

Original Research

Inconsistency of translating medical abbreviations and acronyms into the Arabic language

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The paper identifies the challenges of translating variants of medical documents that include acronyms and abbreviations, which are standard in medicine, pharmacology, and healthcare contexts and documents, thus intending to examine the inconsistency of abbreviation and acronym use in a medical context. The study adopts the descriptive approach to investigate the inconsistency of medical abbreviations in English that include multiple medical meanings/versions of acronyms and abbreviations to be translated into Arabic. The samples considered in this study are documents frequently utilised in the medical context in hospitals, including graphic signs, medical reports, admission forms, and prescriptions. The documents included 18 medical abbreviations and acronyms to be translated from English into Arabic. The results revealed that the abbreviations and acronyms used in medical documents showed a discrepancy in the translation, and many versions of translations are possible. Therefore, the findings underpinned the main challenges of translating acronyms and abbreviations from English as a source language into Arabic as a target language and the consequentiality of training for the medical translators to overcome these challenges. The study concludes that medical abbreviations, acronyms, and initialisms are more frequent and multi-version and lack consistency in several documents, including medical reports, resulting in many challenges. This may also lead to erroneous versions in translation. Thus, it is recommended translators' vigilance be raised to overcome the obstacles that impede translation accuracy.

KEYWORDS: *abbreviation, acronym, medical term, initialism, standardisation, English, Arabic, medical translation*



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1. INTRODUCTION

1.1. Medical translation as a challenge

Based on the subject matter, scholars of translation generally divide translation into non-literary and literary translation. Non-literary translation covers scientific and technical translation. Medical translation is categorised as a subdivision of scientific translation (Pan, 2021). It is a precarious field since it is concerned with

issues relating to the life and health of the human being. This field embraces peculiar Latinate and Greek terminologies, initialisms, abbreviations, acronyms, and eponyms. When translating these constituents from English into the Arabic language, translation challenges occur due to non-equivalence and inconsistency. There are multiple versions for each type, and Arabic does not conventionally adopt the abbreviation systems. It is ad-

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ditionally complicated by the fact that many readers also encounter difficulties in the pronunciation of words and their senses. This challenge of pronunciation is due to the Latin and Greek origin of words and amalgamations of words. Understanding the source of medical terms is consequential since it allows the translator to infer the designation predicated on the whole purport and engender the exact equivalence in the target language (Montalt & González-Davies, 2014, p. 232).

Medical translation includes translation of scientific and pharmaceutical texts (Gobet & Rega, 2022). It has been noted that medical syntax, abbreviations, and acronyms differ from everyday language in their specificity. Herget and Alegre (2009) identify medical language as one of the languages of special purport. As a component of the language system, it is considered a component of professional or technical communication as well as context-specific communication.

Several medical conditions, procedures, and diseases have been named after the researchers who discovered them, including Parkinson's disease, Crohn's disease, and Cushing's disease. As the name insinuates, possessive terms are those that describe diseases that were named after their first discoverers, like Crohn's disease. Medical language withal uses coalescences (Farghal, 2000, p. 45), which are incipient words made from another word. As derived from 'capsule' and 'tablet', the term 'caplet' pertains to the similarities found between capsules and tablets.

The challenges of acronyms and abbreviations occur when converting these elements into Arabic. It is difficult to identify a standard counterpart because they are unusual and require conventional guidelines to produce. Thus, this study investigates the phenomenon of inconsistency by exploring the main challenges of converting acronyms and abbreviations into Arabic.

1.2. Research problem

In the medical field, abbreviations and acronyms are regularly used by physicians and medical practitioners in different settings. The reason for adopting them is that the abbreviations and acronyms are laconic and used to facilitate communication in specific settings. Therefore, when translating abbreviations, medical translators may find it easy to do that. For instance, when they translate abbreviation like BP (blood pressure) *daght aldam*, PR (pulse rate) *mueadal alnabd*, Temp (temperature) *alharara*, RR (respiratory rate) *mueadal altanafus*, BOS (blood oxygen saturation) *mueadal tashbae alaksijin*, CBC (complete blood count) *surat aldam alkamila*, X-ray *alshiyeyaata alsinyia*, and CT (computerised tomography) *alashieat almaqtaeia*, it may be easy to render the abbreviations and acronyms because they are the basic abbreviations as they resemble the visual signs used when admitting a patient to the hospital. However, when translating medical documents with abbreviations such as such MRI (magnetic resonance imaging) *alranin almighnatisiu* and MRI (medical records information) *maeakum altibiya*, and IRF (impaired renal function) *aikhtilal wazayif alkulaa* and IRF (improvement in renal function) *tahasun wazayif alkulaa*, it is a bit challenging. Therefore, the problem raised in the present article is illustrated by the fact, as many experts have confirmed, that abbreviations and acronyms are likely to have multiple equivalents in the source (SL) and target languages (TL). The abbreviations may have a minimum of fifteen different meanings (Moris, 2020). For example, BAL, bronchoalveolar lavage and British antilewisite, and rDNA may refer to both ribosomal and recombinant DNA, which may mean blood alcohol level, bronchoalveolar lavage. In the study, this problem is known as the inconsistency of translating abbreviations and acronyms and is emphasised. Strategies are proposed to facilitate its translation due to the different meanings, and solutions are suggested.

1.3. Research objectives and questions

One of the most irritating aspects of studying medical data is the widespread use of acronyms. Some abbreviations are standard, and the general public understands what they signify. For example, the term 'Rx' is commonly used to refer to a pharmaceutical prescription. Attempting to comprehend discipline-specific or provider-invented abbreviations, on the other hand, can be frustrating. When looking at the abbreviation in context, the translators can figure out what it means. If this

method fails, contacting a medical professional may be necessary. If the desired practitioner is unavailable, a nurse or office manager can typically assist. It would be difficult, if not impossible, to provide a list of all medical acronyms (Appleby & Tarver, 2006, p. 231). Abbreviations and acronyms, unlike medical terminology, are challenging to comprehend and translate from one language to another due to the various origins of Latin; Greek, English, and French, healthcare phrases have proven to be problematic. There have been numerous studies on the difficulties in translating medical words from English to Arabic. Kamil and Hazem (2019), for example, investigated the reasons of difficulty of translating abbreviations and acronyms into Arabic. Other researchers such as Shuhan et al. (2022) investigated the semantic challenges of translating acronyms and abbreviations. However, the present study aims to address the topic from a different perspective and analyse how a variety of medical, pharmaceutical, and health-related documents and contexts use inconsistent transliteration of abbreviations and acronyms. It also aims to clarify translation procedures for dealing with abbreviations and acronyms that are difficult to translate.

To that end, this paper examined the following research questions.

1. What is the source of inconsistency in acronyms and abbreviations?
2. What is the effect of the inconsistency of acronyms and abbreviations in the medical field?
3. How to deal with acronyms and abbreviations inconsistency?

2. THEORETICAL BACKGROUND

2.1. Acronyms and abbreviations as part of medical language

The language of medicine is characterised by brevity, which implies using short phrases, acronyms, and abbreviations. Thanks to Hippocrates, who inherited vast knowledge from earlier civilisations and established a medical school, scholars of that time were able to collaborate to write works on anatomy, physiology, pathology, hygiene, and medical ethics. Later, the Greeks established Alexandria, which became a melting pot of societies and ideas, languages, and cultures from the Mediterranean, the East, India, and Egypt. Greeks knew that the museum and library housed works on anatomical dissections, physiological experiments, and collections of animals classified by scholars and provided veterinary research and livestock oppor-

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tunities. In the corresponding studies and documents, abbreviations and acronyms were used extensively (Montalt & González-Davies, 2014).

Acronyms and abbreviations are laconic forms of words or phrases that are spelled differently according to language rules. Acronyms are abbreviations created by combining the first letters of two or more words. According to Ehrlich and Schroeder (2014), *Light Amplification Stimulated by Radiation Emission* is made into an acronym for laser. Yule (2010) defines acronyms as new words formed by combining the initial letters of a group of other words. Medical acronyms such as ICU (Intensive Care Unit), CPR (Cardiopulmonary Resuscitation), and MRI (Magnetic Resonance Image) are commonly used in medical fields. They are words formed from one to more initial capitalised letters or syllables. AIDS is the perfect example of an acronym that stands for *Acquired Immune Deficiency Syndrome*. Other examples include REM which refers to *Rapid Eye Movement*, and SIDS standing for *Sudden Infant Death Syndrome*. Physicians commonly use many abbreviations and acronyms in medical settings. Kasprovicz (2010) attributes the everyday use of abbreviated words in the medical field to the historical tradition of medical language and the economy in space and time. Byrne (2014) discussed the peculiarity of abbreviations and acronyms as their meanings can vary depending on the subject, context, or even the company or organisation that produces the original text. The use of acronyms is motivated by either catchiness or brevity. Polysemy is also not uncommon in abbreviations and acronyms, which may have up to 15 different meanings (Davis, 2020; Montalt & González-Davies, 2014).

2.2. Formation and definitions

Aarts et al. (2020) view acronyms as initialisms pronounced according to ordinary grapheme–phoneme conversion rules. Shortening complex words is a long-standing practice. INRI, for example, is a Roman-era abbreviation. However, their use was limited until the

Second World War, when the creation of new acronyms increased significantly because they were a convenient way to speed up and encrypt communication (Izura & Playfoot, 2012, p. 862). Throughout their history, acronyms and abbreviations have been classified differently. Kafi (1991) classified abbreviations into four major and five minor categories: word clippings, acronyms, word blends, or word segments. Clippings are polysyllabic words formed by removing the final parts of the word, for example, *lab* from *laboratory*, or *flu* from *influenza*. Alsulaiman et al. (2019) classify clipping into four types: initial, final, medial, and complex. The final type, omitted in the last part, is the standard one, as in *clit* (clitoris). The first segment is the relocation of part of a word, as in *shrink* (head-shrinker). The medial clipping occurs when the middle segment of a comment is removed, as in *specs* (spectacles). When clipping is done to compound word segments, the phrase complex clipping is used. It can be done by leaving out the final part of the first word and the initial, for example, *sci-fi*. Acronyms are made by combining the first few letters of a word or phrase, such as AIDS and LAZER.

Another aspect of terminology is the use of eponyms in medical texts. An eponym, according to Newmark (1981, p. 198), is any word that is the same as or derived from a proper name and has a similar meaning. According to Newmark (1981), there are three categories of phrases derived from people, objects, and places. In a nutshell, eponyms are medical terms named after people. These medical terms are sometimes abbreviated and difficult to understand and translate, such as *Parkinson/Parkinson's*, *Eustachische Rohrer/Eustachian tube*, or *Cushing syndrome*. An eponym is the name of a disease, structure, operation, or procedure coined after the person who discovered or described it first. Alzheimer's disease, for example, is named after the German neurologist Alois Alzheimer (Ehrlich & Schroeder, 2009, p. 13). According to Crystal (2004, p. 120), acronyms and abbreviations can be defined as initialisms because there is no universal agreement on the definition of the idea. For brevity, acronyms have typically consisted of at least three initial capital letters formed from the abbreviation.

2.3. Structure and meaning of inconsistency

One of the difficulties in translating acronyms and abbreviations is the inconsistency of the components of these medical fields. Having different source languages (English and French), for example, from which medical

Arabic seeks most of its corpora, other translations work independently. Furthermore, multiple codified lexical resources are viewed as significant contributors to the diversity of terms reflected in terminological inconsistency (Crystal, 2004). However, terminological inconsistency is caused primarily by the lack of clear criteria for translators to translate medical texts. The type of target audience further demonstrates this, and its level of professionalism and education are frequently overlooked in the translation process. In this light, the following section examines medical terminology and medical translation. It begins with an examination of English medical terms, their etymologies, and their etymologies in Arabic. According to Newmark (1988), acronyms are frequently created within specific subjects and identify products, appliances, and processes based on their degree of importance and depending on whether there is either a standard equivalent term in translation or if it does not yet exist.

There are few medical abbreviations and acronyms in Arabic, and they are rarely used. According to Newmark (1988), Arabic resists and explains most acronyms. As a result, the Arabic translator directly translates each word when translating acronyms and abbreviations. Consider the following example to demonstrate this: MRI is an abbreviation for 'magnetic resonance image', which is translated in a complete form as *altaswir bialranin almighnatisii*.

According to Albin (1999), Latin is the preferred language for anatomical nomenclature, while Greek is preferred for pathology. González-Davies (2014), on the other hand, believes that most medical terms are of Greek origin, and attributes the Greek conception of medical terms to the physicians of ancient Greece, including Hippocrates. More reasons for the Greek sources of medical terms are given by John (2005), who claims that modern Western medicine can be traced back to the 5th century BCE when the Greek physician Hippocrates was born (460-377). First, the disease is attributed to physical causes, medical practice is distinguished from priestly ministries, and diagnosis is taught by observing and treating natural processes via fostering or restoring them. Hippocrates and his disciples and successors, including Galen, created many Greek medical texts.

Many of the anatomical, pathological, and therapeutic terms found in those writings are still in use today, with little or no change in meaning. Creating medical terminology is not an easy task; it necessitates the application of linguistic rules. Indeed, a word root ne-

cessitates a basic understanding of the term and the source language and a study of its etymology, which comes from the coining of terms in the Greek and Latin languages.

Furthermore, when developing a term, it should generally include a vowel *-o-* to have a soothing effect on the word's sound when applying a suffix. On the other hand, prefixes do not require further modification to be added to a word root because they usually end in a vowel or vowel sound. Spinello (2001) describes the

formation of medical terminology with the word 'myocarditis' in her article on the history of medical terminology. The scholar suggests that the term 'myocarditis' is formed by combining the Greek prefix *my/mys*, meaning 'muscle', with *-o-*. If we combine the Greek root word 'cardio', which means 'heart', and the suffix 'itis', which means 'inflammation', we get 'myocarditis', which refers to an inflamed muscle layer of the heart. In terms of meaning, many acronyms and abbreviations have multiple meanings (Table 1).

Table 1
Multiple meanings of medical abbreviations and acronyms

ABBREVIATION/ACRONYM	PRIMARY MEANING	SECODNARY MEANING	TERTIARY MEANING
CLD	chronic liver disease	chronic lung disease	–
BCA	bladder cancer	breast cancer	–
ABP	ambulatory blood pressure	arterial blood pressure	–
SSE	saline solution enema	soapsuds enema	–
PBL	primary breast lymphoma	primary brain lymphoma	–
CHD	congenital heart disease	coronary heart disease	–
RVH	renovascular hypertension	right ventricular hypertrophy	–
PCU	palliative care unit	primary care unit	protective care unit
TICU	thoracic intensive care unit	transplant intensive care unit	trauma intensive care unit
LFD	lactose-free diet	low-fat diet	low-fibre diet
PHTN	portal hypertension	prehypertension	pulmonary hypertension
SAD	social anxiety disorder	seasonal affective disorder	–

The list of medical abbreviations and acronyms with several meanings in Table 1 shows abbreviations and acronyms with three initials or more. Medical professionals will almost certainly use these initials as acronyms. Because they imply numerous meanings in English in the originating language, these medical abbreviations potentially have many Arabic equivalents. As a result, many translation versions are expected, and inconsistency emerges because of the diversity of source and target languages.

Nonetheless, abbreviations have been employed to denote one item at a time; acronyms may, to some extent, have a fixed meaning. For example, the abbrevia-

tions AIDS and LASER have evolved into full words frequently translated using the transference approach, which is based on the acronym's precise pronunciation and sometimes includes explanations. Other abbreviations and acronyms that follow the same translation strategy include HIV, SARS, Laser, rehab, lab, DNA, RAN, etc.

On the other hand, there are far too many abbreviations, frequently mixed up with others. For example, Social Anxiety Disorder and Seasonal Affective Disorder are both abbreviated as SAD. Thus, inconsistency is expected because of multiple abbreviations for different phrases.

2.4. Dealing with the inconsistency of translating acronyms and abbreviations

Because TL acronyms for SL technical acronyms do not exist, the only option is to convert the SL acronym to an EXTT or an ATT and then explain it in TL. In MTC, instead of being arabicised, acronyms are translated as initialisms. Except for 'electromagnetic', blending is displayed as TL compounds, meaning that the TL blend is superfluous if the clipped part can be recovered in the SL blend. Antivirus, for example, cannot be translated into TL because the prefixes *anti-* and *mono-* are unrecoverable in both languages. According to Newmark (1988), there is a conventional equivalent term in translation or a descriptive statement if one does not yet exist.

Al-Qinai (2006, p. 49) claims that the relatively high illiteracy rate in the Arabic-speaking world may impede the development of native acronyms in this regard. The tendency of native speakers is to become comprehensible by eliminating opaque abbreviations. Because the Arab world gets most of its advanced technology from the West, nations of origin are given titles and abbreviations.

When translating documents from English, Hlongwani (2012) noted several challenges that translators experience. Among these were inconsistencies in word-for-word translation, equivalents, excessive transliteration, and converting words from English without changing the grammar and terms with no equivalence.

2.5. Translation strategies

Abbreviation translation strategies in various languages have been extensively researched, revealing a generally universal nature of their translation. The standard and palpable principle of abbreviation translation is required to achieve equivalent abbreviations in SL and TL. Several translation strategies can be used to achieve this principle. The first strategy is replacing an abridgement of a SL with an equivalent abridgement of a TL. The second strategy is adopting the abbreviation of a SL and using it in the TL via equivalents. This strategy aims to translate alphabetic-numeric abbreviations, which are part of some indexing systems and specifications. The third strategy aims at the translation of abbreviations utilising the transliteration method. The fourth strategy is the translation of abbreviations using the transcription method. Derivation of a new abridgement is recommended only when the translator closely collaborates with specialists and has good reasons to rule out all strategies of abbreviation translation mentioned

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above. Thus, translation strategies presented above can be divided into two large groups, depending on the method in question, i.e., normalisation and explication.

Kuzmina et al. (2015, p. 552-553) suggested the following as the main strategies for conveying the foreign abbreviation.

1. Transference. The substitution of a foreign abbreviation for an equivalent abbreviation. This strategy assumes such abbreviation is found in the TL and is most commonly used to translate scientific and technical texts, particularly for the transference of abbreviation definitions for various physical qualities, units of measurement, etc.

2. Borrowing. Foreign abbreviations, mostly words with Latin roots, are borrowed. This strategy is relatively uncommon and is primarily used to transfer abbreviations that are part of any symbol system.

3. Transliteration. This strategy is primarily used to provide proper names in the TL.

4. Transcription. This strategy provides abbreviations in the TL that do not have a correlative form.

5. Descriptive translation. This strategy is used with no equivalent abbreviation in the TL.

2.6. Standardisation of medical abbreviations and acronyms

Scarpa (2020) defines consistency as the uniformity of style and language across all textual components of a product and all products produced by the same company. The usability (how well a text functions in its intended context) and readability (how straightforward a text is to read in terms of its formal qualities) of a technical document are both improved by consistency (argumentation pattern, sentence and word length, word choice, proportion of complex words, active vs passive voice). Macklovitch's (1995) terminological consistency means that *'each terminological unit should receive the*

same translation throughout the final text so that readers are not unduly confused' (Macklovitch's, 1995, p. 1). That terminological consistency is generally accepted as being one property of a good translation.

Abbreviations serve a practical purpose, such as concisely using words in a limited space or avoiding spelling errors. Their use, on the other hand, can come at a high cost. Abbreviations are sometimes misunderstood, misread, or misinterpreted. Their use lengthens the time it takes to train healthcare professionals, wastes time trying to figure out what they mean, occasionally disrupts patient care, and occasionally puts patients at risk.

According to Peate (2013), abbreviations and acronyms can be used efficiently as the documentation style, particularly if the meanings are understood by people using them. They can be described as being archaic, ambiguous, and inducing errors when not used precisely. The reason for using them globally in healthcare is about patients' safety and health issues. Misinterpretation of abbreviations and acronyms could lead to healthcare errors because of obscurity and unfamiliarity. However, they save time, especially in an emergency. In ER, for instance, visual signs are taken where abbreviations such as BP are for blood pressure, T for temperature, R for respiration, etc. Standardisation, which allows users of the TL content to communicate successfully, is one of the most crucial features of technical translation (Sarairoh, 2001, p. 35). Consistency in the signifier-signified method of correspondence is required to maintain required standards.

Medical facilities around the world are required to provide standardised abbreviations and acronyms for use in medical settings. The standardisation process includes identifying accepted abbreviations and acronyms and then informing and providing access to the list of these approved abbreviations to employees. In cases where the facility accepts more than definitions, the list will be updated regularly. Some local abbreviations and acronyms, however, are unique. Doctors use standardised abbreviations when writing in patients' charts, but it is risky to use abbreviations and acronyms when writing reports, especially if they are not standardised (Durham, 2008).

3. MATERIAL AND METHODS

This study aims to investigate the inconsistencies between English and Arabic acronyms and abbreviations. The data was gathered from medical documents used by medical professionals in clinical settings lead-

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ing to the discovery of 18 medical acronyms and abbreviations. Such documents were leveraged as study material to reflect on discussion topics because they are frequently utilized in medical settings. For translators, especially those with a degree in translation and interpretation, translating these items has already proven challenging. All translators who intend to work in the medical field must have background knowledge, have taken a minimum of introductory translation courses, and have a broad understanding of the subject. In addition, they need to have knowledge of translation theory and practice in specialised translation, such as medical translation. The study explored the abbreviations and acronyms in these documents to investigate the possibility of finding the exact equivalent for the multi-meanings of acronyms and abbreviations.

4. DATA ANALYSIS

The present study attempts to highlight the possibility of translating multiple abbreviations and acronyms from English into Arabic. It investigates the phenomenon of the inconsistency of abbreviations and acronyms when translating them from English into Arabic. Moreover, the study deals with the expected multiplicity of versions of the meaning of medical terms, abbreviations, and acronyms. The study attributes the inconsistency to the multiple meanings of abbreviations or acronyms in the source and target languages. Due to the inconsistency and multiplicity of the meaning of these medical items, translators may encounter barriers due to multiple equivalents in the source and target languages.

Table 2 demonstrates the multiplicity and inconsistency which may result in erroneous translation to the medical, pharmaceutical, and healthcare abbreviations and acronyms.

Table 2
 Multiple meanings of medical abbreviations/acronyms and translation

ABBREVIATION/ACRONYM	MEANING	TRANSLATION
MRI	magnetic resonance imaging	<i>alrrnin almighantisi</i>
MRI	medical records information	<i>maeakum altibiya</i>
MRI	medical research institute	<i>maeahid albuhuth altibiya</i>
ECT	electroconvulsive therapy	<i>eilaj bialsadmat alkahrabaiya</i>
ECT	enteric-coated tablet	<i>al'aqras almughalafa</i>
ECT	euglobulin clot test	<i>aikhtibar jaltat al'uwjlubulin</i>
CP	chest pain	<i>'alam sadar</i>
CP	cerebral palsy	<i>alshalal aldimaghiu</i>
HA	headache	<i>sudae</i>
HA	haemolytic anaemia	<i>faqr aldam al'anhilaliu</i>
IRF	impaired renal function	<i>aikhtilal wazayif alkulaa</i>
IRF	improvement in renal function	<i>fi wazayif alkulaa</i>
ABA	ambulatory blood pressure	<i>daght aldam almutanaqil</i>
ABA	arterial blood pressure	<i>daght aldam alshiryanii</i>
LFD	lactose free diet	<i>nizam khali min allaaktuz alghidhayiyi</i>
LFD	low-fat diet	<i>nizam ghidhayiyun munkhafid alduhun</i>
LFD	low-fibre diet	<i>nizam al'alyaf alghidhayiya</i>
D/C	discontinue/discharge	<i>khuruj/tawaqaf</i>

5. RESULTS AND DISCUSSION

The list of 18 abbreviations and acronyms discussed in the study demonstrates a multiplicity of meanings in abbreviations and acronyms in both the source and target languages. The multiplicity is due to the abbreviations and acronyms used by practitioners to mean different medical terms and concepts in the source language.

For instance, each abbreviation has three SL and TL versions, which are MRI, ECT, IRF, ABA, and ELFD, respectively. In the TL as well, these could have at least two or more meanings and equivalents. As a result, translators may encounter perplexity which frequently challenges their translation. Because abbreviations are

frequently utilised in multiple medical contexts, it can be arduous to determine the intended meanings. The remaining abbreviations and acronyms, on the other hand, have two designations, resulting in inconsistency. The consequences would be serious if the translator ignored the multiplicity of designations.

In the first group of abbreviations, MRI, has multiple meanings and is frequently translated with multiple versions such as *altaswir bialranin almighnatisii* and sometimes as *alsijilaat altibiya* and *maeahid albuhuth altibiya*.

In the second group of abbreviations, ECT, has shown multiplicity as it has three meanings – electroconvulsive therapy, enteric-coated tablet and euglobu-

lin clot test – which are translated as *al'aqras almughalafa*, *eilaj bialsadmat alkahrabaiya* and *aikhtibar jaltat al'uwjlubulin*, respectively.

Translators are often expected to experience confusion due to the multiplicity of versions and hence inconsistency. In the medical report, the translators expected to find CP which stands for either chest pain or cerebral palsy which are translated into '*alam bialsadr*' and '*alshalal aldimaghiu*' as practitioners have used it to bear two meanings. If the translator swapped the first meaning for the second, they may have an inaccurate translation.

The abbreviation HA may commonly mean headache (*sudae*), however, it is often confused with hemolytic anemia (*fqr aldam alianhilaliu*).

The abbreviation IRF stands for impaired renal function and improvement in renal function which has to do with kidneys and often translated as *aikhtilal wazayif alkulaa* and *tahasun wazayif alkulaa*. Confusion is expected in case the translator erroneously translated the first meaning by the second one.

In three initial abbreviations, such as ABA, which stands for ambulatory blood pressure and arterial blood pressure, multi-version translation is indispensable. Thus, ABA was translated inconsistently as *daght aldam almutanaqil* and *daght aldam alshiryani*.

LFD has three meanings which include a lactose-free diet, low-fat diet, and low-fibre diet. These meanings can produce diversity of equivalents such as *nizam ghidhayiyun munkhafid alduhun*, *nizam ghidhayiyun khali min allaaktuz*, and *nizam ghidhayiyun munkhafid al'alyaf*, respectively.

Finally, in cases where D/C is rendered as 'discontinue' (*tawaqaf*) when the intended meaning is 'discharge' (*khuruj*), the result will be disastrous. Should D/C (intended to mean 'discharge') be misconstrued as 'discontinue' because it is preceded by a list of prescriptions, the patient's medications can end up prematurely stopped.

In a nutshell, abbreviations and acronyms are expected to have a multiplicity of meaning in the SL and inconsistency of versions in the TL because some are global and official. In contrast, others are local and unofficial and commonly used by local medical practitioners. This may result in inaccuracy of translation, and disastrous consequences can be expected. Therefore, medical translators should have awareness of and training in translating medical abbreviations and acronyms into the TL without distorting it. Moreover, dealing with abbreviations can be problematic if the

target audience requires unofficial rendering because formal abbreviations are complicated and cannot be understood by laypersons. Besides, translators are expected to encounter the untranslatability of medical terms, acronyms, and abbreviations into local ones. Thus, the problem is amalgamated, and a multiplicity of versions for one acronym is expected in the TL. The researcher includes that in the findings of the research.

6. FINDINGS

Study results show that consistency is a significant aspect of medical texts. Medical abbreviations and acronyms can be hard to translate when documents show inconsistency and multiplicity of meanings. In the case of inconsistency in the source and target languages, it is not easy to choose the proper and the accurate option in translation. Errors are expected and could be critical if the translator could not produce the correct version. For instance, an inadequate translation of ECT can have severe consequences if the inconsistency of the abbreviation is not considered. The first meaning is the *euglobulin clot test* and the second is *enteric-coated tablet*. Abbreviations with two initials and three initials are too many and can pose inconsistency compared with abbreviations with more initials. Acronyms cause fewer problems compared to abbreviations. Single-initial abbreviations are too many and can be problematic as well. For instance, P can stand for *pulse* or *pressure*. Some abbreviations and acronyms are standardised and are likely to be less problematic. At the same time, unstandardised ones are likely to cause severe problems, and sometimes they are untranslatable because of multiplicity, inconsistency, and even non-existence in the TL. According to the study, the main source of inconsistency of abbreviations and acronyms is non-standardisation of these items in the source and target languages in addition to multiplicity of meanings of abbreviations and acronyms because of different origins of the terms. The inconsistency affects the accuracy of translation in medical settings which may result in serious consequences. The best way to handle the problem of inconsistency is to familiarise the translator through translation training courses to deal with confusing acronyms and abbreviations.

7. CONCLUSION

The current study examined the inconsistencies in the translation of medical acronyms and abbreviations from English to Arabic. It focused on the primary difficulties that hampered the accuracy of translating these

abbreviations into Arabic, namely the abbreviations' multiple meanings and inconsistencies. The study focused on 18 medical acronyms and abbreviations to examine the multiplicity, inconsistency, and possibility of translating medical acronyms into Arabic. These medical acronyms and abbreviations were categorised according to their frequency of use in a medical context and examined to assess whether their translation could cause problems.

The study examined the possibility and the ease of converting these elements through the equivalents found in the target language from the available resources in the field of medicine. The study has found that acronyms are hard to translate because of the multiplicity of meanings and inconsistency, and their equivalents for most of them in Arabic are changing and not available due to multi-versions in the source language. The study concluded that inconsistency is one of the barriers impeding translation accuracy and can be solved by standardising medical abbreviations and acronyms in the source and target languages. The

research also stresses the importance of the translator's awareness of acronyms and other medical terminologies commonly used by medical practitioners. It suggests that abbreviations should be rendered in full words instead and according to the intended meaning based on different contexts.

According to the findings of this study, a translator should do the following to reduce the problem of abbreviation multiplicity and inconsistency in medical contexts: (1) create a list of standard abbreviations and acronyms used by medical practitioners in hospitals to be accredited as standardised by medical corps and health organisations; (2) circulate lists of acronyms and abbreviations to the exclusive use to avoid inconsistency; (3) experts should translate documents that include acronyms in hospitals to be a model for translators who intend to render acronyms and abbreviations in other contexts; (4) raise the awareness of practitioners of the proper translation by using a dos and don'ts list; (5) at all times consider the function and context of translation.

References

- Aarts, B., McMahon, A., & Hinrichs, L. (Eds.). (2020). *The handbook of English linguistics* (2nd ed.). Wiley-Blackwell.
- Albin, V. (1999). Handling Greek and Latin terms in Spanish medical translation. *Translation Journal*, 3(3). <https://translationjournal.net/journal/09medic.htm>
- Al-Qinai, J. (2006, September). The Arab Organization for Education, Culture and Science (ALECSO). In *Proceedings of the 4th International Contrastive Linguistics Conference Studies in Contrastive Linguistics* (pp. 45-50). University of Santiago de Compostela Press.
- Alsulaiman, A., Allaithy, A., & Warburton, K. (2019). *Handbook of terminology: Terminology in the Arab world*. John Benjamin's.
- Appleby, K. S., & Tarver, J. (2006). *Medical records review*. Wolters Kluwer.
- Byrne, J. (2014). *Scientific and technical translation explained: A nuts and bolts guide for beginners*. Routledge.
- Crystal, D. (2004). English word classes. In B. Aarts, D. Denison, E. Keizer, & G. Popova (Eds.), *Fuzzy grammar: A reader* (pp. 191-211). Oxford University Press.
- Davis, N. M. (2020). Medical abbreviations with multiple meanings: A prescription for disaster. *Medical Writing*, 29(4), 16-19.
- Durham, L. (2008). *Administrative medical assisting* (2nd ed.). Wolters Kluwer, Lippincott Williams & Wilkins.
- Ehrlich, A., & Schroeder, C. (2009). *Medical terminology for health professions* (6th ed.). Cengage Learning.
- Ehrlich, A., & Schroeder, C. L. (2014). *Introduction to medical terminology*. Cengage Learning.
- Farghal, M. (2000). The training of student translators. *Journal of Translation Studies*, 9(1), 39-49.
- Gobet, A., & Rega, P. (2022). Gained in translation. Classical languages: Possible teaching strategies. *Medical Writing*, 31(2), 188-120.
- González-Davies, M. (2014). Towards a plurilingual development paradigm: from spontaneous to informed use of translation in additional language learning. *The Interpreter and Translator Trainer*, 8(1), 8-31. <https://dx.doi.org/10.1080/1750399X.2014.908555>
- Herget, K., & Alegre, T. (2009). Translation of medical terms. *Translation Journal*, 13(3). <https://translationjournal.net/journal/49medical1.htm>

- Hlongwani, G. J. (2012). *An analysis of the challenges with respect to attaining equivalence in translation of literature pertaining to sexually transmitted diseases from English into Xitsonga*. University of Cape Town Press.
- Izura, C., & Playfoot, D. (2012). A normative study of acronyms and acronym naming. *Behavior Research Methods*, 44(3), 862-889. <https://doi.org/10.3758/s13428-011-0175-8>
- John, H. (2005). *Greek and Latin in medical terminology*. Lippincott Williams & Wilkins.
- Kafi, A. (1991). *Abbreviations in Persian*. Danesh Publications.
- Kamil, D. F., & Hazem, A. H. (2019). A Syntactic-semantic study of negative particles in Arabic literary discourse with reference to translation. *SSRN Electronic Journal*, 3(10), 327-341. <http://dx.doi.org/10.2139/ssrn.3881846>
- Kasprovicz, M. (2010). Handling abbreviations and acronyms in medical translation. *Translation Journal*, 14(2). <https://translationjournal.net/journal/52abbreviations.htm>
- Kuzmina, O. D., Fominykh, A. D., & Abrosimova, N. A. (2015). Problems of the English abbreviations in medical translation. *Procedia – Social and Behavioral Sciences*, 199, 548-554. <https://doi.org/10.1016/j.sbspro.2015.07.545>
- Macklovitch, E. (1995). Can terminological consistency be validated automatically? In *Proceedings of the 4th Lexicography and Dictionaries Research Conference* (pp. 28-30). Aupelf-Uref.
- Montalt, V., & González-Davies, M. (2014). *Medical translation step by step: Learning by drafting*. Routledge.
- Moris, D. (2020). Abbreviations in medical writings: Do they also abbreviate our science? *Journal of the Balkan Union of Oncology*, 25(3), 1274-1276.
- Newmark, P. (1981). *Approaches to translation*. Pergamum Press.
- Newmark, P. (1988). Pragmatic translation and literalism. *TTR: Traduction, Terminologie, Rédaction*, 1(2), 133-145. <https://dx.doi.org/10.7202/037027AR>
- Pan, Y. (2021). A corpus-based analysis of trainee translators' performance in medical translation. *Asia Pacific Translation and Intercultural Studies*, 8(3), 267-285. <https://dx.doi.org/10.1080/23306343.2021.2004719>
- Peate, I. (2013). *The student nurse toolkit: An essential guide for surviving your course*. John Wiley & Sons.
- Sarairoh, M. A. (2001). Inconsistency in technical terminology: A problem for standardization in Arabic. *Babel*, 47(1), 10-21. <https://dx.doi.org/10.1075/babel.47.1.03sar>
- Scarpa, F. (2020). *Research and professional practice in specialised translation*. Springer Nature.
- Shuhan, M., Jabar, M. A. B. A., & Fang, N. C. (2022). semantic challenges caused by abbreviations of arabic economic and business terms for undergraduates in China. *International Journal of Academic Research in Progressive Education and Development*, 11(1), 120-133. <https://doi.org/10.6007/ijarped/v11-i1/11937>
- Spinello, S. (2001). *The history of medical terminology*. Routledge.
- Yule, G. (2010). *The study of language* (4th ed.). Cambridge University Press.

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