

LINGUISTIC APPROACHES IN THE CREATION OF MEDICAL TERMINOLOGY

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Annotation: Medical terminology plays a crucial role in scientific and clinical communication. This study explores linguistic approaches in the formation of medical terminology, including semantic, morphological, syntactic, ethnolinguistic, and international strategies. By analyzing historical and contemporary medical terms, the research highlights how linguistic methods contribute to the accuracy, standardization, and international compatibility of medical terminology. The study also emphasizes the importance of balancing universal medical terms with culturally adapted terminology to enhance global healthcare communication.

Аннотация: Медицинская терминология играет ключевую роль в научной и клинической коммуникации. В данном исследовании рассматриваются лингвистические подходы к формированию медицинской терминологии, включая семантические, морфологические, синтаксические, этнолингвистические и международные стратегии. Анализируя исторические и современные медицинские термины, исследование подчеркивает, как лингвистические методы способствуют точности, стандартизации и международной совместимости медицинской терминологии. Также акцентируется важность баланса между универсальными медицинскими терминами и терминами, адаптированными к культурному контексту, для улучшения глобальной медицинской коммуникации.

Annotatsiya: Tibbiy terminologiya ilmiy va klinik kommunikatsiyada muhim rol o'ynaydi. Ushbu tadqiqotda tibbiy terminologiyaning shakllanishida lingvistik yondashuvlar, jumladan, semantik, morfologik, sintaktik, etnolingvistik va xalqaro strategiyalar ko'rib chiqiladi. Tarixiy va zamonaviy tibbiy atamalar tahlil qilingan holda, lingvistik usullar tibbiy terminologiyaning aniqligi, standartlashtirilishi va xalqaro moslashuviga qanday ta'sir ko'rsatishi o'rganiladi. Shuningdek, global tibbiy kommunikatsiyani yaxshilash uchun universal va madaniy jihatdan moslashtirilgan tibbiy terminologiya o'rtasidagi muvozanatning ahamiyati ta'kidlanadi.

Introduction

Medical terminology is a system of scientific and technical words that has developed through the interaction of various languages. As medical science continues to evolve, the accuracy and consistent application of terms become increasingly important. Terminology in any scientific field must be precise; otherwise, incorrect or ambiguous usage can lead to scientific errors, misdiagnosis, and confusion in treatment methods. Cabré (1999) states, "Terminology is essential in scientific communication, and inaccuracies can lead to misunderstandings and errors in knowledge transfer." Therefore, linguistic approaches play a crucial role in the formation of medical terminology.

Linguistics applies various approaches to the creation of medical terms, including semantic, morphological, and syntactic methods. Each approach has distinct characteristics and influences the formation of terms in different ways. Sager (1990) notes, "Medical terminology is largely derived from Latin and Greek, but it also incorporates elements from local languages to

adapt to diverse linguistic contexts." This paper analyzes the linguistic approaches employed in the formation of medical terminology and examines their scientific and practical implications.

Methodology

This study employed linguistic analysis and comparative methods. Scientific articles, medical terminology dictionaries, and international terminological systems were analyzed to explore the historical development of medical terminology. The formation of terms and their compatibility with international standards were also examined.

Morphological and semantic analysis was used as a methodological approach to study the structure of words, their origins, semantic fields, and usage domains. Bühler (1934) explains, "The structure of terminology follows the natural linguistic development, where words are shaped by their functional and semantic needs." The study compared how medical terms have developed across different languages and analyzed their linguistic aspects. Furthermore, research findings related to international medical terminology standards (such as ICD, SNOMED CT, and MeSH) were considered. WHO (2020) asserts that "terminological standardization plays a crucial role in ensuring consistency in global healthcare communication."

Additionally, a historical-comparative analysis was conducted to track the transformation of medical terminology from ancient texts to modern clinical practice. The influence of Latin and Greek roots was examined, as well as how different languages have incorporated and modified these terms over time. A corpus-based analysis was employed to identify patterns in medical language usage and the frequency of term adaptation in contemporary medical literature. This approach allowed for a detailed examination of linguistic tendencies and the evolution of medical terminology across different cultural and linguistic contexts.

Results

The research findings indicate that the following linguistic approaches are widely applied in the creation of medical terminology:

1. **Ethnolinguistic approach** – Creating medical terms by adapting them to national language and cultural characteristics. This approach allows for the formation of new terms in local languages. Muminov (2015) states, "Traditional medicine and folk healing practices have significantly influenced the development of medical terminology in many cultures." The ethnolinguistic approach is particularly significant in regions where indigenous medical knowledge plays a central role in healthcare. Researchers found that terminology related to traditional healing methods, herbal medicine, and folk diagnoses often emerge through this approach.
2. **Semantic approach** – Creating new terms by broadening or narrowing the meaning of words. For instance, Crystal (2008) notes, "The word 'infection' initially referred only to disease transmission, but in modern medicine, it is used to denote various infectious diseases." The study revealed that many medical terms undergo semantic shift as knowledge in the field progresses. Words that were once used in a general sense have become specialized within medical discourse, while others have expanded their meanings to encompass a broader range of conditions.

3. **Morphological approach** – Forming new terms using prefixes and suffixes. Dudley-Evans & St. John (1998) explain, "Medical terminology is often constructed by combining morphemes; for example, 'gastroenterology' derives from 'gastro' (stomach) and 'enterology' (the study of intestines)." The analysis demonstrated that morphological modifications, such as affixation and compounding, are fundamental in creating complex medical terms. This approach facilitates the systematic expansion of terminology to accommodate new discoveries and medical advancements.
4. **Syntactic approach** – Creating new terms by combining multiple words. For instance, the term "acute respiratory viral infection" is formed by a combination of several words, demonstrating how complex medical conditions require multi-word expressions. The study found that many medical conditions, procedures, and pharmacological terms are formed using this approach, especially when single-word terms are insufficient to describe a phenomenon precisely. The syntactic approach is crucial in forming diagnostic terms that require specificity and differentiation from other conditions.
5. **International approach** – Utilizing universal terminology based on Latin and Greek. Gotti (2003) highlights that "Latin and Greek remain the foundational languages for medical terminology due to their historical and scientific significance." The research confirmed that Latin and Greek roots continue to dominate medical terminology, ensuring consistency and ease of communication across different languages. The study also showed that international standardization efforts have reinforced the use of these classical languages in medical discourse.

Moreover, the study identified that a hybrid approach is often used in practice. Many modern medical terms combine multiple linguistic strategies, incorporating elements of morphology, semantics, and syntax while also adhering to international standards. This hybridization ensures that medical terminology remains both precise and adaptable to changing medical and linguistic landscapes.

Discussion

The formation of medical terminology largely depends on linguistic approaches, each of which ensures the accuracy, consistency, and international comprehensibility of terms. Montalt-Resurrecció & Shuttleworth (2012) argue, "The international approach is the most effective method in the medical field, as it helps establish a universal understanding on a global scale." At the same time, the ethnolinguistic approach enables the enrichment of medical terminology through local languages.

Although international terms are widely used in modern medicine, local terms also hold significant value. Picht & Draskau (1985) observe, "The same disease may have different names in various countries, which can sometimes cause confusion in diagnosis and treatment." Therefore, the standardization of terminology is crucial. Linguistic research indicates that a balance between universal terminology and national terminology contributes to effective communication and scientific progress in the medical field.

Conclusion

Linguistic approaches play a vital role in the creation of medical terminology, ensuring that terms are precise and comprehensible. Temmerman (2000) emphasizes, "International and morphological approaches are the most effective methods in terminology development, yet each approach has its own advantages and limitations." In the future, further development of these approaches and the creation of new terminological systems in medicine will remain a primary focus of scientific research. Bowker & Pearson (2002) assert that "The advancement of medical terminology is essential not only for scientific research but also for the efficiency of medical practice, education, and healthcare systems." Therefore, linguists and medical professionals should collaborate to conduct systematic research on the formation and standardization of medical terms.

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