Translation Challenges of English Dental Terms Into Uzbek

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Abstract: The translation of dental terminology from English into Uzbek presents a range of linguistic and conceptual challenges due to structural differences between the two languages and the unequal development of specialized medical lexicons. English dental terms are largely derived from Latin and Greek, whereas Uzbek medical terminology combines native lexical elements with international borrowings. This article investigates the major difficulties encountered in translating English dental terms into Uzbek, including semantic non-equivalence, morphological adaptation and terminological inconsistency.

Introduction: Medical translation is an ultra-specialized field due to the need for precision in terms of terminologies. Since its classification, the field of dentistry is closely tied to the use of standardized terminologies, such as the standardized terminology utilized for the appropriate diagnosis, treatment, and communication. The leading language of medical science (which encompasses dentistry with it) is indeed English, requiring a dependable translation to other foreign systems like Uzbek. Nevertheless, Uzbek dental terms are still being systematized, and many English dental terms lack equivalent Uzbek equivalents. Siddikova and Nartaeva claim that medical terminology in Uzbek remains subject to active lexical creation and borrowing, hence rendering translation problematic [1, 281]. Thus, this study seeks to understand what are the key problems faced by an English doctor of dentistry when translating English terms to Uzbek and to analyze the linguistic aspects that need to be addressed.

Moreover, the translation of dental terminology is complicated with the lack of a common terminological database in Uzbek dentistry. Consequently, translators and medical practitioners may depend on their own interpreting, transliteration, or descriptive translation and this practice may deteriorate terminological consistency and clarity. By relying heavily on international Latin-based vocabulary and applying recent Uzbek translations, parallelized forms result.

This not only directly reduces the quality of translated academic literature, it also complicates dental education and clinical documentation. As a result, the requirement for linguistic analysis systemically and the creation of Uzbek dental terminology becomes more and more the focus of the education industry, for effective communication within the profession and proper transmitting of knowledge.

Methods

The research adopts a qualitative descriptive methodology. A corpus of commonly used English dental terms was selected from dental dictionaries and academic articles. These terms were analyzed through:

- Structural analysis (word formation and morphology);

- Semantic analysis (meaning correspondence);

- Comparative analysis between English and Uzbek equivalents;

Secondary data were obtained from peer-reviewed linguistic and medical publications focusing on dental terminology and medical translation. No human subjects were involved. Thus, to ensure methodological reliability, our selected dental terms reflect various sections of dentistry, including preventive, restorative, surgical, and periodontal practice. [5, 3] The corpus contains both single-word terms and multi-word terminological units, making it possible to study

variation in structure and meaning more comprehensively. Each term was examined in its professional context to identify potential shifts in meaning during translation.

Furthermore, the comparative study aimed at identifying cases of full equivalence, partial equivalence, and non-equivalence between English and Uzbek dental terminology. Special attention was given to translation methods such as transliteration, calquing, and descriptive rendering, which are the usual solutions where no lexical equivalents exist. This way, the most frequent linguistic patterns and translation problems observed in the English-Uzbek dental terminologies could be distinguished.

Results

The analysis revealed three major categories of translation challenges.

Semantic non-equivalence. Many English dental terms have no exact semantic equivalent in Uzbek. For example, the term periodontitis refers to a specific inflammatory disease of the supporting tissues of teeth. In Uzbek, it is often rendered through descriptive phrases rather than a single standardized term, which may result in loss of precision. Similar issues were identified in semantic studies of dental terminology [2, 45].

Morphological and structural differences. English dental terms are often formed using classical morphemes (endo-, peri-, -itis), while Uzbek is an agglutinative language that relies on suffixation. The adaptation of international terms into Uzbek frequently requires phonetic and morphological modification, which may lead to multiple competing variants. Navruzova notes that Uzbek medical terms often undergo semantic narrowing or expansion during adaptation [3, 170].

Terminological Inconsistency. Another significant problem is the lack of unified standards in Uzbek dental terminology. The same English term may be translated differently across textbooks, academic articles, and clinical practice. This inconsistency can cause misunderstandings among professionals and students. Studies on dental terminology translation emphasize the need for terminological harmonization [4, 12].

Table 1. Major translation challenges of English dental terms into Uzbek.

Category of Challenge	Description	Example	Main Linguistic Issue
Semantic non-equivalence	Absence of direct semantic equivalents for many English dental terms in Uzbek, leading to descriptive or approximate translations	Periodontitis translated through explanatory phrases in Uzbek	Loss of terminological precision; semantic mismatch
Morphological and structural differences	Differences in word formation systems between English (classical morphemes) and Uzbek (agglutinative structure)	Endodontics, peri-implantitis adapted with phonetic and morphological changes	Multiple variants; semantic narrowing or expansion
Terminological inconsistency	Lack of unified standards causes variation in translations across academic and clinical texts	One English term translated differently in textbooks and practice	Misunderstanding; lack of harmonization

Discussion

The findings confirm that translation challenges in dental terminology stem from both linguistic and extralinguistic factors. Linguistically, differences in word formation, semantic scope, and lexical availability complicate direct translation. Extralinguistically, the incomplete standardization of Uzbek medical terminology contributes to inconsistency.

To address these issues, translators should combine transliteration, calque, and descriptive translation strategies depending on context. Additionally, collaboration between linguists and dental professionals is essential to develop standardized Uzbek dental glossaries, as recommended in medical linguistics research [1, 283].

Conclusion

The current research shows that translating dental terms from English into Uzbek is a complicated and methodologically nuanced operation. It is also concluded that poor translation cannot be explained by lexical void, and lies behind the deep structural, semantic, and standardization-related problems within the system which are of Uzbek dental terminology. This

reflects the existence of semantic non-equivalence, morphological divergence and terminological inconsistency and it shows that direct translation can lack adequacy to achieve concepts alignment.

From a linguistic point of view, the dominance of classical morphemes in English dental vocabulary is in stark contrast to the agglutinative construction of Uzbek, resulting in many adaptation difficulties and multiple parallel options being created. Simultaneously, there is little agreement on a standard, unified and official dental terminology system in Uzbek, resulting in variability in use within academic, educational and clinical settings. These disparities can also impact professional communication, the translator's trustworthiness, as well as the caliber of educational materials about dental work. From the results one can deduce that successful translation of dental terminology is contingent upon a versatile and sensitive approach that incorporates transliteration, calquing and description. The study adds more weight to the point of inter-disciplinary working between linguists and translators and dental experts to maintain accurate and stable terminology.

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