
ӘДЕБИЕТТАНУ ЖӘНЕ ТІЛ БІЛІМІНІҢ ӨЗЕКТІ МӘСЕЛЕЛЕРІ
АКТУАЛЬНЫЕ ПРОБЛЕМЫ ЯЗЫКОЗНАНИЯ И
ЛИТЕРАТУРОВЕДЕНИЯ
TOPICAL ISSUES OF LINGUISTICS AND LITERARY STUDIES

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History of the origin of medical terminology

The article claims at highlighting the emergence and development of medical terminology at various stages. We also intend to emphasize the importance of the study and analysis of scientific works of foreign and Russian scholars specialized in medical terminology formation. The most important sources of enriching terms, a bulk of borrowings that relate to international lexical stock, productive ways of terms formation, lexicographic analysis, certain results in the practical aspect - the compilation of medical terminological dictionaries, have been considered. The authors also highlighted new directions in the study of modern medical terminology on various linguistic aspects. It is revealed that modern medical terminology possesses the richest lexical foundation, it runs through continuous process and constant development, studies in the field of terminology in the traditional system, and also in the context of the anthropocentric scientific paradigm.

Keywords: history of science, medical terminology, terminological phraseological units, historiography, scientific vocabulary.

The historical background of medical terminology explains the importance for each branch of science. It covers the complex of all the most important scientific concepts and categories. The medical terminology plays a crucial role in modern linguistics as well, since new achievements and accelerating progress in medical science the terms have been enlarging intensively. As M. Chernyavsky states «centuries-old development of world-wide and Russian treatment, medical science is resulted in modern medical terminology of Russian language. It accumulates the efforts of numerous physicians and scientists from different countries in the knowledge of human nature, the body structure and functions, the causes of disease and the development new treatment methods. Perhaps the only trade where international experience has been directly reflected in the development and structure of specialized terminology is medicine. It may serve as a great example of the continuity of scientific knowledge, moreover where ingenious insights and permanent errors are being recorded» [1; 498].

The spread of technology and medical terminology may pose problems in translating specialized terms. The doctrine of terminology as one of the largest branches of linguistic science requires careful study and further scientific development.

The historical and linguistic interpretation of medical terms gives us an idea of how the terminology of current medical science has been formed in the process of scientific knowledge development. The development of medical terminology is a long, complex, and generally continuous, since the science of the physical, moral human state has been relevant till contemporary days.

It is known from the history of science that the evolution of medical terminology development dates back to antiquity. They first appeared in the writings of ancient Greece and Rome. In the ancient time medical language had a sufficiently developed system for designating various concepts. The Hippocratic docu-

ments from the fifth and the fourth centuries BC represent the oldest written materials of Western medicine and, therefore, are seen as underlying the medical language from the Greek era. Thus, this period, when the Greek medicine «departed from the divine and moved towards logical reasoning» was extremely important in the evolution of medical language. An especially important place in the history of medical terminology is occupied by Ancient Greece, which played a huge role in its formation and left an indelible mark on science. The numerous terms, which Hippocrates used in his writings, later were added to the international medical dictionary. In modern medicine, there are widely used terms associated with his name, such as: Hippocratic bench, Hippocratic succussion, Hippocratic face, Hippocratic cap-shaped bandage, and others.

Another significant stage of the medical language formation is represented by the Alexandria Medical School, who made a huge contribution and had a huge impact on scientific progress (Herofil, Erasistratus, Aulus Cornelius Celsus, Claudius Galen, etc.). At that period, the works of Avla Cornelia Celsa, an ancient Roman scientist, encyclopaedist, founder of the scientific medical terminology of «De Medicina», where the author considered questions on hygiene, dietetics, pathology, therapy and surgery, became widespread.

By the nineteenth century, the increasing necessity to communicate outside the academic environment triggered the replacement of Latin in the medical field by local languages. However, it is noteworthy that these languages kept the Greek-Latin terminological core, which in Berghammer's perspective is almost like a precise and universal artificial language, as both ancient Greek and Latin are dead languages and, thus, it no longer changes. These statements reveal the importance of learning the meanings of the most recurrent Greek or Latin roots and affixes. A wide penetration of Greek terms into the Latin language is quite understandable and in many respects justified. The main reason for this phenomenon is the interaction of two classical languages - Latin and Greek, which in the process of historical development, in contact with each other, have a beneficial mutual influence. In this regard the bilingual process played its huge role. Bilingualism has become a natural and traditional way of developing medical terminology since ancient times and it has been sustainable for many centuries and still relevant. For example, anatomy uses a special vocabulary of Latin origin, while clinical medicine of Greek origin: Latin, vertebra = Greek. spondyl; Latin, cerebrum = Greek, encephal brain, etc. There are plenty of Greek words, which are derived into Latin language and are quite widely used so far in medical science these days.

The scientific terminology is primarily expanded and enriched due to historical processes, which are directly affect language development, through the prism of national-cultural interaction and mutual influence of languages. As M. Chernyavsky states, «medical and biological terminology is dominant in number if to compare with the terminology in other fields. This is explained by the all-encompassing sustained influence that has had medical and biological terminology for centuries and still developing with the help of the two classical languages of the ancient world - Ancient Greek and Latin» [1; 499].

In the era of the Middle Ages, theoretical provisions of Abu 'Ali al-Husayn ibn Sina is better known in Europe by the Latinized name «Avicenna». He is probably the most significant philosopher in the Islamic tradition and arguably the most influential philosopher. As a physician whose major work the *Canon (al-Qanun fi'l-Tibb)* continued to be taught as a medical textbook in Europe and in the Islamic world until the early modern period. The work was translated into Latin.

The fourth stage of medical language formation is the Renaissance, when the international medical terminology was based on Latin terms (A. Vesalius, Eustachius, V. Harvey, and others.). The founder of the human anatomy is the Italian scientist A. Vesalius, whose work «On the structure of the human body» made a great contribution to the development and improvement of Latin anatomical terminology.

The fifth stage is connected with the systematization of Russian scientific medical terminology. In Russia, the period of the medical language formation refers to the XVIII - XIX centuries. Many Russian books on medicine contained reliable medical information for that time and had great cognitive value (M. Lomonosov, A. Shumlyansky, M. Mudrov, N. Pirogov and etc.). In their writings, scientists laid the foundation for scientific study of the most important problems of medical terminology.

The most significant achievements in the field of Russian medical science are the dictionaries of medical terms that represent the first experience in the creation of lexicographic sources (N. Ambodik-Maksimovich «Anatomic-physiological dictionary», «Medical-pathology-surgery dictionary», A. Nikitin «Medical dictionary»). The dictionaries are of great value thanks to new data, and innovation in medical lexicography.

The modern stage of the terminological system is fully reflected in a number of valuable scientific works from the linguistic aspects of medical terminology (G. Arnaudov, Yu. Shultz, M. Chernyavsky, Yu. Gorodkova, B. Petrovsky and others.). Among scientific achievements in the field of terminology, can

be mentioned, the dictionary by G. Arnaudova «Medical terminology», which contains medical vocabulary in Latin, translations of terms into Russian, English, French and German. It is important to note that the author has done a great deal of work on the semantic, etymological, grammatical characteristics of the terms in her work.

Further development of terminology is related to the educational and methodological direction, textbooks on the Latin language are published (G. Arnaudov, Yu. Shultz «Latin Language and the Basics of Terminology», M. Chernyavsky «Latin Language and the Basics of Medical Terminology», Yu. Gorodkova «Latin language»). It is one of the prominent works that is valuable from theoretical and practical aspects of the study of Latin terminology. The status of Latin as the language of medicine is in its medical terminology, and this fact in many ways determines its scientific and methodological significance as well.

The indisputable advantage of solid lexicographic publications in modern medical science is the «Encyclopedic Dictionary of Medical Terms» in three volumes (1982-1984), edited by B. Petrovsky. The dictionary is a unique phenomenon in the Russian lexicography, where for the first time modern medical terms have been collected and systematized. The dictionary contains more than 60 000 terms and contains the most accurate and concise scientific definitions of as medical vocabulary as specialized terms from various related fields of science (biochemistry, biophysics, genetics, etc.). It should be noted that the dictionary contains an application in which the work of M. Chernyavsky «A short essay on the history and problems of systemizing medical terminology» is presented. «Dictionary of Greek-Latin terminology» gives a list of anatomical terms, abbreviations, and the international system of units. The medical terminology is a fairly developed system that can be proved from the dictionary by B. Petrovsky.

Generalizing scientific work, which contains important information on the history of medical terminology and the linguistic analysis of modern terminology, in our view, is «A short essay on the history and problems of systemizing medical terminology» by M. Chernyavsky. The scholar defined the chronological framework of the most important historical changes in the medical terminology system. The author has classified the modern Russian terminology by its origin into 4 groups: 1) native Russian names; 2) borrowed classicisms, assimilated to varying degrees, adapted to the sound and morphological system of the Russian literary language; the overwhelming majority of them actually performs the function of international words, i.e. terms that have received inter-lingual distribution in at least three languages from different language groups (for example, in Latin, French, English, German, Russian, etc.); 3) primordial Western Europeanisms, which in fact fulfill the function of international words; 4) Latin [1; 498]. It is important to note that she developed a number of linguistic issues that affect the structural and semantic features of terminological elements of Greek-Latin origin.

Modern medical terminology is considered by linguists in various aspects. On the problems of medical terminology, many interesting and profound linguistic studies have been published. Among them, first of all, should be mentioned, the works where the most relevant issues of various terminological phenomena are described sufficiently. Comparing and analyzing various scientific studies devoted to medical terminology, we can distinguish four main problems.

Representatives of the first direction (E. Zagrekova «Origins and development of Russian medical terminology (on the Greek-Latin basis)», S. Madzhayeva «Medical terminology: formation, development, functioning», E. Bekisheva «New directions in medical terminology study», N. Maslova «Terminology as a basis for the classification of medical terms», etc.) consider the historical aspect of the medical terminology and lexicography, and provide a variety of factual material.

Representatives of the second direction (E. Smirnova «Structural-semantic and lexicographic aspects of medical terminology (on the example of cardiological vocabulary)», A. Sharapa «Medical terminology: word formation, study and communication», L. Knyazkina «System-forming agents in the Russian anatomical terminology (word-forming aspect)», E. Lapteva «Structural-semantic analysis of phraseological units in medical terminology», etc.) devoted their scientific research to the analysis of the classification of language peculiarities in medical terminology: structural-semantic, word-forming aspect.

Representatives of the third direction (O. Zubkova «Medical metaphor-term in professional discourse», M. Ozingin «The role of metaphor in the structuring and functioning of Russian medical terminology», A. Sharapa «Metaphorization as a kind of education of medical terms» and etc.) considerable attention is paid to the metaphorical way of forming medical terminology. The problems of metaphorization raised in scientific research are of great linguistic value and also relevant for modern medicine.

Medical terminology is a special linguistic aspect, consisting of various terminological subsystems. The medical subsystems can be divided into three main subsystems that include the core vocabulary of the medical language:

- 1) anatomical nomenclature;
- 2) clinical terminology;
- 3) pharmaceutical terminology.

At present, a single International anatomical nomenclature, the International Pharmacopoeia, dictionaries of medical terms have been drafted and adopted.

Terminology is the constructive material of scientific vocabulary. Terms in medical language are characterized by unambiguous order, they render outlined scientific concepts. Terminological phraseological units actively enrich the vocabulary of the modern Russian language. In Russian, there are two ways of terms-formation. First, new terminological phraseological units are created by forming on the basis of derivative words already existing in the language, according to the word-formation patterns historically formed in it, with the help of certain suffixes, prefixes and other means. Secondly, terminological phraseological units appear by borrowing from other languages, mostly Western European, and this is quite natural, since Russian is inseparable from the modern world community, fail to fence off other linguistic systems, but, on the contrary, traditionally accepts into its composition diverse foreign language lexical elements. At the same time, the predominant part of the lexicon, containing borrowed roots, belongs to the international lexical fund, which is constantly enriched due to the development of world science. It can be argued that the international roots, prefixes, affixes, affixoids (by origin, mostly Greek-Latin), For example, the prefixes: -a, -an, -dys, -endo, -hyper, -hypo, -peri, -para, -epi, -extra, etc., roots: -nehr, spondyl, encephal, dermat, etc. suffixes: -itis, -oma, etc. It should be stated that the layer of terminological 'cripples' from Latin, assimilated in a new language, were later used in stable terminological combinations. For the terminological system, the influence of foreign words was favorable: the medical terminology included a large number of foreign words. This is one of the productive ways of replenishing vocabulary with new words.

The analyzed theoretical material and our own observations make it possible to determine that modern terminological phraseology possesses a rich lexical foundation, fixed grammatical structure. In modern linguistic science, medical terminology continues to be studied in the traditional system, as well as in the context of the anthropocentric scientific paradigm.

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Медициналық терминологияны әзірлеудің тарихнамалық қыры

Мақалада медициналық терминологиялық фразеологияның дамуының әртүрлі кезеңдері, пайда болуы мен даму тарихы қарастырылды. Медициналық терминологияны қалыптастыруды зерттейтін шетелдік және ресейлік ғалымдардың ғылыми іргелі жұмыстарын зерттеуге және талдауға ерекше көңіл бөлінді. Медициналық терминологиялық сөздіктерді қалыптастыруда терминологияны толықтырудың маңызды көздері, халықаралық лексикалық қорға жататын ғылыми лексиканы тартудың белсенді үрдістері, термин жасаудың тиімді жолдары, лексикографиялық талдау жүргізілді, белгілі бір нәтижелер практикалық тұрғыда қаралды. Әртүрлі лингвистикалық аспектілер бойынша заманауи медициналық терминологияны зерттеудің жаңа бағыттары айқындалды. Қазіргі заманғы медициналық терминологияның лексикалық қоры мол, үздіксіз үдерісте және тұрақты дамуда екені, дәстүрлі жүйеде терминология саласындағы, сондай-ақ антропоцентрлік ғылыми парадигма тұрғысындағы зерттеулер жалғасып жатқандығы анықталды.

Кілт сөздер: ғылым тарихы, медициналық терминология, терминологиялық фразеологизмдер, тарихнама, ғылыми лексика.

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Историографический аспект медицинской терминологии

В статье рассмотрена история возникновения и становления медицинской терминологической фразеологии на различных этапах ее развития. Особое внимание уделено изучению и анализу научных фундаментальных трудов зарубежных и русских ученых, исследующих вопросы формирования медицинской терминологической системы. Проанализированы важнейшие источники пополнения терминологии, активные процессы заимствования научной лексики, относящиеся к интернациональному лексическому фонду, продуктивные способы терминообразования, проведен лексикографический анализ, рассмотрены определенные результаты в практическом аспекте – составлении медицинских терминологических словарей. Выделены новые актуальные направления в исследовании современной медицинской терминологии по различным лингвистическим аспектам. Выявлено, что современная медицинская терминология обладает богатейшим лексическим фондом, находится в непрерывном процессе и постоянном развитии, продолжают исследования в области терминологии в традиционной системе, а также в контексте антропоцентрической научной парадигмы.

Ключевые слова: история науки, медицинская терминология, терминологические фразеологизмы, историография, научная лексика.

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