

# Explore the Challenges in Translating Medical Terms from Tamil to English

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**Abstract**—Translating medical terminology is an essential aspect of facilitating communication in the global healthcare landscape. As medical knowledge and practices are shared across linguistic boundaries, and contextually appropriate translation of medical terms becomes paramount to ensure patient safety, quality of care, and the advancement of medical research. This research delves into the intricate challenges encountered during the translation process of medical terms from Tamil to English. The methodology of the study includes comparative and Descriptive methods of qualitative Methodology. The primary data was collected from the translation of the medical books from Tamil to English. The research also examines the impact of these challenges on patient care, medical education, and cross-border collaboration among healthcare professionals. By shedding light on the multifaceted difficulties involved in translating medical terms, this study contributes to an improved understanding of the complexities faced by translators. The findings of this research can guide the development of strategies of translation used to overcome these challenges and ultimately enhance the precision and effectiveness of medical term translation, fostering better communication and cooperation in the global healthcare arena.

**Index Terms**—Medical terms, Translation challenges, Healthcare communication, Linguistic barriers, Terminology standardization.

## I. INTRODUCTION

The medical domain is a critical area where the appropriate translation of terms and information can have profound implications for patient care, medical research, and knowledge dissemination. Medical translation is one of the fields that is expanding. Medical translation covers a wide range of topics, including pharmacology, the medical rescue system, surgery, obstetrics, pediatrics, psychiatry, internal

medicine, cancer, cardiology, and other specialized subjects, as well as other academic departments like law or administration. The global dissemination of information and new developments in medicine depends in a significant way on translation. Medical translation is not restricted to a certain genre or consistent discourse. In addition to popularizations like textbooks for medical students and popular science books on medicine, the translated texts also include research papers, conference proceedings, case studies, case histories, discharge summaries, reports, and relatively straightforward texts for patients like information leaflets, consent forms, and brochures (Wioleta,K., 2015, p. 271)

Medical Terminologies are the specific problematic area that often leads to difficulty in Translation. It is always defined as a set of words that describe the human body and its process in a scientific manner. It differs from everyday language in that it uses more specific vocabulary. Hundreds of new words are being created in this field as a result of the enormous successes and vast advancements that the scientific and medical branches have made in the world. Since English-speaking countries are at the top of the medical sciences, the majority of medical jargon also has English roots, or more precisely, Greek-Latin origins that have been accepted by and through time become an integral element of the English language. Medical English has been translated into various languages outside of the country as a result. Hence, to provide instructions to patients or laypersons and to develop medical education in the native language, books and research papers are produced continuously by medical professionals. While translating such books or articles into English translators encounter challenges due to the type of target readers; Experts, Semi-experts or Layperson and due to the availability

of more than one equivalent for a single term. In other words, information is passed to the target readers in the following manner;

- Specialist-Specialist (e.g.: A researcher presenting a paper in a medical conference),
- Specialist- Semi-Specialist (e.g.: A professor delivering lectures to his medical students)
- Specialist-Non-Specialist (e.g.: Doctor Talking to a Patient)

It is important to note that the translators should know their target audience in order to level their style accordingly. (Charles Briffa, 2012, p.1). This can further be classified as follows; some terminologies carry specialized meaning and ordinary meaning focusing on the target readers. If it is a general reader the information they need is for preventing the disease, when it is a patient they should know the information regarding their disease and treatment. A student reads the medical translation to become a health professional whereas a researcher reads the information to advance the knowledge (Resurreccio 2007:53).

This research aims to delve into the multifaceted challenges inherent in translating medical terminology from Tamil to English and to shed light on the implications of these challenges on healthcare, education, and communication within the Tamil-speaking medical community. This study is based on the translation of the medical books, namely காசத்தினை நிறுத்தும் உத்தி, சுகவலம்புரி, respectively.

## II. AIM AND OBJECTIVES

The aim of this research is to identify the linguistic and semantic issues that impact the translation of medical terminologies from Tamil to English and the objectives of the study are as follows;

- To compile a comprehensive list of medical terms and phrases commonly used in Tamil healthcare contexts.
- To analyze the linguistic and structural differences between Tamil and English that impact the translation of medical terms.
- To explore the role of technology and translation tools in mitigating translation challenges and improving the quality of medical translations.

- To use the proper procedures of translation to solve the issues.
- To offer recommendations for a medical translation which the target audience may comprehend.

## III. METHODOLOGY

This study is primarily based on Qualitative methodology. Based on the researcher's experience of the subject, descriptive analysis and comparative analysis are used. Descriptive analysis describes two parts: medical terminology and translation. On the other hand, the comparative analysis compares the SL with the TL and examines the translation techniques used when translating medical terms. The data for the study are collected through the following sources;

Primary Data Sources:

Translations of the problematic and inconsistent terms were taken from three medical books in order to evaluate the level of terminological differences in the target language: English. They are as follows;

1. காசத்தினை நிறுத்தும் உத்தி- Strategy to stop Tuberculosis
2. சுகவலம்புரி-Sugavalampuri

Secondary Data Source:

1. Dr. Sami Sanmugam.(2005). Medical Glossary. Poonga Press. Chennai 600 030.
2. Dr. M..Kumaresan, மருத்துவச்சொல்லாக்கம். Pages264-265.
3. Dr. Radha Chellappa, (2006). கலைச்சொல்லியல். Thamarai Publications. Chennai.

## IV. DISCUSSION: ANALYSIS OF THE CHALLENGES IN TRANSLATING MEDICAL TERMINOLOGIES

IV.1 USE OF AFFIXATION IN THE TRANSLATION OF MEDICAL TERMINOLOGIES  
A wider range of medical words are frequently encountered by medical translators. Since the medical sector originated by the Western world, the majority of them are taken from Greek or Latin. Greek roots are used to generate terms that describe a disease, a

treatment, or a condition, whereas Latin roots are used to create words that describe anatomical structures.

The concept of roots, prefixes, and suffixes is frequently a basis for medical terminology. A medical term's root word carries its fundamental meaning. A prefix is a word element that is added to a root word's beginning. Prefixes often define a position, direction, or negation and alter the meaning of words. Since many medical terminologies are founded on Latin and Greek roots, medical translators should be well-versed in these languages. A word element that is added to the end of a word and alters its meaning is known as a suffix. Suffixes are commonly used in medical language to signify a disease, treatment, or symptom. For example; கருப்பை நோயியல் (sugavalampuri, p.08) is translated into English as Endometrial Pathology or Uterine Pathology. Here, the suffix -logy denotes இயல் in Tamil medical context and when it added to the Greek root word *Pathos* which means suffering where *Path* denotes disease, it produces the meaning related to suffering from the disease that occurs in the Uterus. Further, Endometrial Pathology is the medical jargon which is widely used by the medical professionals and Uterine pathology is the term which can be applied to translate a medical jargon to Semiexperts or layperson.

Some suffixes can change their meaning when they are added to the root. The translator should possess a clear knowledge of terminologies which include affixation, otherwise, a wrong translation of terminologies will lead to the wrong interpretation of the text. Some affixation may pose an illusion as they seemed to be antonyms or synonyms. But in fact, those terminologies may carry very different meanings.

- காசநோயாளிகளுக்கான குறுகியகால நேரடி அவதானிப்பின் கீழான சிகிச்சையை நடைமுறைப்படுத்தல்- Implementation of short-term direct observation prophylaxis for Tuberculosis Patients (காசத்தினை நிறுத்தும் உத்தி, p.39)
- ஒவ்வாமை- Anaphylaxis (காசத்தினை நிறுத்தும் உத்தி, p.03)

When compared to the above terminologies, they look like anonyms but they express different meanings, Likewise 'மூட்டு நோக்கள்' is translated into English as

'arthritis'. In Techniques of Translation by Radha Chellapa (1999), it is said that "the suffix 'itis' could have been added to the medical terminology to imply inflammation in the body's organs. This English suffix 'itis' can be translated in Tamil as "அழற்சி", hence, some people may confuse that those it in not mentioned as 'மூட்டு நோக்கள்' in the source text, however, the Merriam Webster Doictionary provides the definition as inflammation of joints due to infectious, metabolic or constitutional causes. Accordingly, it is a type of inflammation in the joints is understood. Whenever the meaning seems strange, it is preferable to have a discussion with the medical officer.

#### IV.2 PROBLEMS DUE TO SYNONYMS

This problem arises due to the availability of more than one equivalent for a Tamil medical term in English. For example; கருநெய் (sugavalampuri, p.01) has three equivalents in English as Myocardial Infarction, Heart attack or Cardiac arrest. The term 'Myocardial Infarction' is the medical term which is widely applied in medical books or journals, *Myo* indicates muscles, *cardial* means heart and *infarction* means dead/dying due from lack of O<sub>2</sub>/blood. The other equivalents can be applied to semi-experts or laypersons. Likewise the following terms can be classified according to the target readers;

Medical Terminology	Specialized Meaning (For experts)	Ordinary Meaning (For semi-experts/laypersons)
உயர் குருதி அழுக்கம்	Hypertension	High Blood Pressure
நோயறிகுறி	Syndrome	Symptoms
வலிப்பு நோய்	Epilepsy/ Seizure	fit
உளப்பிளவு நோய்;	Schizophrenia	Dementia, Psychosis, mania, Hallucinosiis
சளிப்பரிசோதனை	Sputum-Smear Test	Phlegm/ mucous test
மூட்டு நோக்கள்	Arthritis	Joint Pains

Table 1 Meaning for Experts, Semi experts/Laymen

For academic purposes or for specialists, specialized meanings should be utilized; for semi-experts and laypeople, it is preferable to employ ordinary meanings. Anette Thorup Pedersen and Tanya Nielsen Halliday (2009) provide the following justification for

the use of medical terminology for experts: It frequently provides a more detailed and in-depth description than common words provide. Professionals are conversant with medical jargon. Ordinary terms usually need additional words, which lengthens the content without contributing anything to it (it's also likely that they have the reverse effect because their meanings are frequently longer, less clear, and apparent). Ordinary language is used by laypeople and semi-experts alike. As far as possible, refrain from employing medical terminology because semi-experts and laypeople do not grasp it. Be mindful, nevertheless, that some medical terminology, like diagnosis, are so widely used that both semi-experts and laypeople are familiar with them.

#### IV.3 Problems in the translation of Medication/ test

Since it is appropriate to represent the names using their origins, the source text author utilized the loan blend approach while rendering the following tests. While translating it is difficult to render the exact equivalent. For example,

Eg: தோற்சோதனை (மாண்டு பரிசோதனை)-The Mantoux Tuberculin Skin Test (TST)

Skin Test (Maandu Test) is the word-for-word translation of the equivalent, but after studying the language used in scholarly publications and research-related materials, it was determined that the correct phrase to use is The Mantoux Tuberculin Skin Test (TST) or TB Skin Test. The abbreviation is put in the brackets for ease of comprehension. The meaning of the test is a little quantity of fluid called tuberculin is injected into the skin on the lower portion of the arm to conduct a TB skin test.

Another example is the translation of the medical test குவாண்டிப்பெரோன்

இரத்தப்பரிசோதனை. In the first instance, it was translated using word-for-word translation as QuantiFERON Blood Test, though it is correct to some extent the target equivalent which is produced at the first instance is not the exact one. It should be translated as QuantiFERON TB Gold Plus blood test. In this test, a blood sample from the patient is taken and sent to a lab for examination. There, the patient's immune response to very specific TB antigens is

measured and reported to the doctor to help with the diagnosis of TB infection.

Hence, the Translator should understand the importance of each test, it will help to produce the appropriate context in the target language.

#### IV.4 Translation of Acronyms and Abbreviations

Further, translators face problems in translating Abbreviations and acronyms. These phrases or clauses have been shortened. The medical field utilizes the extensive use of acronyms. They increase effectiveness as long as they are utilized properly. While an acronym consists of a group of initial letters from a phrase that normally becomes another word, an abbreviation is frequently a shorter version of words used to represent the entire. Because of their reduced shape, they are highly challenging to comprehend. Additionally, one acronym or abbreviation may have a distinct meaning in other industries, which can create uncertainty. Although they are sometimes used interchangeably, acronyms and abbreviations are significantly different. The fundamental distinction is that acronyms create new words, whereas abbreviations are just a collection of letters.

For example,

- ஈ.சி.ஜி எக்கோ- There are two terminologies in this part ECG and ECHO but there is no ‘,’ to separate the terminologies. This led the translator to ambiguity at the first instance, but understanding the fact, the terminologies are transliterated using the expansion within the bracket as ECG (Electrocardiogram) ECHO (Echocardiography).
- ஏசிஈ இன்சிவிட்டர்- The source word was translated in the draft as ACE Incibitor due to the dilemma in the pronunciation but by referring to medical journals it was corrected as ACE (Angiotensin-converting enzyme) Inhibitor.
- எல்.டி.எல் கொலஸ்ரோல்- It is translated using transliteration and expansion procedures of translation as L.D.L (Low-Density Lipoproteins) Cholesterol.

According to New Mark, acronyms are regularly developed for specialized subjects and specially built items, equipment, and processes. Depending on how significant they are, there is either a standard corresponding name in Translation or, if one is not yet

available, a descriptive term. Additionally, if the translator is only translating an excerpt, he must watch out for acronyms that were made specifically for that text and are difficult to find. Acronyms that are equally essential in both the SL and the TL may differ in each language (Peter Newmark, 1998).

As a result, the translators create glossaries that include the most recent equivalences and attach them to the conclusion of the book to help overcome the difficulties in identifying the proper equivalents utilizing translation techniques and strategies. Further, asking medical officers for assistance in finding equivalents is a highly useful strategy.

#### V. CONCLUSION

Explore the challenges in translating medical terms from Tamil to English, is focus on selected medical terminologies, and reveal where linguistic, and technical factors intersect. The techniques for translating Tamil medical words into English, as well as medical terminology and their components, were examined in this study work. Some translation issues were also emphasised. The findings presented herein contribute to a deeper understanding of the multifaceted nature of medical translation challenges and offer insights into potential avenues for improvement and collaboration.

As the medical field continues to advance and globalize, accurate translation of medical terms assumes a pivotal role in knowledge dissemination, patient care, and international collaboration. While technological advancements have introduced automated translation tools, human expertise remains irreplaceable in navigating the nuances of medical terminology, ensuring contextual relevance, and maintaining the highest standards of accuracy. This research serves as a foundation for further exploration and dialogue, inspiring ongoing efforts to bridge linguistic and cultural gaps within the realm of medical knowledge exchange.

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