

LEXICAL-SEMANTIC FEATURES OF MEDICAL TERMINOLOGY IN ENGLISH AND UZBEK (ON THE EXAMPLE OF INFECTIOUS DISEASE TERMINOLOGY)

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Abstract: Medical terminology represents a highly specialized subsystem of language characterized by precision, systematic organization, and internationalization. The lexical-semantic features of medical terms reflect historical, cultural, and linguistic processes that shape professional communication. This article examines the lexical-semantic characteristics of medical terminology in English and Uzbek, focusing specifically on terms related to infectious diseases. The study analyzes semantic structures, word-formation mechanisms, synonymy, polysemy, borrowing processes, and terminological standardization. Using comparative, descriptive, and corpus-based methods, the research identifies similarities and differences in the development and usage of infectious disease terminology in both languages. The findings demonstrate that English medical terminology is largely based on Greek and Latin borrowings, while Uzbek terminology reflects a combination of international terms and native lexical resources. The article contributes to medical linguistics, comparative lexicology, and translation studies by providing insights into the semantic organization and cross-linguistic adaptation of specialized vocabulary.

Keywords: medical terminology, lexical semantics, infectious diseases, English language, Uzbek language, term formation, borrowing, comparative linguistics, medical linguistics

1. Introduction

The rapid development of medical science has led to the continuous expansion of medical terminology across languages. Medical terms function as essential tools of professional communication, ensuring precision and clarity in diagnosis, treatment, and research. Infectious diseases, in particular, represent a dynamic area of medical discourse due to global pandemics, epidemiological research, and public health communication.

The study of lexical-semantic features of medical terminology reveals how specialized vocabulary is formed, structured, and integrated into different linguistic

systems. English, as the dominant language of international medical research, has influenced the development of medical terminology worldwide. Uzbek, as a Turkic language with a rich historical background and increasing participation in global medical discourse, demonstrates unique patterns of terminological adaptation and localization.

The aim of this study is to analyze the lexical-semantic features of infectious disease terminology in English and Uzbek. The objectives include:

- Identifying semantic structures of infectious disease terms
- Analyzing word-formation processes
- Examining borrowing and internationalization
- Investigating synonymy and polysemy
- Comparing terminological systems in both languages

2. Literature Review

The study of medical terminology has been addressed in linguistics, lexicology, and terminological research.

Wüster (1979), the founder of modern terminology theory, emphasized the importance of standardization and conceptual clarity in scientific terminology. His General Theory of Terminology highlights the systematic organization of terms within specialized fields.

Sager (1990) explored the principles of term formation and semantic precision in technical languages. He noted that medical terminology demonstrates high degrees of internationalization due to Latin and Greek roots.

Crystal (2008) examined language globalization and emphasized the dominant role of English in scientific discourse. English medical vocabulary heavily relies on classical borrowings, which function as internationalisms.

In Uzbek linguistics, scholars such as Madvaliyev (2010) and Rahmatullayev (2012) analyzed terminological development in Uzbek scientific discourse. They highlighted the coexistence of native Turkic lexical units and borrowed international terms, especially in medicine.

Recent studies on COVID-19 terminology (e.g., Hossain, 2021) demonstrate how infectious disease lexicon rapidly evolves in response to global health crises. These studies underline semantic shifts, neologism formation, and lexical borrowing processes.

However, comparative research focusing specifically on infectious disease terminology in English and Uzbek remains limited. This article addresses this gap by providing a systematic lexical-semantic comparison.

3. Methods

This research employs a combination of qualitative and quantitative linguistic methods:

3.1 Comparative Method

The comparative method is used to analyze similarities and differences in infectious disease terminology between English and Uzbek.

3.2 Descriptive Analysis

Descriptive analysis examines semantic structures, word-formation models, and terminological patterns.

3.3 Corpus-Based Observation

Medical dictionaries, epidemiological reports, WHO documents, and bilingual glossaries were analyzed to collect representative examples of infectious disease terminology.

3.4 Componential Analysis

Componential analysis identifies semantic components within terms (e.g., pathogen, transmission mode, symptoms).

A total of 150 infectious disease terms in English and their Uzbek equivalents were examined.

4. Results

4.1 Semantic Classification of Infectious Disease Terms

The analysis shows that infectious disease terminology in both languages can be classified into the following semantic groups:

1. Disease names (e.g., tuberculosis - sil kasalligi)
2. Pathogens (virus - virus; bacteria - bakteriya)
3. Transmission modes (airborne transmission - havo orqali yuqish)
4. Symptoms (fever - isitma; inflammation - yallig'lanish)
5. Preventive measures (vaccination - emlash; quarantine - karantin)

4.2 Word-Formation Mechanisms

4.2.1 English

English medical terms often derive from Greek and Latin roots:

- hepatitis (hepar + -itis)
- epidemiology (epi + demos + logos)
- bacteriology

Affixation plays a major role:

- -itis (inflammation)
- -emia (blood condition)
- -logy (study of)

Compounding is also common:

- bloodstream infection
- immune response

4.2.2 Uzbek

Uzbek terminology demonstrates:

1. Direct borrowing (virus, epidemiya, pandemiya)
2. Calque translation (airborne infection → havo-tomchi infeksiyasi)
3. Native formation (yuqumli kasallik, o'pka shamollashi)

Uzbek frequently combines borrowed stems with native morphological markers.

4.3 Borrowing and Internationalization

English functions as a donor language in global medical discourse. Uzbek has adopted many international medical terms, especially after independence, to align with international standards.

Examples:

- COVID-19 → COVID-19 (unchanged)
- pandemic → pandemiya
- antibiotic → antibiotik

However, Uzbek often preserves semantic transparency through descriptive translation:

- infectious disease → yuqumli kasallik

4.4 Synonymy and Polysemy

English medical terminology tends to minimize synonymy for precision.

However, doublets exist:

- influenza - flu
- tuberculosis - TB

In Uzbek:

- sil - tuberkulyoz
- gripp - influenza

Polysemy is limited in strict medical discourse but appears in general language usage (virus used metaphorically in both languages).

5. Discussion

The findings reveal that English infectious disease terminology demonstrates high morphological productivity due to classical affixation. Uzbek, in contrast, shows hybridization - combining international borrowings with Turkic word-formation patterns.

Semantic transparency is generally higher in Uzbek descriptive terms (yuqumli kasallik = "contagious disease"), while English terms often require etymological knowledge for full comprehension.

Globalization has accelerated terminological convergence. The COVID-19 pandemic significantly expanded shared lexical units across languages.

However, challenges remain in translation accuracy, terminological standardization, and semantic equivalence.

6. Conclusion

The lexical-semantic analysis of infectious disease terminology in English and Uzbek demonstrates both universal and language-specific characteristics.

English terminology is highly internationalized, morphologically systematic, and rooted in classical languages. Uzbek medical terminology reflects a balance between international borrowings and native lexical resources.

The comparative study highlights:

- Structural similarities in semantic classification
- Differences in word-formation strategies
- The impact of globalization on terminological convergence
- The importance of standardization in medical communication

This research contributes to comparative lexicology, medical linguistics, and translation studies. Further research may explore sociolinguistic aspects of medical terminology and its role in public health communication.

References

1. Crystal, D. (2008). A dictionary of linguistics and phonetics. Blackwell.
2. Hossain, M. (2021). COVID-19 terminology and semantic shifts in global discourse. *Journal of Medical Linguistics*, 12(3), 45-60.
3. Madvaliyev, A. (2010). O'zbek terminologiyasi asoslari. Toshkent.
4. Rahmatullayev, S. (2012). Hozirgi o'zbek adabiy tili leksikologiyasi. Toshkent.
5. Sager, J. C. (1990). A practical course in terminology processing. John Benjamins.
6. Wüster, E. (1979). Introduction to the general theory of terminology. Springer.
7. SA Jabborova (2024). НАУЧНЫЙ ВЕСТНИК. ФерГУ 30
8. World Health Organization. (2020). WHO guidelines on infectious diseases terminology. WHO Press.