocabulary and would carefully select words and expressions in a delicate conversation about health, whether he or she is a patient or a medical professional.

There exists yet another critical factor which is objective. It concerns the general view of a medical unit, appearance of medical staff, time available for history taking, clinical examination, treatment, testing, examination and of course - medical facilities, conditions, equipment, trained personnel.

Medical practice has been and always will be an area where extra-linguistic factors like materials, time, behavior, body language, gestures, facial expressions, exclamations play a huge role in communication. We will comment on them in Part II.

1.2. Key concepts for effective communication in medicine and healthcare

It is known that the achievement of the communicative aim determines the success of communication, but in medicine there is one more, dominant goal - a person's health. Since the time of Hippocrates the physician has treated not only by thought, hands and skills, but also with words. In medicine, there is a new phenomenon - *iatrogeny*, "Production or inducement of any harmful change in the somatic or psychic condition of a patient by means of the words or actions of a doctor"¹. That is why today hospital administrations are paying increasing attention to the words, expression, intonation, articulation and verbal behavior of the entire medical staff. These requirements are part of patients' rights in Europe².

Clinicians, nurses and other medical staff can positively and effectively impact patient health outcomes that include the following communication tasks:

- Giving information on appropriate and accessible language for a given patient's health, disease and corresponding complications, planned treatment and risks, diagnostic and therapeutic alternatives, participating experts, price.
- Calming the patient and adjusting his/her mood by:
 - overcoming fear and anxiety,
 - removal of pain and fear
- Instilling hope, confidence in success, a favorable outcome of treatment, reliable rehabilitation
- Deterring the patient's wrong idea, concepts of disease, dominant in his/her mind because of "*Think sick, get sick*"
- Formation of a picture of the disease in the patient
- Avoiding ambiguity, incompleteness and equivocation in his/her speech
- Obtaining informed consent about:
 - tests (handling procedures);
 - conservative and surgical treatment;
 - explaining risks and side effects;
 - consequences of refusal or untimely performance of necessary testing, treatment, surgery;

¹ <http://www.encyclo.co.uk/define/iatrogeny> (24 April, 2012)

² <http://www.who.int/genomics/public/patientrights/en/> (February, 2012)

- Persuasion of the patient in need of treatment and compliance with prescribed procedure;
- Sharing (concealed from the patient) the truth about his/her illness, depending on the situation in terminal conditions (imminent death)
- Showing interest in the patient as a person.
- The implementation of these communication tasks is the most important prerequisite for successful treatment – a strong link between patient and doctor. This relationship becomes a key to the patient's heart and establishes a long-term partnership.
- It is a real challenge to the health care provider to communicate successfully using all the above mentioned principles but communication failure in modern medical practice seems to occur more often. Barriers to successful communication are difficult to list but the most common include:
 - Professional incompetence and lack of medical experience;
 - Poorly structured medical examination;
 - Distractions and interruptions of examination by adverse events;
 - Interruption of the patient's story;
 - Inadequate language - complicated or ambiguous, using medical jargon;
 - Manner of speaking: too fast, unclear articulation;
 - Tone and content;
 - Not questioning the patient at all;
 - Not listening carefully to the patient;
 - Strong negative emotions;
 - Inappropriate behavior (preoccupation with other things, talking on the phone, work on the computer);
 - Uncontrolled body language;
 - Wrong interpretation of patient's body language;
 - Lack of time, time pressures and workload;
 - Selective perception;
 - Gender, social and cultural differences;
 - Misunderstanding;
 - Peculiar health and physical status of the patient;
 - Environmental barriers e.g. *heat, noise*;

- Human factors: personal preferences and attitudes, failures, stress and fatigue of the staff.

Whatever the reason is, it leads to healthcare failure because ineffective communication is reported as a significant contributing factor in medical errors and inadvertent patient harm³. In addition to causing physical and emotional harm to patients and their families, adverse events are also financially costly. Today, healthcare is ever more complex and diverse, and improving communication among healthcare professionals is likely to support the safe delivery of patient care⁴.

To sum up, we can draw conclusions about appropriate communicative strategies in healthcare.

1.3. Effective communication strategies and skills in medicine and healthcare

Generally all barriers to successful communication should be eliminated and they should be transformed into principles, rules, terms, skills, techniques and tools for successful medical communication. If we have to determine one strategy as a motto of the most appropriate approach to medical communication, it would be:

Positive vs. Negative Feedback. The positive feedback is more readily and accurately perceived than the negative one. Positive feedback fits what most patients wish to hear and already believe about themselves. The healthcare provider must never forget that the positive attitude of the human being is associated traditionally with the subconscious but nowadays with the conscious as well and is a dominating trend of positive thinking and behavior in social and personal expression of civilized relations. It is a proven medical fact that the experience of positive emotions (love, joy, happiness, satisfaction, etc.) releases in the brain endorphins - hormones of happiness that tone the entire body, stimulate all functions and extend life. Of course, we are not talking about lies and misconceptions about health, but about carefully selecting the appropriate strategy for each case. The history of human civilization, the development of modern linguistics and communication studies allow for a large selection. We will comment on various appropriate verbal techniques and verbal tools in the next section. Now let us focus on specific medical communication strategies.

Patient-centered speech (PCS). This strategy is part of person-centered medical care which has become the foundation for practice in many areas of healthcare provision. Many researches suggest that providing PCS may improve therapy outcomes,

³ http://download.audit.vic.gov.au/files/Patient_Safety_Public_Hospitals.pdf (2 May, 2012)

⁴ http://www.health.vic.gov.au/qualitycouncil/downloads/communication_paper_120710.pdf (2 May, 2012)

client satisfaction, and perceived quality of care, as well as address aspects of evidence-based practice⁵. If the doctor, nurse, technician treat a patient not only as a therapeutic and diagnostic object, but as a person with certain personality characteristics then the Hippocratic principle "Treat the patient, not the disease" shall be applied in practice⁶! The individual verbal approach expressed in the selection of specific vocabulary and terminology, warm tone and controlled intonation, clear articulation can treat as well.

Getting/giving necessary information. Receiving information from the sick man has always been an integral part of the history taking and diagnostic process. Giving information, however, from the physician to the patient still contains some hardcore restrictions. Our researches and observations show that it is completely different for each medical practitioner and it depends a lot on the personality of the patient. Doctors tend to underestimate patients' desire for information and to misperceive the process of information giving. The transmission of information is related to characteristics of patients (sex, education, social class, and prognosis), doctors (social-class background, income, and perception of patients' desire for information), and the clinical situation (number of patients examined). Nowadays people are more educated and competent and therefore more concerned about their health. Today people not only eat, do sport and live healthily, but they care a lot more about prevention and treatment in case of illness. All patients are curious about everything and they have the same questions, whether or not they ask them, like: *What's this? What (why) has (sth) happened to me? Is this dangerous? Is it curable? Will I die? What will be done to me? When (how, why) will it be done? Will it hurt? How much money will the test (drug, therapy, surgery cost)? Will I be able to recover? What should I do next? How can I prevent complications? How will this affect my family?* These examples of the most common questions can be extended depending on the specific disease and the patient. But it is important to know that the doctor/nurse/ medical worker has to give precise and clear answers to these questions. Thus the medical practitioner not only communicates, but he/she specifically educates the patient. Successful education of each patient brings great rewards. Thanks to raising the patient's awareness of the disease and its treatment, the relationship between the patient and the clinician is enhanced and the patient becomes part of the diagnostic and treatment process. The patient understands what is happening, what to expect, and therefore he/she becomes less anxious. In such a situation every patient feels respected and valued as a person. He opens his heart to the healer, he trusts him/her and carefully follows all instructions. In addition, according to Kathleen Daily

⁵ <http://www.ncbi.nlm.nih.gov/pubmed/20526986> (February, 2012)

⁶ <http://www.broowaha.com/articles/7272/hippocrates-simple-principles-for-a-solid-health>

Mock "*The doctor will not bear total and sole responsibility for the implementation of the proposed regimen, and both of them will be partners in a successful treatment plan, creating a high level of mutual satisfaction*"⁷.

Ensure understanding. Doctors are trained to use a lexicon of med speak that baffles and confuses the patients. General medical terms are used by all doctors of many specialties. Other words and concepts are specific to body systems, conditions, diseases or treatments. Experienced physicians search and find familiar and common words - synonyms of medical terms to be understood by the patient. Some doctors, however, deliberately and arrogantly use highly specialized terms and expressions to demonstrate the "high intelligence" and "much knowledge." A doctor or practitioner who is a good communicator has the ability to share information in terms his/her patients can understand. It is OK to use med speak and complicated terms, but they should be accompanied by an explanation at the same time. In any case, the patient will walk away much more satisfied with his/her visit, having learned what he/she needs to know, if he/she stops his/her doctor and asks for a definition or description when he/she uses a concept or term the patient doesn't understand. If the doctor finds out *what* and *how* the patient understands, not just whether the patient understands, then successful communication is guaranteed. Patient's understanding and awareness contribute to a higher form of treatment - not the unidirectional one but bidirectional cooperation between the treating and treated person. By understanding the patient, whoever they might be, and the expectations that they have of the doctor, the doctor can formulate the appropriate medical judgments for that particular patient, as well as derive satisfaction from this healthy patient-doctor relationship.

Establishing and keeping personal contact. The good medical communicator respects his/her patient in many ways. Good doctors understand that a sick or injured patient is highly vulnerable. Being respectful goes a long way toward helping that patient explain symptoms, take responsibility for decision-making, and comply with instructions. The patient, in the first few moments, will decide if he/she will feel comfortable with the doctor and most of this first impression is made not on *what* the doctor says, but *how* he/she says it and how he/she interacts with the patient. Lyson Haftel provides valuable recommendations to establish verbal contact with the patient, such as: "Make eye contact with the patient, shake hands, and introduce yourself. Don't fumble for a name after you are in the room. Never call a

⁷ <http://www.physiciansnews.com/law/201.html>

patient over the pediatric age group by their first name without permission, it is disrespectful. Learn about the patient and his/her family"⁸.

In many European languages the use of the plural as a polite form of address is absolutely necessary in personal contacts even of professional nature.

Improving communication skills. Improvement of language and the development of communication skills of medical staff require daily effort and perseverance. Some of the principles of good communication skills are handled even during medical training such as: asking one question at a time because posing more than one question is confusing or avoiding leading questions since they may suggest to the patient the desired answer.

Other communicative principles are more difficult to be fulfilled for a variety of reasons - for example, limitation of the use of medical jargon or abbreviations although medical staff members are aware of the fact that unexplained medical jargon can have a negative effect on the dialogue. In fact, doctors have become used to communicate promptly with colleagues in a professional environment and do not have time or do not want to struggle in search of meaningful synonyms of colloquial language⁹.

It is a matter of personal culture and education, however, the individual style and vocabulary of anyone working in the medical field. Many patients choose a general practitioner or like a certain nurse for only this reason - just because he/she is able to find the right language for them. What does the right language in medicine mean? Above all, it is a premise of verbal contact - analysis of the individual patient and selecting the appropriate language register with its relevant characteristics. Firstly, this includes a special selection of vocabulary in conversation with severe, terminally ill or very old patients, use of diminutives in conversation with children, avoiding unacceptable words associated with parts of the human body, abortion, fertilization, pregnancy and birth by a particular ethnicity religion as Muslims, Hindus and others. Secondly, right and appropriate language includes other communication techniques as well such as avoiding judgmental and negative language, answering the patient's questions, assessing the patient's understanding, summarizing the encounter, asking for agreement to fill in the patient summary form, encouragement of patients to share their thoughts, feelings, emotions, worries.

Demonstrating medical achievements, modern methods of examination, diagnosis and treatment procedures, medical equipment, effect of treatment, trained

⁸ http://www.med.umich.edu/medstudents/curRes/cca/m4/docs/2009/Patient_Doctor_Comm.pdf

⁹ Виолета Тачева, *Бизнес комуникация в здравеопазването*, Из-во "Стено", Варна, 2004, p.190

personnel is rather a psychological and PR trick than verbal strategy, but facilitates and contributes greatly to successful medical communications.

Modern medical devices act as a magic wand on patients. They willingly accept diagnostic and treatment procedures in hope of a speedy recovery. New treatment methods and tools impose a different form of communication - with new concepts and terms. It impresses patients and makes them feel special, which in turn affects positively the effect of the healing process.

1.4. Verbal tools and techniques in medical and healthcare communication

The language register in medicine is consultative, which means:

- standard form of communication;
- formal, professional discourse;
- communication between a superior and a subordinate → doctor & patient, engage in a mutually accepted structure of communication

These characteristics determine the use of the following specific linguistic techniques and tools:

1.4.1. Deliberate, targeted selection of positive vocabulary. It has been shown that positive words with semantic feature set actively stimulate the competitive spirit of the addressee or diplomatically prevent unwanted negative reaction. It is very important for medical communications whose primary purpose is to promote patient's good health and self-esteem. Everyone in critical health condition would rather hear words like: *heal, recover, get better, improve, relieve, alleviate, help, success, good results, positive, beneficial, a significant improvement, recuperate, stabilize...* instead of their antonyms with negative charge. Many studies and polls show the benefits of using exactly those words because they are associated with the positive aspect of life. Conscious selection and frequent use of words with positive charge transform the ordinary language into language of hope with therapeutic effect.

1.4.2. Deliberate avoidance of morphological and lexical units, explicit or hidden negative character and negative semantics: *no, never, nowhere, nothing, impossible, pain, hopeless, unfortunately, a problem, bad, negative, anxiety, danger, worsen, deteriorate, aggravate, exacerbate*, or terminology prefixes such as: *anti-, un-, de-, dis-, a-*

Psychological studies show that every patient feels an additional burden and stress even when only a negative form is used, despite the positive meaning such as "*No problem*", "*No metastases in other organs.*" This can be explained with the fact that in critical, especially in life-threatening situations, the first signal system is activated

and more limited perception of the message takes place mainly in the form, not content. So from a psychological perspective it is questionable whether phrases with negative vocabulary are perceived as positive messages even though their overall meaning is positive. So it has been proved that positive synonyms as the ones pointed out in Figure 3 are much more reliable.

Negative language	Positive language
Do not worry	Relax, everything will be fine.
Why be afraid?	We have reason for hope.
Do not close your mouth!	Keep your mouth open!
It does not hurt much. No pain.	You'll do well
You will not feel anything.	Then you can easily / better ...
After surgery, you won't have problems	You can rest assured
No need to worry about	You can be sure
No need to wait many...	It will soon be your turn...
No waiting	Wait for your turn and it will come quickly
	You will get ...
The drug has no side effects	This drug is very well tolerated
This is not so difficult	It's pretty simple / easy
This medicine is not worse than the previous except that it is so expensive	This drug is as good as the previous, and it is cheaper

Figure 3. Positive and negative language – contrive determinants of positive language in specific medical situations.

The main communicative purpose is achieved in a roundabout way - that is the spirit and meaning of the same information are preserved, but they are expressed in other lexical and syntactic ways. Often the logical focus discreetly shifts from the negative point and is placed on the positive one. Thus the principle of honesty, the requirements and norms in communication are preserved, while the critical moments are approached by verbal buffers. Therefore, this technique requires more words and happens to be more time consuming.

1.4.3. Editing and restructuring bad news expressed by words and phrases with negative connotations by replacing them with synonymous positive ones. It is important to replace words and phrases such as *hopeless, metastases, problem, failure, poor performance, injury, long term treatment, death, died, terminal disease* with expressions that do not provoke feelings of fear, anxiety and hopelessness. In medical discourse this phenomenon is defined as "veil effect", where unpleasant information

is filtered and conveyed with the help of neutral vocabulary as shown in the examples in Figure 4.

Direct bad news announcement	Edited delicate expression
Treatment is a problem. The prognosis is poor. Your situation is hopeless. Will die within 6 months.	We will do our best for your treatment! We will fight all the way! Miracles happen! There is always hope! You should try it! You have enough time to organize your stuff! You can use the next few months to organize important things for you to be with his family!
The child has leukemia. We found osteosarcoma.	The child has a serious blood disorder. There is one foreign body, without which your foot will be better and we will remove it.

Figure 4. Editing direct bad news announcement by using a more delicate expression

A Bulgarian proverb says *Language has no bones, but it can break bones*. This metaphor is an accurate illustration of such situations. It is clear that words can hurt worse than weapons and disease. That is why the addressee should be spared at least by words. Everyone understands what a misfortune a deadly and incurable disease can be, how much pain and anguish it brings to the patient and his/her family. Perhaps this is why recently medical linguistics has started to pay more attention to the semantics, type and shape of the used vocabulary, the manner of speaking about death to terminally ill patients. Researchers suggest that balancing hope with honesty is an important skill for healthcare professionals¹⁰. Many patients seem to be able to maintain a sense of hope despite acknowledging the terminal nature of their illness. Patients and caregivers mostly preferred honest and accurate information, provided with empathy and understanding. The delicate language is one of the sources of hope in broad aspects of life, not just the medical situation. Medical professionals need to recognize this spectrum of hope and try to help their patients even with the words they use while acknowledging the terminal nature of their illness.

1.4.4. Use of Latin/ Greek terms, medical slang and abbreviations

This technique is possible only in a Medical discourse and in our opinion it can be used to facilitate doctor-patient communication in specific situations. Latin and

¹⁰ <http://www.ncbi.nlm.nih.gov/pubmed/18022831> (Mart, 2012)

Greek terms, medical slang and abbreviations are usually unknown to most patients which allows for their various application as an unusual verbal technique:

- consciously achieved encoding of alarming or unpleasant information in the presence of the patient to avoid unnecessary anxiety and stress for example the Latin- English synonyms: *Exitus letalis* (L) - *Death* (En), *Morbus* (L) - *Disease* (En), *Decubitus* (L) - *Bed sore* (En), *Emesis* (L) - *Vomiting* (En), *Infarctus cordis* - *Heart attack* (En), *Tussis* (L) (L) - *Cough* (En), *Epistaxis* (L) - *Nose bleeding* (En), *Halitosis* (L) - *Bad breath* (En);

Or the abbreviations: **COPD** (*chronic obstructive pulmonary disease*), **AAA** (*abdominal aortic aneurysm*), **AS** (*aortic stenosis*), **CAD** (*coronary artery disease*)

- limiting the shape and size of information only to the required minimum;
- convenient and fast professional medical communication using popular and understandable terms and abbreviations such as *diabetes*, *hypertension*, *influenza*, *AIDS*, *BP*, *ECG*, *CI* (*cardiac index*), *CAT* (*computerized axial tomography*).

1.4.5. Replacing professional terminology and elements of medical terms with neutral or descriptive synonyms – words, commonly used vocabulary Figure 5.

Professional terms	Neutral descriptive synonym
antidepressant	relaxing, soothing medicine
pain	discomfort
tooth eruption	cutting teeth
anticoagulant	blood thinner
haemorrhage	bleeding
diuretic drugs	water pills

Figure 5.

1.4.6. Euphemisms – the highest form of lexical diplomacy in medicine

Euphemisms are the highest form of lexical diplomacy in medicine because they are more affordable, decent synonyms of and substitutes for unwanted or inappropriate words for a particular situation. The use of euphemisms is determined by psychological factors, but in healthcare they acquire moral and social characteristics. Euphemisms are necessary for communication with terminally ill adults in hospices and children who suffer from an incurable disease. These patients show specific hypersensitivity due to their condition and age. The consciously chosen language contributes substantially to the achievement of optimal results in diagnosis and treatment. In modern medical practice, mastering the correct use of euphemisms is no

longer a sign of good breeding and medical professionalism, but a legal requirement. In healthcare euphemisms play a special role - they describe and present realities, concepts and facts that cause negative emotions. Euphemisms are used to name stressful medical pathology, and to deliver bad news in a descriptive and acceptable way, e.g. information about cancer, poor prognosis, reporting the death of a patient to his/her relatives. Today it is unacceptable to use direct language to achieve a communicative purpose. Our experience and research has proven that this is a new linguistic phenomenon which should be described as medical euphemisation unlike traditional ethno cultural euphemisation. For example, out of all synonymous phrases referring to **death** only the ones in bold are appropriate in a medical context: *died, **passed away**, **passed**, **passed on**, **is gone**, moved on, expired, croaked, bought the farm, be taken, perish, passed from life temporal to life spiritual, went to meet her Maker, meet one's end, kick the bucket, push up the daisies, join the great majority.*

1.4.7. Grammar tools. A variety of typical morphological and syntax means can help the medical practitioners to create a positive atmosphere, to touch the patient's heart and to improve the treatment effect. The easiest and most frequent of them are mentioned below:

- use of future tense, e.g. *You will feel better; Soon you will feel the effects! Everything will be alright!*
- use of 1st person plural to identify the medical staff with the patient such as:

Today we are better, right? Let us first start with the antibiotic, and then we'll decide what to do! We have a lot of time – we just need to track results over 6 months to feel reassured afterwards! Let's see what happens here!

1.4.8. Humor and fun

Laughter and humor are the nicest and cheapest medicine in the world. They can play a role as specific tools in medical communication in appropriate forms and situations.

Since 1979 a true story about the healing power of humor and laughter has been spread worldwide. It is described in the book "Anatomy of an Illness" by Norman Cousins¹¹. Doctors discovered that the same Norman Cousins had a malignant disease of the bone (Bekhterev's disease), accompanied by terrible pain, with a very poor prognosis and his chance to survive was assessed 1:500. Rather than despair, he

¹¹ Cousins, Norman, *Anatomy of an illness as perceived by the patient: reflections on healing and regeneration*, introd. by René Dubos, New York : Norton, 1979. ISBN 0-393-01252-2

applied unconventional self prescribed therapy for this incurable disease. Cousins voluntarily left hospital, booked a room in a nice hotel and collected all the funny movies that he could find. One after another he had constantly watched various funny movies, laughing heartily and with all the force of each funny scene. A nurse, specifically hired for the purpose read him humorous stories. His friends who came to visit him, received the most rigorous instruction to crack jokes and have fun with him. Soon Cousins realized that after another bout of insane laughter, pain left him for ten minutes. He reported "*I made the joyous discovery that ten minutes of genuine belly laughter had an anesthetic effect and would give me at least two hours of pain-free sleep*"¹². So after six months along with a positive attitude, love, faith, hope, and laughter induced by Marx Brothers films he recovered successfully. The doctors found a complete cure. Of course, such miracles are rare in medical practice; but in contrast, often humor and laughter brighten up tense atmosphere, improve mood and soothe the sick.

Humor is inherent, however, only in people with high intelligence and culture. Therefore, only those doctors and nurses with great erudition and quick thinking have the gift - to see the comic situation, to be able to laugh at themselves and others, and of course - to enjoy laughter.

"Doctor, I keep stealing things. What can I do?"

*"Try to resist the temptation but if you can't, get me a new television"*¹³

2. Non-verbal communication

The simple truth is that nonverbal communication in human relationships, in business, family, and of course - in healthcare is of great importance. Unfortunately, medical and healthcare students are not trained how to improve their own interactive skills. Non-verbal behavior and nonverbal communication components are handled superficially or almost intuitively. All medical professionals acquire highly developed receptive and analytical skills for interpreting their patients' non-verbal signals. This is taught in each discipline and gradually mastered in practice. However, active personal interaction skills are limited or not used to their full capacity. Medical staff's non-verbal communication abilities are associated with outcomes of medical care such as satisfaction and compliance.

¹² http://en.wikipedia.org/wiki/Norman_Cousins#Illness_and_recovery (March, 2012)

¹³ <http://www.wherency.com/jokes/professional-jokes/5425.html> (May, 2012)

2.1. Body language in direct contact in medicine and healthcare

Physicians display non-verbal communication skills by different behavioral manifestations as posture, eye/ physical contact, kinetic signs, gesture, mimics.

Posture of doctors and nurses is the most powerful and visible sign to the patients. Strong positive effects are: a straight body with straight shoulders and back, chin lifted slightly upward. The equivalent/mirror body position of the physician and the patient can be observed for example when the doctor is standing while meeting a patient in the department / office, when he/she is turned in the direction of the patient or is sitting for examination and discussion carried out according to the procedure.

Open position of the doctor's / nurse's body, oriented towards the patient, shown palms with folded fingers predispose to trust and cooperation while a doctor's or nurse's body bent over the patient's body is seen as a concern rather than as a threat and aggression.

A smile is the most powerful non-verbal sign. In patient-medical staff contact, it has a positive role, regardless of whether it is genuine or just a "duty." According to psychologists, people are like a mirror - if you smile - they smile too, if you frown - they frown too. Experienced professionals use smile and positive facial expressions knowingly and purposefully in medical communication as an effective means to demonstrate benevolence, openness and willingness to work.

Physical proximity and physical contact depends on the condition and needs for the diagnostic examination. In fact it is only in medicine that the intrusion in the intimate area of another person is permissible according to Allan and Barbara Pierce¹⁴.

Physical contacts and touching are natural non-verbal actions that are specific for the relationship between the communicators. Only in healthcare, physical contacts and touching are expected and necessary for the job. However, it is perceived that the patient should be touched only for professional purposes such as diagnostic or therapeutic manipulation.

In non-verbal medical communication it is admissible and even recommendable to touch and caress with psychological purpose especially in adults and children. Holding hands, embracing, soothing, touching, patting on the back and shoulder, shorten the distance, express sympathy, willingness to help and warm up the patient's heart.

¹⁴ Алън и Барбара Пийз, *Най-новата книга за езика на тялото*, Издателство СИЕЛА, София, 2012, p. 220

However, every medical practitioner should pay attention to the gender of the person they touch. If a doctor or male employee touches a female patient without any medical reason, it can be seen and interpreted in different ways and it may lead to undesirable consequences such as allegations of a sexual innuendo. This is especially true in obstetrics, gynecology, thoracic and abdominal surgery.

2.2. Additional elements of non-verbal communication in healthcare

In the 21st century many additional nonverbal elements such as general view of the hospital, the appearance, decoration and comfort of the hospital departments and clinics, are becoming increasingly important for optimal communication.

Medical facilities as a clean, comfortable, well-equipped hospital room, a hospital chapel with religious services, an ambient hospital environment such as a park, parking place, garden, fountains alleviates life of patients and contributes to a better mood, which helps to improve communication.

Anxious and worried about their health, patients are extremely sensitive to all non-verbal signals from each member of the medical staff. Our personal observations have found out that patients refuse to talk or do so with great reluctance, if the doctor or nurse does not look good. A clean, neat and even pretty uniform and a good looking appearance would evoke the patient's admiration and respect. A happy doctor's face and warm eyes tend to calm down the patient's heart and optimize mutual communication. Different patterns and colors of medical uniforms help patients find their way more easily in the hospital environment. They aid patients to distinguish different specialists, their status so the patients understand whom to address for what, which also facilitates communication.

Our studies have led to interesting conclusions about the so fashionable lately "three-day beard" for men and hair extension for women. This fashion can be very attractive and comfortable in everyday life, but not in the practice of medicine. Patients expect their physicians to have good grooming, which includes a well-shaven face and hair style, which does not interfere with work¹⁵. So young doctors and nurses, who adhere to this fashion might have problems in establishing and maintaining successful communication.

The personality of a modern medical professional must not only meet the requirements of medical business etiquette, but also contribute in any way to the main goal - fast and efficient medical care.

¹⁵ Виолета Тачева, *Комуникации в здравеопазването. Курс лекции*. CD, МУ, Варна, 2010

All of the above mentioned aspects of non-verbal communication happen to be a decisive factor in contemporary diagnostics and health management.

They play a crucial role in building a positive attitude of care givers and healthcare providers to their patients. International standards in healthcare service demand greater awareness of the key function of communication in medicine. We agree with Kathleen Daily Mock who claims that "*The concept of effective clinician-patient communication is a necessity, not an option. Because communication is both a science and an art that can be learned and mastered, there are many resulting benefits for those who work diligently to improve their technique, not the least of which is increased clinician satisfaction*"¹⁶

The Final Goal of direct and non-direct verbal and non-verbal communication is to unlock the patient's heart to trust the medical staff, to hope and believe in healing, to improve physical and mental health. In this way communication like a magic wand will bring wellness to the patient.

¹⁶ Kathleen Daily Mock, *Effective clinician-patient communication* <http://www.physiciansnews.com/law/201.html> (18.VIII. 2012)

Tajana Tomak*

Teaching foreign languages at the Faculty of Medicine, University of Rijeka: A historical overview

ABSTRACT

This paper offers an overview of the development of teaching foreign languages at the Department of Social Sciences and Medical Humanities, Faculty of Medicine in Rijeka, and its influence on the growth of the Faculty of Medicine in general. The specialization of teaching foreign languages will be considered from its introduction up to the present day when there are different foreign language courses for each study programme. In analysing the collected material, a historical approach was taken, and methods of analysis and synthesis were used. The development of teaching foreign languages began with the English language, and today the teaching of Italian and German has also been introduced. Teaching foreign languages is an integral part of all studies, either as a compulsory or elective course. Foreign language courses introduce international medical terminology and enable students to follow the development of modern medicine. Teaching foreign languages enables both teaching and scientific staff to have a certain freedom in creating teaching materials and referring students to relevant foreign literature. All this has resulted, on the one hand, in faster and better involvement of the Faculty of Medicine in European and world trends of modern medicine, and on the other hand, has given students the necessary skills they are going to need in their professional continuous education.

Keywords: teaching foreign languages, introduction in different study programmes, medical English, Italian, German, textbooks

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Introduction

To trace a specific development, it is important to know *how* and *when* it all began. Therefore, this paper, which discusses the development of teaching foreign languages at the Faculty of Medicine in Rijeka, starts from the foundation of the Faculty of Medicine in Rijeka, and the establishment of the Department of Social Sciences and Medical Humanities, and the introduction of foreign languages in different study programmes. The course of the development of teaching foreign languages and its key events are summarized and they stress the importance of foreign languages in higher education and the modern world in general.

Historical overview of the establishing of the Faculty of Medicine in Rijeka

After the end of World War II the only Croatian faculty of medicine was the one in Zagreb. Due to the consequences of the War on the social situation in our region and a constant lack of medical personnel it was necessary to provide medical education for those interested in it. The idea of establishing the faculty of medicine in Rijeka as a branch of the Faculty of Medicine at the University of Zagreb appeared because an increasing number of medical students came from the Kvarner Bay and neighbouring regions.

An act for the foundation of the Faculty of Medicine in Rijeka was passed in the parliamentary session on the July 12th 1955. Professor Silvije Novak was elected an acting dean. He held the introductory lecture, "*The meaning of the internal medicine today*", on the 21st of November, 1955 in the Town Hall, and that date is marked as the official beginning of the academic year 1955/56 at the Faculty of Medicine in Rijeka.¹ The first academic year enrolled six students in the fifth year of study and twelve graduands.

First teaching staff of the Faculty of Medicine in Rijeka was selected from the experienced and highly respected heads of hospital departments for the clinical courses and available professors from already existing universities in Zagreb and other towns of former Yugoslavia for pre-clinical courses. They all played a significant part in establishing and developing the Faculty of Medicine in Rijeka.

The independence of the Faculty of Medicine in Rijeka was declared by the Executive Council of the Republic of Croatia on the 20th of June 1957. Thus the Faculty of

¹ Anton Škrobonja (Ed.), *Medicinski fakultet Sveučilišta u Rijeci 1955.-2005.*, Medicinski fakultet Sveučilišta u Rijeci, Rijeka, 2005., pp. 19- 20.

Medicine in Rijeka became the first such institution founded in Croatia outside Zagreb. The enrolment of 100 students to the first study year began in the academic year 1957/58.²

The Faculty of Medicine in Rijeka offers today three university programmes of study – Medicine, Dental Medicine, and Sanitary Engineering. There are also five professional undergraduate programmes: Nursing, Midwifery, Physiotherapy, Radiologic Technology and Medical-Laboratory Diagnostics.

Foundation of the Department of Social Sciences and Medical Humanities

Although the foundations for the Department were laid in 1962 when Duško Berlot, philosopher and educator, held the first lecture in the course "*Fundamentals of the social sciences*", the Department of Social Sciences was founded in 1965.³

In the academic year 1965/66, the course was taken over by Božo Pavlinić and continued for the next ten years. In mid-seventies, due to the reform of education in former Yugoslavia, in all schools and faculties were introduced new courses– "*Theoretical basis of Marxism*" and "*Theory and practice of socialist self-management*". The first lecturers of these courses at the Faculty of Medicine were a philosopher Nenad Mišević and a law graduate Đorđe Roganović.⁴

In 1976, a politologist, Ivan Šegota, became the first Head of the Department of Social Sciences.⁵ Due to the efforts of Ivan Šegota and in collaboration with the Faculty of Medicine in Zagreb, in mid-eighties new courses on medical sociology were introduced. Medical sociology was a new scientific discipline already developed in the USA and other European countries, which provided an excellent basis for the development of new interdisciplinary courses that naturally evolved following the changes in the social and political system of the nineties. New courses were: Hippocratic Oath Today (1991/92), Medical Ethics (1992/93), and Introduction to Bioethics (1993/94).⁶

By introducing bioethics as an integral part of almost all courses as well as other professional programmes at the Faculty of Medicine, the Department of Social Sci-

² A. Škrobonja (Ed.), *Medicinski fakultet Sveučilišta u Rijeci 1955.-2005.*, p. 21.

³ Ibid., p. 191.

⁴ Juraj Sepčić (Ed.), *Medicinski fakultet u Rijeci 1955.-1995.*, Medicinski fakultet Sveučilišta u Rijeci, Rijeka, p. 237.

⁵ Ibid., p. 237.

⁶ A. Škrobonja (Ed.), *Medicinski fakultet Sveučilišta u Rijeci 1955.-2005.*, p. 192.

ences largely approached the global trends in medical education. The Department has become connected with the leading scientific centres and bioethical institutions all over the world which has led to a rich international cooperation with world's leading bioethicists. Highly successful work of lecturers and research associates of the Department is also reflected in their publishing and editing activities (journal "*Bioethical Gazette*", numerous scientific and professional articles or papers quoted in many databases and indexes, books, handbooks, journal "*Jahr*" - an annual of the Department,...), international scientific projects, organizing international symposia and congresses on bioethics, round tables and similar.

After the retirement of Professor Ivan Šegota in 2008, the Department has been headed by Associate Professor Amir Muzur. Presently, the teaching and scientific staff has been contributing with their hard work and dedication to educational and scientific development of the Department and the Faculty of Medicine in general.

The Department of Social Sciences was renamed as the Department of Social Sciences and Medical Humanities by the decision of the Faculty Council on the 19th of January 2010.⁷ The courses on the history of medicine, communication with the deaf, physical education, and foreign languages are also taught within this Department.

Foreign language teaching

The knowledge of foreign languages is increasingly important in the world today. Foreign languages are one of the essential components of modern education, and are part of the curricula of all study programmes at the Faculty of Medicine.

The teaching of foreign languages at the Department of Social Sciences was launched in the academic year 1987/88. The first lecturer was Tatjana Paškvan Čepić, a teacher of English and French, who held courses on foreign languages from 1987 to 1994. English language course was introduced as a mandatory course in the first and second year of the Study of Medicine. The following year English was also introduced as a mandatory course in the first and second year of the Study of Dental Medicine.

The academic year 1988/89 brought some changes in the teaching foreign languages. With the arrival of lecturer Anamarija Gjuran-Coha, a teacher of English and Italian, students were offered foreign languages as a mandatory course in the first and second year of study, with a possibility of choosing between the three languages, i.e. English, Italian or French. Tatjana Paškvan Čepić taught English and

⁷ Amir Muzur (Ed.), *Medicinski fakultet Sveučilišta u Rijeci 2005.-2010.*, Medicinski fakultet Sveučilišta u Rijeci, Rijeka, p. 79.

French, and Italian was introduced by Anamarija Gjuran-Coha, who also held courses in the English language. In the academic year 1989/90, foreign languages were introduced in the programmes of professional education for Nursing, Medical-Laboratory Diagnostics and Physiotherapy. The course in foreign language for these professional study programmes was mandatory in the first and second year of study.

The teaching of foreign languages was also mandatory in the first and second year of a new university four-year study programme for sanitary engineers organised in the academic year 1990/91. In the following years the third and fourth year students of Sanitary Engineering were offered foreign languages as an elective course.

In 1992, a new lecturer Brigita Bosnar Valković, a teacher of English and German, joined the Department of Social Sciences. She lectured English at the Faculty of Medicine till the end of 1995. In the academic year 1993/94 the course on foreign languages was introduced to students of Radiologic Technology as a mandatory course in the first and second year of study. This has not been changed until the present day.

The academic year 1994/95 marked certain modifications of the curricula of the Faculty of Medicine.⁸ All study programmes were reformed and elective courses were introduced in all study programmes. Foreign languages included 30 hours of seminars in each semester and the course on foreign language could be elected as a major elective course. The choice of foreign languages was between English, Italian and German. Some changes occurred in the same academic year for students of Dental Medicine. Foreign language was abolished as a mandatory course, and offered as an elective course. This has remained unchanged till today. In the same academic year the students of Sanitary Engineering could choose the course on foreign language as an elective course but only in the first year of study.

In 1996 a teacher of English and French, Arijana Krišković was employed as a new lecturer. Some of the courses were also held by a lecturer Suzana Jurin, a teacher of English and German, who was a collaborator from 1997 to 2009.

At the beginning of 2005, the Croatian system of higher education was affected by major changes due to the Bologna process. The European Credit Transfer System (ECTS) was adopted into all the study programmes, as it was at other European universities. At the Faculty of Medicine in Rijeka all undergraduate and graduate studies were reformed to agree with the principles laid out in the Charter *Magna Charta Universitatum* signed in Bologna in 1988.⁹ These reforms have contributed to growing popularity of foreign languages and thus emphasized the teaching of fo-

⁸ A. Škrobonja (Ed.), *Medicinski fakultet Sveučilišta u Rijeci 1955.-2005.*, p. 32.

⁹ A. Škrobonja (Ed.), *Medicinski fakultet Sveučilišta u Rijeci 1955.-2005.*, p. 33.

reign languages as one of the significant elements in the education of future academics. Namely, the alignment between the systems of higher education and improvement of the quality of teaching are aimed at achieving better cooperation of the faculties and collaboration with scientific institutions abroad, and greater mobility of students. Foreign languages teaching at the Department of Social Sciences was also remodelled to meet the new requirements of the Bologna process.

Medical English has become a mandatory course of the Study of Medicine and has been extended through all six years of study. The teaching is held in the form of seminars and includes 20 hours of seminars each year. During the course students have to prepare a seminar paper in English on topics related to the professional (main) courses of the particular year. While writing the seminar paper students are referred to use literature in English which may include textbooks, manuals, encyclopedias, research and professional articles, Web sites, etc. The purpose of writing and oral presentation of a seminar paper is multiple. The students take an active part in writing a paper, engage their creative potentials, and are focused on integrating all the skills around a certain topic. They deal with the familiar topics, and establish the correlation with the material they have already learnt about in the main courses. Therefore, they are more confident to express their own ideas, thoughts and more open to talk about their personal experience which boosts their self-awareness in the adoption of English.

The Study of Dental Medicine has not undergone any significant changes regarding the course on foreign languages. Foreign language teaching remained an elective course, held in the first and second year of Study of Dental Medicine and the same applies to the Study of Sanitary Engineering. The two languages offered to students were English and Italian, and since 2010 with the arrival of a new lecturer Katja Dobrić, a teacher of English and German, the German language has also been offered as a course. The courses are organized in the form of seminars – 30 teaching hours each year. They are based on the professional themes and topics that are interesting and relevant to students. The intention of the course is to help students to relate the foreign language to their profession and to apply the knowledge they acquire to every day life. For example, students of dental medicine who attend the English course are introduced to medical and dental terminology. During the course students read and translate professional texts, write abstracts, discuss certain topics, write and present their seminar papers. The course material consists of a textbook "*English for Dental Medicine Students*" written by Arijana Krišković and published in 2004. There is also a textbook "*English for Graduate Sanitary Engineers*", written by Anamarija Gjuran-Coha.

An entirely new mandatory course Business English in Medicine (30 teaching hours) was introduced in the first three years of study of Organisation, Planning

and Management in Healthcare in the academic year 2005/06 when the new study programme was established. The textbook "*English in Management*" used during the course was written by Anamarija Gjurán-Coha in 2007.

As far as the three-year professional programmes in Nursing, Radiologic Technology and Midwifery are concerned, foreign languages are taught in the first and second year of study as a mandatory course. And for students of Medical-Laboratory Diagnostics and Physiotherapy, the course on foreign language is mandatory in the first study year. The students of professional study programmes attend 30 hours of seminars, except for students of the Study of Medical-Laboratory Diagnostics and of the Radiologic Technology who attend 40 hours of seminars a year. The textbook "*English in Physiotherapy*" for students studying physiotherapy was written by Arijana Krišković and published in 2009.

The scientific development and professional accomplishments of the Department of Social Sciences and Medical Humanities are evident in the active work of the lecturers of foreign languages, their great efforts to improve the teaching process, participation in congresses and symposia, collaboration in scientific projects and also their publishing activities. Presently there are two lecturers who teach foreign languages at the Department, and one collaborator for the German language. The lecturer Anamarija Gjurán-Coha, who defended her doctoral thesis entitled "*Calques and loanwords of English origin in medical terminology*" on the 17th of January 2008, holds today the academic position as Assistant Professor.¹⁰ She has written many scientific and professional papers quoted in different databases and several textbooks. Some of them, written for the English courses, have already been mentioned, but there are some more textbooks used in foreign language courses - "*Selection of texts in English for students in the 1st year of study*", and "*Selection of texts in English for students in the 2nd year of study*" – that were co-authored by Anamarija Gjurán-Coha and Tatjana Paškvan Čepić, and published in 1994. The Assistant Professor Anamarija Gjurán-Coha is also an author of the textbook "*Selection of the texts in Italian for students of Medicine*" and a new textbook - "*English in Nursing*" is to be published soon. The lecturer Arijana Krišković was elected in 2007 to the teaching position of senior lecturer, and on the 24th of June, 2008, she defended her doctoral thesis entitled "*Metonymy in English and Croatian of biomedical sciences: cognitive linguistic analysis*".¹¹ Arijana Krišković is also author of scientific and professional papers, several textbooks (already mentioned in the text above) and presently prepares a new textbook - "*English for Radiologic Technologist*".

¹⁰ A. Muzur (Ed.), *Medicinski fakultet Sveučilišta u Rijeci 2005.-2010.*, p. 79.

¹¹ A. Muzur (Ed.), *Medicinski fakultet Sveučilišta u Rijeci 2005.-2010.*, p. 79.

The collaborator Suzana Jurin defended her doctoral thesis entitled "*Text types in the corporate management*" on the 19th of February, 2010.¹²

The textbooks written in foreign language for a specific study programme contain professional medical texts with relevant topics and many vocabulary and grammar activities that enable students to acquire grammar units, and offer them to use language independently while retelling stories, summarising, writing abstracts of an article, expressing their personal opinions on professional topics and issues. The topics are relevant and stimulating for students and their professional interests and they provide a basis for further personal development that enables students to use the professional literature in foreign language.

Conclusion

Foreign language teaching is an integral part of all medical programmes at the Faculty of Medicine in Rijeka, either as a mandatory or elective course. Each course programme is based on different professional interests and specializations of students. Foreign language introduces students to international medical terminology which helps them in consulting foreign literature, journals, Web sites, etc., and thus enables them to keep track of the development of modern medicine. Many activities of future physicians require the knowledge of foreign languages. One of them is easier monitoring and thus better understanding lectures and presentations of experienced foreign scientists, who are invited as guest lecturers from abroad. Further, oral communication skills in a foreign language, which is one of the principal aims of the course, provide students more options in selecting the course of their professional growth. Thus, they will have a possibility to apply for different scholarships or internships. For example, international student exchange, as one of the goals of higher education, includes professional practice in world reputable centres, gaining experiences in partner institutes abroad, working on different research projects, etc. With the developed written skills future physicians, researchers and scientists will be able to write and publish scientific and professional articles in foreign language which also gives them an opportunity to achieve the indispensable professional reputation. This has resulted, on the one hand, in faster and better involvement of the Rijeka Faculty of Medicine in European and world trends of modern medicine, and on the other hand, has given students the necessary skills needed in their professional continuous education.

¹² Ibid., p. 80.

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Tajana Tomak

Povijesni pregled nastave stranih jezika na Medicinskom fakultetu u Rijeci

SAŽETAK

Članak nudi prikaz razvoja nastave stranih jezika unutar Katedre za društvene i humanističke znanosti u medicini Medicinskog fakulteta u Rijeci, te kako je to utjecalo na razvoj Medicinskog fakulteta u cjelini. Praćen je tijek specijalizacije nastave stranih jezika od početka do diferencirane nastave stranih jezika za pojedina studijska usmjerenja. U obradi prikupljenih informacija korištene su povijesna metoda, metoda analize i sinteze i komparativna metoda. Razvoj nastave stranih jezika tekao je stupnjevito i pratio je razvoj Medicinskog fakulteta. Počelo se s nastavom engleskog jezika, a danas se na Katedri održava i nastava talijanskog i njemačkog jezika. Nastava stranih jezika je integralni dio svih studijskih programa Medicinskog fakulteta, bilo kao obvezatni bilo kao izborni kolegij. Po studijskim programima diferencirana nastava stranih jezika studente je upoznala sa internacionalnom medicinskom terminologijom i olakšala im praćenje suvremenog razvoja medicine. Nastava stranih jezika za studente omogućuje znanstveno-nastavnom osoblju slobodno kreiranje nastavnog programa i upućivanje studenata na relevantnu stranu literaturu. Sve to rezultiralo je, s jedne strane bržim i kvalitetnijim uključivanjem Medicinskog fakulteta u europske i svjetske tokove suvremene medicine, a s druge strane pružilo je studentima neophodne vještine potrebne za njihovo profesionalno cjeloživotno obrazovanje.

Ključne riječi: nastava stranih jezika, različiti studijski programi, medicinski engleski, talijanski jezik, njemački jezik, udžbenici

Zdenka Uherová*, Anna Hornáková**

Medical terminology and its particularities

ABSTRACT

Nowadays a lot of job offers in the foreign countries more often need the requirements of adequate foreign language professional communication. Highly specialized job positions require the mastery of professional language and the associated professional terminology as well, which is necessary for professional communication in the specific field of work. This is also true in the medical field, where the mastery of professional medical terminology should be the most preciseness. Medical terminology is constantly developing, completing and enhancing as the result of scientific research advance and use of new approaches, methods and the appearance of new diseases and syndromes. There are currently about 170, 000 medical terms. These include drug names, names or identifications of body parts, organs and parts of the organs, the names of body functions, the names of diseases, examinations, operational methods and interventions. The active medical vocabulary should contain at least 6,000 to 8,000 terms. Furthermore, each medical subdiscipline forms its own terminology all the time, but the experts from related fields do not often understand it.

In our paper we focus on a brief history of medical terminology, its development, current medical terminology and some particularities of the German medical terminology.

Keywords: terminology, language, vocabulary, professional communication

The origin of medical professional language can be found in ancient Greece. In the writings of Greek philosophers and physicians such as Hippocrates and Aristoteles, there are many names of diseases which have been preserved till today. Therefore, a clinical professional terminology includes the Greek root words. Even during the

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Roman Empire doctors have used their own mother tongue - Greek, for example as a physician- Galen. At the same time some doctors as Celsius and Plinius have begun to publish their work in Latin. After the fall of the Roman Empire there were well-known doctors of other nationalities, for example Persian physician Avicenna. In the 11th century first translation schools in Italy and Spain began to develop, for example in Salern and in Toledo, but also in the monasteries in the German-speaking territories (St. Galen, Fulda), where there were some translated Arabic texts into Latin.

Therefore a lot of Arabic and Persian words have been taken together with the Greek words, which used Latin later (e. g alcohol, Elixier). In the following centuries, the Latin consolidates its position. In the 16th century Belgian physician Andreas Vesalius (1514 - 1564) published his work dealing with human anatomy entitled "De humani corporis Fabrica".

He tried to ensure that derived professional terms were replaced by Latin in other languages, which led to the emergence of many new anatomical terms.

The current medical terminology is influenced by Greek and Latin languages where until the 19th century Latin was called "the language of science."

Even in 1880 in the German Empire a medical book in Latin was published, but Latin language competition started to develop in English, German or French (Drainage, Pinzette). Many medical discoveries in the 19 century have contributed to the fact that they started using other new terms (e.g. Bazillus, Enzyme, Allergie).

Current medical terminology

There are approximately 170,000 medical terms together including: 80 000 medicine names, 10,000 names or labels for body parts, organs and parts of organs, 20,000 names to denote functions of the bodies, 60 000 names of diseases, tests, examinations and surgical procedures. Active vocabulary contains at least 6000 to 8000 terms. In addition each medical subdiscipline is able to create its own terminology, which experts from related fields do not often understand.

Medical terminology has its origin in Latin and Greek. The terms are either one-word names (e.g., heart, femur, gastritis) or terms composed of several words (e.g., fossa cranii anterior). Medical terminology contains 80% Latin anatomical nomenclature - Nomina Anatomica and 20% Greek names of diseases.¹

¹ Heller, B. (2000): Medizinische Begriffs- und Dokumentationssysteme WS 2000/2001 (online), www.people.imise.uni-leipzig.de/barbara.heller/Folien-Vorlesung-terminologie.pdf

There is the only one terminological system which is internationally accepted and its Systematized Nomenclature of Medicine (Systematized Nomenclature of Medicine, Clinical Terms, SNOMED CT²).

Clinical vocabulary can be characterised by

- names of primarily Greek origin,
- not having the form of nomenclature,
- being influenced by modern languages, especially English,
- having more than 30 000 eponyms,
- implementing new terminology concerning new diseases.

Anatomical vocabulary can be characterised by

- names of primarily Latin origin,
- having the form of nomenclature,
- small influence of modern languages,
- being relatively constant ³

Heller⁴ provides an overview of previous congresses IANC (International Anatomical Nomenclature Committee) focused on the anatomical nomenclature:

- BNA (Basler Nomina Anatomica) - 1895
- JNA (Nomina Anatomica Jenenser) - 1935
- PNA (Pariser Nomina Anatomica) - 1955 (basis for the current terminology)
- Congress in Wiesbaden - 1965

Basic principles of PNA:

- Each organ should be marked only by a single term,
- Terms should preferably come from Latin,
- Short phrases should be used,
- Ephonymes should be avoided,
- Organs topographically close to relationship should have similar names (e.g., vena femoralis and arteria femoralis),
- A variety of attributes should be expressed contradictory (e.g., major and minor),
- Terms should be easily to remember, concise and descriptive.

A professional language uses the general language basis of mother tongue and it means vocabulary and grammar as well as professional terms, which comprise a set of terms.

² Kňazovická, K. (2011): Current Problems of Translation of Medical Terms in Surgery and their Influence on Everyday Practice. *Kľúčové kompetencie pre celoživotné vzdelávanie II. Ročenka CCKV PU v Prešove*, Vydavateľstvo PU v Prešove, Prešov, 399p., ISSN 1338-3388.

³ Bujalková, M. (2008): Quo vadis, terminology medica? *Kultúra slova*.42(6), 321-326

⁴ Heller, B. (2000): *Medizinische Begriffs- und Dokumentationssysteme WS 2000/2001* (online), www.people.imise.uni-leipzig.de/barbara.heller/Folien-Vorlesung-terminologie.pdf

The term requires that we name it precisely and clearly, without the possibility of different interpretations⁵. Poštolková, Roudný, Tejnora, 1983 (In Dziganova⁶) point out that terms unlike nonterms are often ambiguous and their meaning depends on context and they are independent of context and can also be used in isolation.

According to Pacovský, Sucharda⁷ medically correct term should be:

1. clear - it must have only one definition, and it must be correct whenever the term is used. It is often difficult, even for this reason that medicine is more specialized and individual departments have their own nomenclature,
2. concise - it should be chosen such an expression that describes the concept the best. In medicine, currently there have been some terms of the mandatory nomenclature, not only in certain fields. All fields of medicine have to use such terms at all. The following examples have been presented by the official anatomical nomenclature (Nomina Anatomica - NA), chemical nomenclature, the nomenclature of pathology (SONP-Systematic Nomenclature of Pathology), nomenclature of bacteria and other microorganisms etc.,
3. brief - it should meet the requirements of appropriate documentation and archival using the modern technical means (databases).

German medical terminology

According to Bujalkova⁸ professional language used in medicine does not involve only the so called involves not only so called "termini technici", but there are also special and essential professional terms whose conceptual content and design are an internationally binding set and are used mainly in written communication among professionals. Bujalkova⁹ continues that there are also professional names in national languages (German terms) which form the counterpart referred terms and are a kind of communication bridge between experts and laymen. Trivial names (Trivialbezeichnungen) are mostly Germanized foreign words which are not made according to the standards of terms, but stand about midway between these two categories of professional titles.

They differ from "termini technici" using mostly Germanized endings, e.g.:

⁵ Dziganová, B. (2002): Terminology as a discipline (online), www.juls.savba.sk/ks/2002/3/ks2002-3.pdf

⁶ Dziganová, B. (2002): Terminology as a discipline, p. 19

⁷ Pacovský, V., Sucharda, P. (2008): *Jazykozpyt medicíny*. Galen, Prague. 130 s. ISBN 978-80-7262-514-7

⁸ Bujalková, M. (2004): German Language specific medical terminology (online), [www.2.fhv.umb.sk/Publikacie/2004/Odborna 20komunikacia%20202.pdf](http://www.2.fhv.umb.sk/Publikacie/2004/Odborna%20komunikacia%20202.pdf).

⁹ Bujalková, M. (2004): German Language specific medical terminology, p.112

Latin name	Term	Trivial name
cancer	Carcinoma	Karzinom
apparatūs	Apparatus	Apparat
capsula	Capsule	Kapsel

In medical terminology we can also meet the terms established according to the name of their discoverer. These are called eponyms - Personennamen ("eponym - Begriffe"), for example Cramer - Schiene, Credit - Handgriff, Crohn - Krankheit, Alzheimer - Krankheit, Röntgen - Tomography, Parkinson - Syndrome, but also Röntgendarstellung, Parkinsonism¹⁰.

Currently the German medical terminology has been constantly enriched by new terms from other languages, especially from English, e.g. Bypass, Transmitter, Shunt, which have become an integral part of the German medical terminology¹¹.

Selected prefixes used in medical terminology and their meaning in German:

Prefix	Meaning	Example
<i>a-, an-</i>	un (Verneinung)	<i>Analgesie</i> - analgesia
<i>a-, ab-</i>	ab, entfernt von	<i>Abnabelung</i> - cutting the umbilical cord
<i>ad-</i>	an, heran, hinzu	<i>adduzieren</i> - attract
<i>anti-</i>	gegen	<i>Antikörper</i> - antibody
<i>auto-</i>	selbst, eigen	<i>Autoantigen</i> - own antigen
<i>con-, com-, kon-</i>	zusammen	<i>Konvergenz</i> - convergence
<i>contra-, kontra-</i>	gegen	<i>kontralateral</i> - lying on the opposite side
<i>de-</i>	ent-, von...weg	<i>Dekontamination</i> - decontamination
<i>dys-</i>	Fehl-, Miss-,	<i>Dysfunktion</i> - dysfunction
<i>ex-</i>	aus, heraus	<i>Extension</i> - stretch
<i>en-, endo-</i>	in, innerhalb	<i>Endoprothese</i> - endoprosthesis
<i>epi-</i>	auf, darauf	<i>Epidermis</i> - the skin
<i>hetero-</i>	verschieden	<i>heterogen</i> - heterogeneous
<i>homo-</i>	gleich	<i>homosexuell</i> - homosexual
<i>hyper-</i>	über, übermässig	<i>hypertonisch</i> - hypertonic
<i>hypo-</i>	unter, unterhalb	<i>Hypofunktion</i> - reduced function

¹⁰ Neuhaus, H. (1997): *Sprache, Praxis und Patient*, H. Stam GmbH - Köln.

¹¹ Grundmann, K. (2008): Materialien zur medizinischen Terminology (online), www.uni-marburg.de/fb20/evbb/lehre/ws2008/einleitung-pdf.

Prefix	Meaning	Example
<i>im-, in-</i>	1. in, hinein, 2. Verneinung	<i>Inoperabilität</i> - inoperability
<i>inter-</i>	zwischen	<i>Interkostalmuskel</i> - intercostal muscle
<i>intra-</i>	in...hinein, innerhalb	<i>intravenös</i> - intravenous
<i>Os-, Osteo-</i>	Knochen	<i>Osteoarthritis</i> - osteoarthritis
<i>para-</i>	neben, bei	<i>paravenös</i> - paravenous
<i>post-</i>	nach	<i>postoperativ</i> - postoperative
<i>pro-</i>	für, vor	<i>Proenzym</i> - proenzyme
<i>sub-</i>	unter, unterhalb	<i>sublingual</i> - sublingual
<i>super-, supra-</i>	über, oberhalb	<i>Supersekretion</i> - excessive secretion
<i>Ultra-</i>	jenseits, mehr als	<i>Ultraschalluntersuchung</i> - ultrasound

Selected suffixes used in medical terminology and their meaning in German:

Suffix	Meaning	Example
<i>-algie, -algesie</i>	Schmerz	<i>Neuralgia</i>
<i>-ektasie</i>	Erweiterung	<i>Venektasie</i> - extension vein
<i>-gen</i>	bewirken	<i>pathogen</i> - pathogenic
<i>-gramm</i>	Geschriebenes	<i>Elektrokardiogramm</i> - electrocardiogram
<i>-graphie</i>	Aufzeichnung	<i>Elektrokardiographie</i> - electrocardiography
<i>-itis</i>	Entzündung	<i>Nephritis</i> - inflammation of the kidneys
<i>-logie</i>	Lehre	<i>Histologie</i> - histology
<i>-lyse</i>	Auflösung	<i>Dialyse</i> - dialysis
<i>-phil</i>	Neigung zu	<i>hydrophil</i> - hydrophilic
<i>-phob</i>	Abneigung gegen	<i>Hydrophob</i> - hydrophobic
<i>-skopie</i>	Betrachtung	<i>Endoskopie</i> - endoscopy
<i>-tomie</i>	Schnitt, Eröffnung	<i>Appendektomie</i> - removal of the appendix
<i>-zid</i>	tötend, vernichtend	<i>bakterizid</i> - bactericidal, destroying bacteria
<i>-zyten</i>	Zellen	<i>Leukozyten</i> - leukocytes, white blood cells

(Neuhaus¹², Mokrošová¹³, Roche Lexikon Medizin¹⁴)

¹² Neuhaus, H. (1997): *Sprache, Praxis und Patient*, H. Stam GmbH - Köln

¹³ Mokrošová I. (2002): *Germany - Czech, Czech - German dictionary*. Grada Publishing, Praha, p. 910.

¹⁴ 14 Roche Lexikon Medizin. (2003): München, Jena: Urban & Fischer Verlag, 5 Auflage

In the case of writing the taken over and Germanized simple terms the following can be applied:

- Instead of c is written k/z, for example. Appendizitis, Ulcer, Zervix,
- Instead of ae, oe is written ä, ö, for example. Hematology, Anämie,
- In chemical terms, C is written examples Cumarin, Codein, Cobalt, Cannabinoid, Carbonylverbindung, exceptions are Potassium, Krypton,
- Nouns in conjunction with proper name (eponyms) are written with a hyphen, e.g. Basedow - Krankheit, Down - Syndrome, Douglas - Abszess,
- Only exception creates often used terms that are written together, such as e.g. Röntgenstrahlen.

Proper "terminus technicus" - mostly a combination of multi-word in German medical text retains its Latin form. However, the first noun in the German version is spelled with a capital letter, e.g. *Musculus flexor carpi radialis*¹⁵.

Conclusion

However, mastering of professional terminology for health care professionals is obviously a necessity. Professional language with its specific vocabulary and terms has been used for better understanding, naming of the findings and results of examinations, keeping the documentation for the preparation of lectures and publications. The usage of new therapies and techniques and the appearance of new diseases and syndromes have contributed to enriching the medical terminology. Medical terminology has been constantly evolving, updating and improving as a result of the scientific progress in research.

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¹⁵ Mokrošová I. (2002): *Germany - Czech, Czech - German dictionary*. Grada Publishing, Praha, p. 720.

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Marin Vodanović*, Ana Ostroški Anić

Hrvatsko biomedicinsko nazivlje – izazov za jezikoslovce

SAŽETAK

Institut za hrvatski jezik i jezikoslovlje započeo je 2008. projekt "Hrvatsko strukovno nazivlje" koji financira Hrvatska zaklada za znanost. Unutar toga koordinacijskog projekta pokrenuto je više podprojekata. Hrvatsko stomatološko nazivlje (2009. – 2010.) i Hrvatsko anatomsko i fiziološko nazivlje (2012. -) projekti su Stomatološkog fakulteta Sveučilišta u Zagrebu koji imaju dvostruku svrhu: doprinijeti izgradnji hrvatskoga biomedicinskog nazivlja i popularizirati njegovu uporabu među liječnicima, stomatolozima, znanstvenicima te studentima medicine i stomatologije.

Rezultati projekta pokazali su da dobro pripremljeni, multidisciplinarni i ciljani projekti mogu unaprijediti strukovni jezik, spriječiti pretjeranu uporabu tuđica i neodgovarajućih prijevoda u hrvatskom jeziku, a profesionalno prevođenje učiniti znatno jednostavnijim i pouzdanijim. Sve to podiže kompetitivnost hrvatskih znanstvenika na međunarodnoj razini i pridonosi mogućnosti uključivanja hrvatskih znanstvenika, liječnika i stomatologa u europske projekte.

Ključne riječi: hrvatski jezik; terminologija; strukovno nazivlje; stomatologija; biomedicina

Uvod

Ulaskom Republike Hrvatske u skupinu zemalja članica Europske unije hrvatski jezik postaje jedan od njezinih službenih jezika. Europska unija ima 27 država članica i 23 službena jezika: bugarski, češki, danski, engleski, estonski, finski, francuski, grčki, irski, latvijski, litavski, mađarski, malteški, nizozemski, njemački, poljski, portugalski, rumunjski, slovački, slovenski, španjolski, švedski i talijanski. Pri pristupanju

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Europskoj uniji svaka država članica određuje koji će joj jezik ili jezici biti službeni. Europska politika službene višejezičnosti jedinstvena je u svijetu i aktivno potiče ljude da govore i pišu vlastitim jezikom (1-3). Unatoč tomu u pojedine jezike, osobito u jezike brojčano malih naroda svakodnevno nekritički ulaze nove riječi i nazivi stranog podrijetla. To se događa kako u standardnome hrvatskom jeziku tako i u jeziku pojedinih struka. Brojni su uvjeti koje je potrebno ispuniti da bi neki jezik postigao međunarodno priznat status, a jedan je od temeljnih uvjeta sustavno izgrađeno nazivlje pojedinih struka. Nebriga za stvaranje hrvatskoga nazivlja i nekritičko prihvaćanje tuđica i ostalih posuđenica sustavno ugrožava opstojnost hrvatskoga jezika, a time i njegov međunarodni status.

Hrvatski jezik sve češće biva "obogaćen" novim riječima koje potječu iz stranih jezika, a najviše iz engleskoga. Te nove riječi možemo svakodnevno pronaći u tisku, na televiziji, radiju i naravno, na internetu. Ako ne poznamo jezik iz kojega potječu, vrlo vjerojatno nećemo biti u stanju shvatiti njihovo značenje. U općem jeziku, ponekad ćemo na temelju konteksta moći razumjeti njihov smisao, međutim problem postaje puno složeniji u stručnim i znanstvenim tekstovima koji zahtijevaju točno, precizno i pouzdano razumijevanje značenja, u tekstovima u kojima improvizacije u prijevodu nisu ni poželjne ni dopuštene. U takvim situacijama autori odnosno prevoditelji najčešće pribjegavaju najjednostavnijem rješenju, a to je nekritičko uvrštavanje stranog naziva u hrvatski tekst bez poštivanja hrvatskog pravopisa i normi hrvatskoga standardnog jezika. Kada se jednom naziv koji nije prilagođen hrvatskomu jeziku uvrsti u neki hrvatski tekst, posebice ako se radi o knjizi, udžbeniku, članku ili o bilo kojem drugom tekstu na koji se može naknadno referirati, njegov se status teško može kasnije promijeniti (4-6).

Namjera je ovoga članka na primjeru hrvatskoga biomedicinskog nazivlja iz područja stomatologije, anatomije i fiziologije pokazati jedan dobar način kako se hrvatski jezik može zaštititi od neprimjerene uporabe tuđica te istovremeno obogatiti novim nazivima koji su u skladu s normama hrvatskoga standardnog jezika.

Hrvatsko strukovno nazivlje (STRUNA)

Hrvatska zaklada za znanost krajem 2007. godine odlučila je poduprijeti inicijativu Vijeća za normu hrvatskoga standardnog jezika pri Ministarstvu znanosti, obrazovanja i sporta za izgradnju i njegovanje hrvatskoga strukovnog nazivlja. Stoga je raspisala prvi krug natječaja za izbor nacionalnog koordinatora izgradnje hrvatskoga strukovnog nazivlja. Na natječaju je izabran Institut za hrvatski jezik i jezikoslovlje, koji je 2008. godine započeo projekt "Hrvatsko strukovno nazivlje (STRUNA)".

Cilj je projekta uspostaviti sustav koordinacije terminoloških djelatnosti u svim strukama u Hrvatskoj i tako doprinijeti poboljšanju kakvoće i učinkovitosti visokog obra-

zovanja i znanstvenoistraživačkog rada izgradnjom ujednačena i verificirana nazivlja kojim će se moći služiti stručnjaci svih struka, ali i zainteresirana javnost. U tu je svrhu uspostavljena istraživačka terminološka mreža i znanstvena suradnja među ustanovama koje se bave različitim aspektima terminološkog rada. Da bi se ciljevi projekta ostvarili, osmišljena su načela za uspostavu i odabir odgovarajućih naziva te su organizirane radionice u kojima se stručnjaci obrazuju i osposobljavaju za terminološki rad. Izrađena je baza podataka e-Struna u koju se po ujednačenim načelima unose definirani nazivi svih struka te njihove istoznačnice na hrvatskome jeziku i istovrijednice na nekoliko europskih jezika. Nazive i definicije u terminološku bazu podatka unose stručnjaci pojedinih struka, kojima Institut za hrvatski jezik i jezikoslovlje osigurava kroatističku i leksikografsku provjeru i potvrdu predloženih naziva (7).

U okvirima projekta STRUNA Hrvatska zaklada za znanost podupire projekte izgradnje hrvatskoga strukovnog nazivlja za područja koja se u današnje doba najbrže razvijaju, primjerice za područje europske pravne stečevine, računalnih znanosti, gospodarstva, financija, promidžbe, ali i za sva ostala znanstvena područja. Za sudjelovanje u ovim projektima mogu se prijaviti stručnjaci zaposleni na sveučilištima, fakultetima, veleučilištima, visokim školama, javnim institutima, strukovnim udrugama, nevladinim organizacijama i državnim agencijama ili stručnjaci angažirani na navedenim pravnim osobama po drugoj pravnoj osnovi, samostalno ili u suradnji s drugim ustanovama i/ili stručnjacima iz zemlje i inozemstva. Do kraja 2012. godine u okviru STRUNE sudjelovalo je sveukupno 17 projekata, od čega je 13 projekata završeno.¹ 10 je projekata prošlo i završna redakturu te je njihovo nazivlje javno dostupno u tražilici na adresi struna.ihjj.hr.

Projekti HRSTON i HRANAFINA

Unutar projekta STRUNA pokrenuti su jednogodišnji projekti HRSTON - Hrvatsko stomatološko nazivlje (2009. – 2010.) i HRANAFINA – Hrvatsko anatomsko i fiziološko nazivlje (2012. – 2013.) koje financira Hrvatska zaklada za znanost, a Stomatološki fakultet Sveučilišta u Zagrebu ustanova je nositelj projekta. Ciljevi su projekata sustavna izgradnja hrvatskoga biomedicinskog nazivlja (stomatološkog, anatomskog i fiziološkog), zasnovana na temeljima interinstitucionalnog i multidisciplinarnog pristupa u terminološkom radu, te popularizacija uporabe hrvatskoga biomedicinskog nazivlja među njegovim korisnicima.

Ti projekti potiču prirodan protok znanja, znanstvenih i kliničkih dostignuća i informacija na hrvatskom jeziku u biomedicinskom području, što postaje posebno

¹ Uz već dostupna nazivlja iz područja brodstrojarstva, fizike, građevinarstva, kartografije i geoinformatike, kemije, korozije i zaštite materijala, polimera, stomatologije, strojnih elemenata i zrakoplovstva, u tražilici će se uskoro moći pretraživati i nazivlja iz područja antropologije, pomorstva i prava Europske unije.

bitno u trenutku ulaska Republike Hrvatske u Europsku uniju, kada hrvatski jezik postaje jedan od njezinih službenih jezika. Projekti također povećavaju konkurentnost hrvatskih znanstvenika s područja biomedicine u europskim znanstvenim krugovima te olakšavaju uvođenje i provođenje biomedicinskih studijskih programa na stranom jeziku, čime se hrvatska sveučilišta čine kompetitivnijima i poželjnijima stranim studentima (4,8).

U provođenju projekata i ostvarenju njihovih ciljeva osim Stomatološkog fakulteta Sveučilišta u Zagrebu i Instituta za hrvatski jezik i jezikoslovlje sudjeluje skupina od 50-ak suradnika s pet institucija iz Hrvatske i inozemstva: Medicinski fakultet Sveučilišta u Zagrebu, Medicinski fakultet Sveučilišta u Rijeci, Medicinski fakultet Sveučilišta u Splitu, Johannes Gutenberg – Universität, Mainz, Njemačka i University of Pennsylvania, Philadelphia, SAD.

Tijekom provedbe projekata stvoren je popis referentne literature za izgradnju baze biomedicinskog nazivlja s više od 100 naslova domaćih i stranih autora. Izrađene su projektne mrežne stranice (<http://hrston.sfzg.hr> i <http://hranafina.sfzg.hr>) koje pružaju brojne informacije vezane uz biomedicinsko nazivlje: mogućnost dobivanja stomatoloških jezičnih savjeta *online*, mrežne seminare i odgovarajuće elektroničke publikacije. U sklopu projekata organiziraju se terminološke radionice koje omogućuju neposredan dodir između terminologa koji rade na jezičnoj obradbi nazivlja i stručnjaka pojedinih područja (stomatologa, anatoma, fiziologa i ostalih) te pružaju priliku za raspravu o terminološkim problemima. Svi nazivi koji se prikupe tijekom provedbe projekta unose se i obrađuju u elektroničkoj bazi e-Struna, gdje se dodatno klasificiraju na preporučene, dopuštene i nepreporučene nazive te na arhaizme ili žargonizme. Osim toga baza sadrži i definicije više od 5000 naziva s područja anatomije, fiziologije i stomatologije te može poslužiti i kao višjezični biomedicinski rječnik jer su svi nazivi prevedeni na engleski, a velik dio njih i na latinski, njemački i talijanski jezik. Osobita je vrijednost takva načina rada to što nazive unose i definiraju sami stručnjaci iz područja čije se nazivlje definira, koji mogu najbolje opisati pojmove na koje se nazivi odnose i smjestiti ih u širi kontekst njihove struke. Terminološku i jezičnu doradu naziva, no ponajviše obradbu definicija, provode jezični stručnjaci – terminolozi – u suradnji s voditeljima projekata i samim autorima naziva i definicija. Takva se suradnja pokazala učinkovitom i pouzdanom zato što povezuje stručno i jezično znanje, čime se stvara preduvjet dobra i precizna opisa nazivlja određene struke.

Biomedicinsko nazivlje iz kuta jezikoslovaca

Projekt Hrvatsko stomatološko nazivlje – HRSTON službeno je završen 2010. godine, dok je projekt Hrvatsko anatomsko i fiziološko nazivlje – HRANAFINA još uvijek u tijeku. Stomatološko nazivlje sadrži više od 7000 naziva, od čega je oko

4500 naziva dobilo oznaku preporučenoga naziva, dok su ostali nazivi klasificirani kao dopušteni, nepreporučeni, žargonizmi ili arhaizmi. Analizom obrađenih naziva terminolozi su utvrdili da se među hrvatskim biomedicinskim nazivima mogu pronaći brojni nazivi latinskoga, grčkoga, engleskoga i njemačkoga podrijetla koje je u pojedinim slučajevima bilo potrebno prilagoditi normi standardnoga hrvatskog jezika (*magnetska rezonancija, akrocefalija, cefalogram* i dr.). Osim toga uočeno je da se u stručnoj komunikaciji koristi veći broj pridjeva no što ih obično nalazimo u drugim znanstvenim ili stručnim područjima te da za mnoge nazive postoji u uporabi i priličan broj istoznačnica, što može biti uzrokom nerazumijevanja u komunikaciji, posebice u odnosu između liječnika odnosno stomatologa i pacijenta. Od velike je važnosti bilo zabilježiti sve istoznačnice koje se za određene pojmove upotrebljavaju zato što se time korisnika može s nepreporučenoga naziva uputiti na jezično prikladniji, preporučeni naziv, ili prikazati da se neki nazivi upotrebljavaju u manje stručnom diskursu ili u svakodnevnom govoru.² Problematičnima su se pokazali i nazivi koji se pišu spojeno ili rastavljeno (npr. *blok-anestezija, gama-zrake, jezično-ždrijelni mišić, dentalnomedicinski*). Isto tako u prilagodbi naziva normama brojni su bili primjeri naziva u kojima je posvojni genitiv trebalo zamijeniti posvojnim pridjevom, npr. *hrbat jezika* → *jezični hrbat, površina zuba* → *zubna površina* (9).

Zaključak

U sklopu projekata Hrvatsko stomatološko nazivlje – HRSTON i Hrvatsko anatomske i fiziološke nazivlje – HRANAFINA u suradnji s Institutom za hrvatski jezik i jezikoslovlje do sada je obrađeno nekoliko tisuća naziva, od kojih su brojni nazivi stranoga podrijetla. Usklađivanje njihovih hrvatskih istovrijednica s normama hrvatskoga standardnog jezika stoga je bilo velik izazov za terminologe koji su sudjelovali u projektima. Rezultati projekta HRSTON pokazali su da dobro pripremljeni, multidisciplinarni i ciljani projekti mogu unaprijediti strukovni jezik, spriječiti pretjeran ulazak novih tuđica u hrvatski jezik te profesionalno prevođenje učiniti znatno jednostavnijim i pouzdanijim procesom. Sve to podiže kompetitivnost hrvatskih znanstvenika na međunarodnoj razini i doprinosi mogućnosti uključivanja hrvatskih znanstvenika, liječnika i stomatologa u europske projekte.

² Npr. dopušteni naziv *usni* i nepreporučeni *ustni* za preporučeni naziv *oralni*, dopušteni naziv *anteriorni potporanj* i nepreporučeni naziv *anteriorni jig* upućuju na preporučeni naziv *prednji potporanj*. Uz naziv *mliječni zubi* zabilježen je i arhaizam, tj. naziv koji se više upotrebljava, *mlječnjaci*, dok su *muskulatura* i *mandibularna* nazivi koji se kao žargonizmi upotrebljavaju za preporučene nazive *mišićni sustav* odnosno *mandibularna anestezija* (9).

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Marin Vodanović, Ana Ostroški Anić

Croatian biomedical terminology – challenges for the linguists

ABSTRACT

The Institute of Croatian Language and Linguistics started in 2008 the project "Croatian Special Field Terminology", financed by the Croatian Science Foundation. Within this coordination project several subprojects were initiated. Croatian Dental Terminology (2009 – 2010) and Croatian Anatomical and Physiological Terminology (2012 -) are projects of the School of Dental Medicine - Zagreb. These projects have a two-pronged aim: the building of Croatian biomedical terminology and the popularization of its usage among physicians, dentists, related scientists and students of medicine and dentistry.

The project results showed that well prepared, multidisciplinary oriented and targeted terminology projects can improve the subject field language, diminish the use of inappropriate translations in the standard language, and make the specialised translation process significantly easier and more accurate. This increases competitiveness of Croatian scientists on international level and facilitates the involvement of Croatian scientists, physicians and dentists in European projects.

Key words: Croatian language; terminology; language for specific purposes; dental medicine; biomedicine

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GODIŠNJAK
Katedre za društvene
i humanističke znanosti u medicini
Medicinskog fakulteta Sveučilišta u Rijeci

M.P. Margaeva, A.V. Smirnova, E.E. Grishina

Teaching the language of medicine

Language as we know is a system of symbols (graphics, sound) that exists in the human society. The language of Medicine is a kind of literary language serving professional fields and the subject of a special study of the medical students focused on the acquisition of language as a means of professional communication.

By an old tradition the language of medicine represents the combination of Latin and English terms being the means of international communication and the basis of studying medical disciplines. The education of qualified medical professionals presupposes teaching fundamental elements as well as modern medical terminology and vocabulary.

At Medical College 4, Moscow, students study English and Latin starting from the first year up to the final fourth year of their education.

The course of education meets not only informative, but communicational needs of the medical students, promoting the formation of communicative and sociocultural competence. Communicative competence serves for the purpose of improvement of professional competence and broadens the framework of students' professional behavior.

Academic disciplines, English and Latin, belong to the general humanities and socio-economic cycle of the basic professional education program. The working programs of the disciplines are parts of basic professional educational programs in accordance with FGOS (Federal Government Educational Standard) for each specialty.

The vast scope of medical and paramedical terms makes up modern medical terminology. Each term is an element of subsystems, such as anatomical, histological and embryological, medical, surgical, gynecological, endocrinological, forensic, trauma, mental health, genetic, botanical, biochemical, etc. Terms interact and correlate with each other in course of medical education and professional practice. The study of Latin at Medical College is pursuing a professional goal - to prepare terminology competent medical personnel. Students learn vocabulary, phonetics and recognize Latin morphemes used in the medical language what helps them to develop deeper knowledge of the subject of medicine. Selected Latin aphorisms, sayings and medical deontological commandments apply to matters of life and death, health and doctor's behavior. Reading and translating Latin and English texts fosters language skills and forms professional speech patterns in future nurses, obstetricians and medical assistants.

At the initial stage of English, students learn the language of everyday communication, which does not provide acquisition of the language used in the special areas of communication. Students learn basic communication patterns and main rules of international and home speech etiquette what helps them to improve their own communication skills and follow the established norms of communication. Basic speech skills are important in case of professional communication. In medical practice it is vital to be able to speak with patients and engage them in communication. Sometimes a little chat with a patient helps more than a pill. Medical students study various basic topics including: Description of the character and personality, Healthy lifestyle, Social life and media, Climate and environment problems and their influence on people, Educational and Culture topics, Scientific and political issues.

Having acquired basic language skills students begin to learn professionally oriented English. Professional learning content of foreign language is achieved by forming a system of professionally relevant knowledge. Students learn advanced medical vocabulary and read authentic scientific articles. In the process of professionalization of foreign language the integration of medical disciplines deepens students' medical knowledge and prompts scientific research. Merging of professional and language knowledge systems, as well as their associated professional and linguistic skills enables students to enhance their professional abilities in practical training or in the hospital.

At Medical College 4, methodical complex and teaching materials are developed consistent with the Federal Educational standards for Postsecondary Education Institutions in the field of medical education. Specialized syllabus and academic programs are designed to help students in the formation of the knowledge and skills for effective consolidation of professional habits at the level of international standards

with the employment of modern teaching aids. The latest requirements for educational standard include use of computer and interactive equipment. Students always have computer equipment, multimedia systems and interactive whiteboards at their disposal.

Students take part in joint researches and scientific conferences devoted to the language of medicine. Best students participate in specialized competitions between educational institutions where they can show their skills in extreme situations.

It is important to teach students not only to know medical terminology but also to comprehend it. The proper use of the language may also facilitate the adaptation of foreign health professionals to a new social or working environment. Students of our college pay close attention to the language of communication with their colleagues and patients. The study of medical terminology may become one of the mechanisms to overcome problems occurring in the course of professional communication.

PRIKAZ SIMPOZIJA AKTUALNI TRENUTAK HRVATSKOG ZDRAVSTVA III / MEDICINA, DRUŠTVO, ČOVJEK: Živost kritike Ivana Illich (1926. – 2002.) deset godina nakon njegove smrti

6. je prosinca 2012. u Rijeci održan simpozij: *Aktualni trenutak hrvatskog zdravstva III*, pod nazivom: *Medicina, društvo, čovjek: Živost kritike Ivana Illich (1926.-2002.) deset godina nakon njegove smrti*. Simpozij je održan na Medicinskom fakultetu, u organizaciji Hrvatskog bioetičkog društva – Podružnice u Rijeci i Katedre za društvene i humanističke znanosti u medicini.

Ovaj je simpozij bio vezan uz jubilej desetogodišnjice smrti Ivana Illich (2. 12. 2002.). On je: »jedna je od onih osoba koje je teško, gotovo nemoguće jednoznačno odrediti. Breme te (*ne*)određenosti njegove ličnosti prisutno je na različitim razinama: u njegovom porijeklu..., obrazovanju..., djelovanju..., ili različitostima njegovog interesa (obrazovanje i školstvo, tehnologija, zdravlje i zdravstveni sustav, patnja i smrt, okoliš, energija, rod, institucije, itd.).«, kako je, na otvorenju skupa, istaknula predsjednica Organizacijskog odbora simpozija, Iva Rinčić.

Aktualnost odabrane teme skupa možda najbolje potvrđuje činjenica da se paralelno s riječkim simpozijem i drugdje organiziraju skupovi posvećeni Ivanu Illichu (primjerice, u Bremenu i Parizu).

Cilj je i pozicija organizatora bila usmjerena kompleksnijem pristupu. Tako je Iva Rinčić istaknula da se, obrušavajući na trendove u različitim segmentima suvremenog društva (ukalupljenost i trivijalnost obrazovanja, udaljavanje medicine od čovjeka, a potom i pretvaranje zdravlja u robu, odbacivanje prirodnosti intrinzične patnje i smrti, uništavanje okoliša, dominacija institucija, funkcioniranje energetskog sustava i transporta i dr.), Illich utemeljeno, opravdano i argumentirano upozoravao na opasnosti koje nas postupno zarobljavaju i mijenjanju našu suštinu.

Skup je započeo promocijom recentnih izdanja Katedre za društvene i humanističke znanosti u medicini, Medicinskog fakulteta u Rijeci, predstavljanjem knjige: *Komunikacija liječnik – pacijent: Uvod u medicinu usmjerenu osobi*, autora Mirka Štifanića, koju su predstavili i dali svoje viđenje Gordana Pelčić, Igor Salopek, Martina

Šendula-Pavelić i na kraju i sam autor. Nakon toga je organizatorica skupa Iva Rinčić otvorila radni dio skupa pozdravnim riječima kojima je istaknula važnost ovog susreta i cilj organizatora skupa, te je izrazila zadovoljstvo odazivom i ponuđenim radovima.

Radni je dio Simpozija otvoren izlaganjem Živke Juričić (Farmaceutsko-biokemijski fakultet u Zagrebu), koja je na izvrstan način uvela tematiku sveopće medikalizacije i farmaceutikalizacije društva na koju se obrušavao i tako često isticao i sam Illich. Autorica je istaknula kako je taj koncept medikalizacije ušao u literaturu društvenih znanosti još 70-tih godina dvadesetog stoljeća, te je zaključila da on postaje sve veći u posljednje vrijeme. Tako je istaknuto da se težište pomjera sve više prema istraživanju farmaceutskih aspekata medikalizacije, koju autorica naziva novim konceptom i pojmom farmaceutikalizacija. Istaknuto je kako je sam Illich, uz pomoć pojma jatrogeneza, ne samo naznačio, nego i pripremio konceptualni aparat u razumijevanju farmaceutikalizacije, koja je za autoricu jedan od neminovnim modaliteta ili stupnjeva medikalizacije.

Šime Pilić i Doris Žuro (Filozofski fakultet u Splitu) u svom su se zajedničkom izlaganju usredotočili i dali nam prikaz dvaju najpoznatijih knjiga Ivana Illicha: *De-schooling Society* (1971.) i *Medical Nemesis* (1975.), te je Doris Žuro, iznijela rezultate terensko – empirijskog istraživanja, provedenog u rujnu i listopadu 2012. U Splitu, u kome su jasno vidljivi dominantni stavovi ispitanika o zdravlju, bolesti i lijekovima. Većina je ispitanika smatrala da zdravlje znači odsustvo bolesti (61, 4 %) dok je manji postotak suglasan s tvrdnjom da je nesposobnost za rad znak bolesti (48, 4 %). Samo je 10 ispitanika tvrdilo da lijekovi pomažu kvaliteti života ljudi, a osam od deset zauzelo je stav da lijekovi produžuju život. Oko ovog se izlaganja povela žustra i zanimljiva rasprava i bilo je interesantno slušati tumačenja statističkih podataka i uspoređivanja po regijama i u kontekstu sveopće medikalizacije društva.

Darija Rupčić (Filozofski fakultetu u Osijeku) i Ivica Kelam (Filozofski fakultet u Zagrebu) zajednički su se osvrnuli na znanstveno zasnovan biomedicinski model, na koji se tako često i sam Illich obrušavao u svojim djelima, ističući važnost jedne nove paradigme i jednog novog poimanja bolesti kao biokulturne pojave. Bolest je uvjetovana osjetljivom ravnotežom između bolesti i kulture, a upravo je ta i takva ravnoteža ono što konstituira neuhvatljivu istinu bolesti i postmodernu shvaćanje bolesti, te je istaknuta važnost moći samo-izliječenja, razumijevanja i sebe samih, kako je često isticao Ivan Illich.

Mirko Štifanić (Medicinski fakultet u Rijeci) je pročitao pismo Ivana Illicha hrvatskim liječnicima i pacijentima, te je istaknuo da iako imamo vrhunski obrazovane liječnike, zbog kojih zdravstvo u brojnim segmentima dobro funkcionira, kao sustav

socijalne države je u sve dubljoj krizi. Naglašeno je kako se sve više zanemaruje segment socijalne države ili države socijalnog blagostanja. Pomoću pisma Ivana Illicha, autor pokušava u radu odgovoriti na sva važna pitanja suvremenih stremljenja i gibanja na polju zdravstvene i socijalne skrbi.

U drugoj je sekciji Iva Rinčić (Medicinski fakultet u Rijeci) započela uvodnim i nadalje zanimljivim i inspirativnim biografskim prikazom i (de)konstrukcijom obiteljske povijesti samog Ivana Illicha, potaknuvši mnoga pitanja i raspravo o tome što je sve utjecalo i je li možda turbulentna prošlost, porijeklo i rana iskustva utjecala na tako pomalo disidentske i radikalne misli Illicha? Uočeno je kako bi svi ti podatci u konačnici mogli poslužiti za povlačenje paralela s njegovim kasnijim idejama i stvaralaštvom.

Mijo Korade (Hrvatski studij u Zagrebu) se pozabavio tematikom i pitanjem mira u djelima i idejama Ivana Illicha, te je istaknuto kako je ova tematika itekako aktualna i važan je dio njegove sveukupne kritike kapitalističkog društva i uklapa se i njegov koncept promjene društvenih i političkih odnosa. Illich zamišlja mir kao „mir naroda“ ili „obični mir“, a glavna mu je teza da se pod izgovorom razvoja i napretka vodi svjetski rat protiv siromašnih, protiv narodnog mira. Tako autor analizira Illicheve povijesne refleksije o ključnim pojmovima kao što su *pax romana*, *tregua Dio*, *pax populi*, *pax oeconomica* i sl.

Frano Barbir (Fakultet elektrotehnike, strojarstva i brodogradnje u Splitu) imao je zanimljivu prezentaciju na temu optimalnog korištenja energije sa socijalnog aspekta, osvrnuvši se na Illichev esej *Energy and equity* (*Energija i pravednost*). Tako je autor istaknuo Illichev primjer prometa i njegove lucidne ideje kojima dolazi do paradoksa vremena i brzine (automobil nije uvijek najbolje rješenje niti najbrže, bicikli je brži od auta) i zanimljivih zaključaka do kojih se može doći samo iscrpnom i sveobuhvatnom analizom kompleksnih sustava. Tako autor zaključuje i Illichevim riječima i spoznajama kako su potrebna društvena ograničenja u potrošnji energije, te u brzini i količini kretanja kako bi se postigla pravičnija raspodjela energije i svih resursa.

Treća je sekcija, ujedno i zadnja, započela zajedničkim izlaganjem Marka Mušanovića i Sofije Vrcelj (Filozofski fakultet u Rijeci) o suvremenosti teorije obrazovanja Ivana Illicha. Tako su autori razmatrali doprinos Illicha razvoju kritičke pedagogije. Polazeći od Kantove teze *sapere aude* Illich kritički razmatra školski sustav otkrivajući inverzije u zadovoljavanju obrazovnih potreba učenika. Za razliku od škola u kojima je nastava socijalno kontrolirano učenje, Illich se zalaže za demonopolizaciju škola (*deschooling society*), odnosno druge obrazovne aktivnosti koje učenike neće ukalupljivati i uramljivati u razrede, programe, klupe i druge društveno prihvatljive okvire.

Ivana Zagorac (Filozofski fakultet u Zagrebu) istaknula je zanimljivom igrom riječi Illichev odnos prema znanju i institucijama koje su preuzele cijela područja ljudskog života te deprivirale čovjeka u njegovoj moći preuzimanja kontrole nad vlastitim životom, te posebno na području dominantnog sustava institucionalnog obrazovanja. Tako je autorica istaknula tzv. *bigijensko znanje*, koje se čisti, dezinficira, dodajući mu mirise koji nemaju veze sa stvarnim životom i uredno ih slažući na hrpe, što za Illicha predstavlja siguran put u društvo socijalno oslabljenih pojedinaca, ovisnih o vodstvu institucija, sklonih diskriminiranju, konzumerizmu i gotovim proizvodima.

Petar Jandrić (Tehničko veleučilište u Zagrebu) se pozabavio *Digitaliziranim Illichem*, te je govorio o suživotu informacijskih i komunikacijskih tehnologija u kritičkom e-obrazovanju. Tako je dao odgovor da je rad istraživao koncept suživota u kontekstu obrazovanja u umreženom društvu. Rad odbija distopijske slike tehnologija karakterističnih za rane kritike potekle iz Frankfurtske škole i pokazuje da edukatori imaju potencijal za ostvarenje potencijala suživota u suvremenim tehnologijama e-obrazovanja. Tako autor zaključuje da kritičko obrazovanje, za koje se i sam Illich zalagao, treba prigriliti izučavanje informacijski i komunikacijskih tehnologija kao integralni dio obrazovnih istraživanja.

Simpozij je izvrsno završio i dao zaključnu riječ u svome izlaganju, Hrvoje Jurić (Filozofski fakultet u Zagrebu), koji se u svome radu osvrnuo na aktualnost misli Ivana Illicha i na problem i pitanje slobode, moći i odgovornosti. Tako središnju ulogu pri tome ima pojam moći, jer je Illich kroz čitav svoj rad i djelovanje upravo radio na raskrinkavanju one moći i onog sustava moći koji upravljaju modernim svijetom ili, preciznije govoreći, životima pojedinaca i zajednica, ali je isticao i osobnu moć svakog pojedinca. Autor ističe da upravo iz toga proizlazi jedan sasvim osobit zagovor slobode, s jedne strane, a s druge strane, sasvim osobita kritika pojma odgovornosti. Stoga, kako kaže autor, ne čudi da su radikalno-kritičke i slobodarske ideje Ivana Illicha bile i ostale referentnom točkom i inspiracijom mnogim emancipatorski nastrojenim mislećim ljudima.

Ovim je izlaganjem i inspirativnom raspravom, u ugodnom tonu završen i Simpozij i svi su sudionici istaknuli potrebu i važnost ovakvog skupa, koji je poslužio kao daljnji poticaj za još jedan možebitni skup na temu Ivana Illicha i njegova opusa, jer je zaključeno kako jedan ovakav skup nije dovoljan kako bi iscrpio preveliko bogatstvo i važnost kojim su misli Ivana Illicha bremenite.

Ivica Kelam i Darija Rupčić

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