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LEXICAL-SEMANTIC, STRUCTURAL-TYPOLOGICAL, AND LEXICOGRAPHIC FEATURES OF INFECTIOUS DISEASE TERMINOLOGY IN ENGLISH AND UZBEK

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Abstract: Medical terminology constitutes one of the most systematized layers of language, reflecting the development of scientific knowledge and international professional communication. The present study examines the lexical-semantic, structural-typological, and lexicographic features of infectious disease terminology in English and Uzbek languages. The research aims to identify the semantic structure of infectious disease terms, analyze their morphological formation, and examine their lexicographic representation in medical dictionaries. The study is based on comparative linguistic analysis of medical terms related to infectious diseases such as influenza, tuberculosis, malaria, hepatitis, and COVID-19. The findings reveal that most medical terms originate from Latin and Greek roots and demonstrate similar structural patterns across languages. At the same time, Uzbek terminology includes both international borrowings and native lexical units. The study also highlights the role of lexicographic standardization in ensuring consistency and accuracy in medical communication. The results contribute to terminology studies, medical linguistics, and cross-linguistic research on specialized vocabularies.

Keywords: medical terminology, infectious diseases, lexical semantics, structural typology, lexicography, English language, Uzbek language.

1. Introduction

Medical terminology plays a crucial role in the development of modern healthcare systems and scientific communication. The language of medicine is characterized by high precision, standardization, and internationalization. Medical terms serve as linguistic units that represent specific scientific concepts and facilitate effective communication among healthcare professionals.

The rapid development of medicine, particularly in the field of infectious diseases, has led to the continuous expansion of medical vocabulary. Infectious diseases such as influenza, tuberculosis, malaria, hepatitis, and more recently COVID-19 have become central topics of global medical research. Consequently, the terminology related to infectious diseases forms an important subsystem within medical vocabulary.

From a linguistic perspective, medical terminology can be studied through various approaches including lexical-semantic analysis, structural-typological analysis, and lexicographic description. Lexical-semantic analysis focuses on the meanings and semantic relationships between medical terms. Structural-typological analysis examines the morphological structure and formation patterns of terms. Lexicographic analysis investigates how terms are recorded, defined, and standardized in medical dictionaries.

English currently functions as the dominant language of international medical communication. Many medical terms used worldwide originate from English or are derived from Latin and Greek roots through English scientific discourse. At the same time, national languages, including Uzbek, adapt these terms and integrate them into their own linguistic systems.

In Uzbek medical terminology, many terms have been borrowed from international sources, especially Latin and Greek, often through Russian or English mediation. However, native lexical elements also play an important role in describing symptoms and medical conditions.

The purpose of this study is to analyze the lexical-semantic, structural-typological, and lexicographic features of infectious disease terminology in English and Uzbek. The research seeks to identify similarities and differences between the two terminological systems and to highlight the role of international medical vocabulary in shaping national terminology.

2. Methods

The present study employs several linguistic methods to analyze infectious disease terminology in English and Uzbek.

Comparative Linguistic Analysis

A comparative approach was used to examine similarities and differences between English and Uzbek medical terminology. Equivalent terms in both languages were analyzed to identify structural and semantic correspondences.

Lexical-Semantic Analysis

Lexical-semantic analysis was applied to classify medical terms into semantic groups. The analysis focused on identifying relationships between disease names, pathogen terminology, symptom vocabulary, and epidemiological concepts.

Structural-Typological Analysis

Structural-typological analysis was used to examine the morphological structure of medical terms. Particular attention was given to word-formation processes such as affixation, compounding, and borrowing from classical languages.

Lexicographic Analysis

Lexicographic analysis involved examining how infectious disease terms are defined and standardized in medical dictionaries. Several English and Uzbek medical dictionaries were used as reference sources.

The data for the research were collected from medical textbooks, scientific articles, and medical dictionaries. A sample of commonly used infectious disease terms including influenza, tuberculosis, malaria, hepatitis, virus, bacteria, epidemic, and quarantine was analyzed.

3. Results

The analysis revealed several important features of infectious disease terminology in English and Uzbek languages.

Lexical-Semantic Characteristics

Infectious disease terminology can be divided into several semantic groups:

1. **Names of diseases**

English	**Uzbek**
influenza	gripp
tuberculosis	sil
malaria	bezgak

English	Uzbek
hepatitis	gepatit
cholera	vabo

These terms represent the primary lexical units used to describe specific infectious diseases.

2. **Pathogen terminology**

English	Uzbek
virus	virus
bacteria	bakteriya
parasite	parazit
pathogen	patogen

These terms refer to biological agents that cause infectious diseases.

3. **Symptoms of diseases**

Examples include:

- fever – isitma
- cough – yo‘tal
- headache – bosh og‘rig‘i
- fatigue – charchoq

Unlike disease names, many symptom terms in Uzbek originate from native lexical sources.

Structural-Typological Features

Many medical terms in English are derived from Latin and Greek morphological elements.

Examples:

- **microbiology** (micro + bio + logy)
- **immunology** (immuno + logy)
- **pathology** (patho + logy)

In Uzbek, these terms appear in adapted forms:

- mikrobiologiya
- immunologiya
- patologiya

Thus, both languages demonstrate similar structural patterns in medical terminology.

Lexicographic Features

Medical dictionaries play an important role in standardizing terminology. Lexicographic descriptions provide precise definitions of medical terms and ensure consistency in scientific communication.

For example:

Virus – a microscopic infectious agent that replicates only inside living cells of an organism.

Uzbek medical dictionaries provide equivalent definitions while adapting the terminology to the Uzbek linguistic system.

The analysis shows that many infectious disease terms have stable lexicographic definitions across languages, reflecting the international nature of medical science.

4. Discussion

The results demonstrate that infectious disease terminology in English and Uzbek reflects the global nature of medical science. Most medical terms originate from classical Latin and Greek roots, which form the foundation of international medical vocabulary.

English medical terminology often preserves these classical forms, while Uzbek terminology adapts them to its phonological and morphological structure. This process results in terminological convergence between languages while maintaining linguistic diversity.

Another important observation concerns the coexistence of borrowed and native lexical units in Uzbek medical vocabulary. While international borrowings dominate scientific terminology, native Uzbek words are often used to describe symptoms and patient conditions.

The study also highlights the importance of lexicographic standardization. Medical dictionaries ensure that terms are used consistently and accurately in professional communication. Standardized terminology is particularly important in the context of global health challenges such as pandemics.

Furthermore, the expansion of infectious disease terminology reflects the dynamic nature of medical language. New diseases and medical discoveries require the creation of new terminological units, which are often formed using existing morphological patterns.

5. Conclusion

The study analyzed the lexical-semantic, structural-typological, and lexicographic features of infectious disease terminology in English and Uzbek languages. The results show that medical terminology represents a highly structured and internationally standardized lexical system.

The research revealed that infectious disease terminology can be classified into semantic groups including disease names, pathogen terminology, and symptom vocabulary. Structural analysis demonstrated that many terms are formed using classical Latin and Greek elements, while Uzbek terminology adapts these international terms within its own linguistic framework.

Lexicographic analysis highlighted the role of medical dictionaries in standardizing terminology and facilitating effective scientific communication.

Overall, the study confirms that the development of medical terminology is influenced by both international scientific traditions and national linguistic characteristics. Further research may focus on translation issues, terminology standardization, and the development of Uzbek medical lexicography.

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