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Norms of Translating Medical Terms in English Patient Information Leaflets into Kurdish

Kazi Hassan Saleh[1] - Nishteman Abdukareem Saed[2]

kazi.saleh@charmouniversity.org - nishteman.saeed@charmouniversity.org

[1+2]English Department, College of Education, Charmo University, Chamchamal, Kurdistan Region, Iraq.

1 Abstract

Patient Information Leaflets (PILs) are documents included in medicine packages and provide important information about the medication for patients. This study investigates the translation problems of English PILs into Sorani Kurdish. The aim of this study is to identify the translation procedures used for translating medical terminologies in PILs for lay people. It also aims to reveal which translational norms are operating in Kurdish translations of PILs. To do so, the study employs a corpus of 150 English PILs along with their Kurdish translations. To analyse the corpus, the researcher adopts Toury's (1995-2012) three-phase methodology within the descriptive approach of translation. It also uses Vinay and Darbelnet's (1995) translation procedures to determine how translators handled terminological rendering in the Kurdish PILs. According to the findings, nine types of translation procedures were used in translating the terminologies, with borrowing had the highest frequency, and modulation having the lowest frequency. They also revealed that Toury's initial norms were predominantly operating in the translated PILs which labelled them as adequate translations. The translators' choice to closely follow the original PILs was indicative of their attempt to meet the expectations of PILs's target users, thus, revealing Chesterman's expectancy norms therein. The study concludes that the translation of PILs into Kurdish is not regulated within the medical field and that is mainly related to the absence of an officially regulated body in the Kurdistan Region of Iraq. It also concludes that while the seemingly established norm of PIL translation into Kurdish highly

relies on English borrowings, it is a significant step towards developing Kurdish medical language.

2 Keywords: Kurdish for Medical Purposes, PIL, Lay People, Translation Procedures, Norms.

3 Introduction

The significance of translation stems from its use in various aspects of modern life. Translation has always played an important role in the interaction between languages and nations (Munday, 2014, p. 163). While this role is evident in all disciplines, it is more considerable within the field of medicine. The language of medicine, like any other scientific branches, has its features and terminologies that have evolved throughout time (Wermuth and Verplaetse, 2019, p. 83). One of the main users of the language of medicine is patients. They need clarity and adequate information to make informed decisions regarding the options of taking a particular medicine. The need for information to patients stems not just from patients' demands, but also mainly from a social effort to involve individuals in their health (Jensen, 2012, p.237). One of the most important genres that require translation to achieve public health communication is the patient information leaflet (PIL). It was first appeared as a legal genre in 1992 and was completely accepted in 1999 (Council of the European Communities, 1992). A drug leaflet is a detailed explanation of a pharmaceutical product that includes important and sensitive information regarding the medicine's composition, uses, dosage, and side effects. Hasan (2019, p. 76) says that the importance of translating drug leaflets stems from the fact that even minor errors can have extremely serious consequences, including the patient's life.

Kurdistan, as a developing region of Iraq, is a consumer of pharmacy products from other countries. Almost every type of medicine can be accessed there and obtained without a doctor's prescription. If patients receive medicine without the consultation of a physician, they should decide for themselves or with the pharmaceutical assistant, which drug is appropriate for their condition. Therefore, translation of PIL should not be ignored for the safety of patients and public health, since patients will depend upon this information to make informed decisions regarding the safe and effective use of the medications they consume. Currently two large local pharmaceutical companies produce various medicinal products. They are based in Sulaymaniyah and Erbil. Their products are sold throughout Kurdistan and Iraq, and as such, to ensure that their PILs are understood easily by Kurds and Arabs consumers alike, the companies provide them in three versions: English, and their translation into Sorani Kurdish and Arabic.

3.1 Research Questions

This study sets out to identify translation procedures used in the translation of English PILs into Sorani Kurdish. It also seeks to reveal which translation norms are potentially operating in those translated PILs. To do so, it attempts to find answers to two main questions. First, it wants to find out which translation procedures are used to translate English medical terms into Kurdish lay terms. Second, it asks whether the PILs' translators follow any specific norms in their products while translating PILs into their native language.

3.2 Significance of the study

In recent years, there has been an increasing interest in the significance of health communication and interaction with general people in particular (Jesnsen, 2012, p. 237). Thornicroft et al. (2011) think that conveying the knowledge from biomedical discoveries to patients and the public has become necessary, although there is a shortage of conceptual clarity regarding the accurate structure of the translational continuum phases required to execute this. Patients need the information to decide whether to take the medicine or not. PIL is a new genre in Kurdish and there is a gap in Kurdish literature concerning PIL, and more specifically in terms of translation, which is the focus of this investigation. Therefore, this study would be the first academic study to investigate the problem of translating English PILs into Kurdish as well as to describe the characteristics of Kurdish medical terminology for non-specialised readers and/or users.

4 Literature Review

Despite living in a society where information is readily available, many individuals rely exclusively on the PIL as their source of information about their medications. It is worth noting that the PIL has been provided with all medications since 1999 (Medicines and Healthcare Products Regulatory Agency, 2005 p.1). Within the field of medicine and pharmaceutical industry, PILs have been defined as the box that contains the medication and include an internal leaflet that contains instructions for using the medication. The Medicines and Healthcare Products Regulatory Agency (2005, P. 8) notes that the mandatory patient information leaflets, which have been required to be supplied with all medicines since 1999, are the major or the only source of information regarding medicine for many patients. These provide patients with the essential information they need to use medications safely and effectively. Drug companies issue PILs in line with the regulations of each country's drug regulatory agencies. In the European countries, PIL should comply

with the European Medicinal Agency as well as the Food and Drug Administration (FDA), the latter is the regulatory agency in the United States (Montalt and Davies, 2014, p.82). However, in Iraq, the Ministry of Health regulates medicines through four directorates: Technical Affairs, the State Company for Marketing Drugs and Medical Appliances (KIMADIA), Public Health, and Inspection. The Directorate of Technical Affairs is the primary regulatory body for medicines. In contrast, the Kurdistan Medical Control Agency (KMCA), which is part of the Ministry of Health in the Kurdistan Region of Iraq, is responsible for regulating the pharmaceuticals as well as approving and marketing medicine and medical devices in the region.

Montalt and Davies (2014, p. 82) point out that PILs are simplified forms of the Summary of Product Characteristics (SPC), which are intended for manufacturing experts. The SPC is typically much longer and more complicated. According to the European Commission, the content of package leaflets must comply with the SPC and be prepared so that non-specialists could understand it. Mainly, the English version is produced first, as it should be submitted first in the marketing authorization process. Hence, the majority of PILs are translations of the English source text (ST) (Jensen, 2013, p. 30). According to Jakobson (1959 ; 2012, p. 141), the process of transferring SPC to PIL is an intralingual translation since it is within the same language, English and it involves a shift in the recipient group from experts to the layman. Non-English language PILs are therefore the result of both an intralingual and an interlingual translation process. It is possible that issues may arise when English PILs are subsequently translated into all other languages. It has been argued that the original PIL producer's expert position and lack of language competency may have a detrimental impact on the complexity of the PIL due to information imbalance between the senders (the experts) and the receivers (lay people) (Jensen, 2013 p. 31).

In Iraq, the Registrations Department in the Directorate of Technical Affairs in the Ministry of Health is in charge of the registration (marketing authorisation) of private and public pharmaceutical companies and medical products, and also arranging and setting instructions for PILs. PILs are mandatory in Iraq. On March 28, 2002, a decision was issued in which pharmaceutical companies were required to include PILs inside medicine packages as well as, provide information on the outer packs, and the outer label without any reference to translating them. After 2003, new regulations were issued regarding drug registration; however, the exact year of their release is unknown. These regulations were updated in 2017, and they are still in effect. For the English version of PILs, Iraq follows

the British National Formulary 72 (BNF 72) (Ministry of health Iraq, personal communication, 29 May, 2022). A National Health Policy (NHP) did not exist in Iraq until 2015 (Al-Jumaili, 2020, p:10). In Paragraph F/ 24 of these instructions, local pharmaceutical companies are required to write PILs in English and translate them into Arabic. International pharmaceutical companies should translate PILs into English and Arabic if their origin is not English. However, the instructions do not mind if the drug companies translating PILs into other languages.

It is worth mentioning, in this context; that although the Iraqi Constitution recognizes Kurdish as one of the official languages of the country alongside Arabic (Constitution of Iraq, 2005, p. 4), PILs are only translated into Kurdish in predominantly Kurdish areas such as the provinces of Sulaimani and Erbil. However, this study does not investigate this matter because it is outside its scope. It is interestingly important here to point out that Kurdish translation of PILs is not officially required, but there are two pharmaceutical companies in Iraqi Kurdistan that translate their PILs into Kurdish in addition to Arabic. Personal communication with a few staff members of the two companies indicated that their choice to do so is for marketing purposes as well as improving Kurdish in the field of pharmaceutical industry.

During the past thirty years, much more information has become available on PILs, for patients, they are valuable sources of information. PILs have received great attention in research in terms of their language; terminology, syntax, stylistic features, as well as their translations. Several studies (Jensen, 2013; Jensen and Zethsen, 2012; Azari and Halimi, 2019; Azari et al., 2018) have attempted to explain the reason for the complexity in PILs. Regarding the procedures of translating English patient information, two studies have been carried out. One of them is conducted by Rahmawati et al. (2019) between English and Bahasa Indonesia. The study's objectives were to identify the different kinds of translation procedures used in PILs, to describe how these procedures were carried out, and to provide an explanation for why specific translation procedures were used in patient information leaflets. They analysed the data based on Vinay and Darbelnet’s (1995) theory. The other study was conducted by Sharkas (2019), investigates the use of translation methods used in Arabic translations of medical patient information leaflets. She notes that it is difficult to read and translate PILs for linguistic reasons. The study focuses on medical terminologies used in PILs. It revealed that more than 65% of the terms were translated directly. Her study depends on the source language oriented method, without including any

explanation or clarification of the term or the use of terms that are more common with the general public. She explains that although this tendency in translation indicates the translator's concern for scientific accuracy, it ignores the primary goal of pharmaceutical leaflets, which is to make them easy to read and comprehend by the end users.

The above review was to look at the available literature on previous studies and investigations carried out on PILs and their translations in other language pairs. However, it is unfortunate that the literature lacks academic studies concerning the translation of PILs into Kurdish. Therefore, the current study is an attempt to investigate medical language for lay people based on Toury's (1995-2012) three-phase methodology proposed within the framework of descriptive approach of translation.

4.1Structure of PILs

PILs have different names, such as information leaflets, package insert, patient package insert, and consumer medicine information (Montalt and Davies, 2014, p. 82). According to Montalt and Davies, PIL is a document included in a pharmaceutical medication's sales package that should be translated into the official language(s) of the country in which it is marketed.

The content and structure of PILs are influenced by several laws and standards that control them and have changed over time and, thus, have not stayed constant. The structure can be different from one agency to another. The pharmaceutical companies in Iraq follow the structure provided by the Iraqi Ministry of Health. According to the Drug Registration Regulation (F/ 24, 2011) by the Registration Department in Bagdad, the structure of PILs should include the following: trade name and generic name, strengthen, name quantity of active ingredient, name and quantity of an inactive ingredient, dosage form, the rout of administration, dosing information, manufacturers name and address, cautions, precautions, drug interactions, indications, side effects, and storage conditions. The Iraqi Ministry of Health does not have a standardised template; the pharmaceutical companies design the PIL that includes all aforementioned elements.

4.2 The Language of PILs

The need for using suitable language in health information materials for the target reader is evident since patients and other related lay readers must be educated in ways that enable correct interpretation and understanding, as well as treatment adherence. PILs are extracted

from the more specialised SPCs documents, which include all necessary information and evidence for particular drugs (Wermuth and Verplaetse, 2019, P. 98). Since they communicate with patients in broad words and the readers are general people, PILs use a mixture of LGP and LSP terminology. PILs are often characterised as a scientific text due to their classification as a medical text, and the outcome of their translation is regarded as a scientific translation (Rahmawati *et al.,* 2019, p. 147). Nevertheless, based on Pedersen and Halliday's (2009, p. 36) view, the language used in PILs is considered a technical language since it is straightforward and concise, and it informs consumers on how to administer medications. However, according to Bongaarts (2009, p. 15), PILs may be considered instructive medical texts. This is also considered in the translation of the PILs. This study considers the terminological aspects of the translated PILs into Kurdish. It is worthwhile to point out here that the translated PILs are considered the first attempt to kurdify PILs since Kurdish had never been used in the PILs previously.

5 Methodology

This study investigates the translations of English PILs into Kurdish. The purpose of this study is to determine the procedures of translation that are used by Sorani Kurdish medical translators. The corpus of the study is made up of 150 PILs from Pioneer and Awa medical pharmaceutical companies in the Iraqi Kurdistan Region. The PILs are translated intralingually from SPCs and then interlingually from English into Arabic and Kurdish, however the Arabic translations are excluded because they are not our concern in this study. The study employs Toury's (1995-2012) three-phase methodology to analyse the data. The analysis involves a comparison of ST-TT coupled pairs at the terminological level to identify any translation procedures, which were used for the translation of English PILs into Kurdish medical translators, based on the strategies and procedures proposed by Vinay and Darbelnet (1995). The results will indicate which translation procedures are used, on the basis on which, it will be possible to identify the normative behaviour of PIL translations into Kurdish. This, in effect, will give us an insight into any prevailing patterns in the PILs, and that will reveal potential translation norms operating in the translated PILs into Kurdish. The generalization can also provide a ground on which we can decide whether the translated PILs are adequate or acceptable.

6 Findings

The main aim of this study was to identify the procedures for translating medical terminologies for lay people and the translation norms more prevalent in translated English

PILs into Kurdish. Vinay and Darbelnet (1995) suggest two primary translation strategies: direct and oblique translation, and seven procedures. Within the seven primary procedures, they provide a number of different supplemental translation procedures.

The results of the data analysis showed that there were nine types of translation procedures used in translating the PILs, including borrowing, calque, explicitation, literal translation, amplification, transposition, economy, generalisation, and modulation. The translation procedures were determined by mapping the ST terms to their counterparts items in the TT. The translation procedures that are used for translating medical terms for non-specialised in the PILs in accordance to their occurrence in the TTs were shown in the table below. The total number of translated terms and phrases is 3011 cases, they are not restricted to the translation of medical terms, but the translations of abbreviations, acronyms, and eponyms are also included. Overall, 4.91% (148) of the procedures consist of the translation of acronyms and abbreviations while 0.7% (26) covers the translation of eponyms.

Table 6.1 Frequency and percentage of translation procedures in the TTs

Translation procedure	Frequency of translation procedure	Percentage of translation procedure
Borrowing	1008	33.5%
Calque	616	20.5%
Explicitation	429	14.2%
Literal Translation	385	12.8%
Amplification	261	8.7%
Transposition	202	6.7%
Economy	85	2.8%
Generalization	21	0.7%
Modulation	4	0.1%
Total	3011	100%

The data analysis revealed that the following translation procedures were employed in the translation of English PILs into Kurdish:

6.1 Borrowing

Borrowing is regarded as the simplest of all procedures since it essentially involves transferring the source language (SL) term directly to the target language (TL) (Vinay and Darbelnet, 1995, p. 31-32). According to Chesterman (1997, p. 92), this procedure includes not only the borrowing of individual elements but also the borrowing of a phrase as a whole.

In comparison to other procedures, the data has revealed that borrowing is the predominant procedure used for translating medical terms. As table 6.1 shows, borrowing is the most frequently used procedure for translating English medical terms in PILs, making up 33.5% (1008) of all occurrences of translation procedures in the corpus of the study. Furthermore, it is also important to note that the data include borrowings from both English and Arabic. The terms that were borrowed from English account for 976 (96.8%) of the total cases. English borrowing has two types: direct and indirect borrowings. The data showed that 970 (96.2%) of the identified cases were directly borrowed from English, and only 6 (0.6%) cases were indirectly borrowed from English. An example of this is *blister* translated as شیت (BT: sheet) in the TTs.

Borrowing has also occurred from Arabic. The results of the data analysis showed that 32 (3.1%) cases were borrowings from Arabic. Arabic borrowing also has two types: direct and indirect borrowings. From the 32 (3.1%) cases that were borrowed from Arabic, 28 cases (2.8%) were borrowed directly, for instance, *migraine* is translated as شقیقه (BT: migraine) in the TTs. The other four (0.4%) cases were indirect borrowings, for instance, *tension* translated as قەلەقی (BT: anxiety). They possibly occurred due to the social and geographical connection between the two languages (Öpengin, 2020, 461), in this case Arabic and Kurdish.

6.2 Calque

A calque is a kind of borrowing, an expression from the SL is borrowed literally into the TL. There are two types of calque, a lexical calque introduces a new form of expression while retaining the structure of the target language, and a structural calque brings a new sentence construction to the TT (Vinay and Darbelnet, 1995, p. 32). Table 6.1 shows that 20.5% (616) of the identified cases in the TTs are calques. In contrast to borrowing, the data show that calque is the second most prevalent translation procedure for translating medical terminology for general people. Based on the data analysis 14.7% (443) is purely calque, whereas 4.8% (146) of the cases involve translation with another procedures as a couplets. A couplet refers to the use of two different translation strategies in conjunction with one another for managing the translation of a single term. They are especially prevalent for cultural terms (Newmark, 1988, p. 91). For instance, the translation of *Crohne disease* in the TT as نەخۆشی کرۆن (BT: Crohne disease), in this case the terms are partly literally translated and partly borrowed and transcribed in the TT.

6.3 Explicitation

Explicitation is a procedure of a stylistic translation that involves making explicit in the TL what appears to be implicit in the SL due to the fact that it is clear from either the context

or the circumstance (Vinay and Darbelnet, 1995, p. 342). Explicitation may occur in medical texts that are translated for non-specialists due to the necessity for lay-friendliness. In addition, it should be useful for better communication between specialists and patients (Jiménez-Crespo, 2015, p.343). In using explicitation, the information that is implicit in the STs is translated explicitly in the TT (Munday, 2016, p. 92). Analysis of the data shows that, explicitation is also a preferred translation procedure in the TTs. Approximately, 14.2% (429) of all identified cases in the TTs are explicitation. Explicitation is used in PILs for clarity and familiarity; for instance, *mucosal candidiasis* is translated as هەوکردنی دیواری ناوەوەی لەش بە هۆی کەڕوی کاندیدادەوە (BT: Inflammation of the inner wall of the body due to the fungus candidate). This case is translated using explicitation with an element of borrowing. Based on the data analysis, 7.8% (235) of the explicitation cases are couplets. In addition to these, 1.5% (47) consists of explicitation in the form double presentation. When both the SL term and the translation appear in the TT next to each other, it is called double presentation (Pym 1992, P. 73)**.** For instance, *migraine* is translated into میگرێین (ژانی لا سەر) in the TT, and so in this case the Kurdish explicitation in the TT is put in parentheses next to the transliteration of the English term *migraine*. As Pym explains, there are ideological implications to this procedure (ibid, p. 76). Sometimes the SL form is considered to be superior to the TL form (Newmark, 1988, P. 7). This is also true for the Kurdish medical language. One reason could be that the English medical language has more value than Kurdish because English is the language that is used for specialised medical training at university as well as medical publications in the academia in the Iraqi Kurdistan.

6.4 Literal translation

Literal translation, also known as word-for-word translation, is the process of directly transferring a ST from one language (SL) into another language (TL) while adhering to the grammatical and idiomatic conventions of the TL. In this type of translation, "the responsibility of the translators is confined to ensuring that the TL is adhered to in terms of its linguistic servitudes" (Vinay and Darbelnet, 1995, p. 33-34). As the data revealed, literal translation was also a preferred procedure as it accounted for 12.8% (385) of all the identified procedures. Among the literal translations, 1% (33) of the cases were couplets, for instance, the translation of *adrenal axis* as بەشی ئەدرینالّ (BT: adrenal axis) in the TT. In this case, the word *axis* is translated literally and the term *adrenal* is borrowed because it is not lexicalized in the TT. From those, 5% (20) of the cases are translated with transposition, for example, *drugs* are translated as دەرمان (BT: drug) in the TT.

6.5 Amplification

Amplification is the fifth most frequent translation strategy in the TTs according to their frequency of use and it accounts for 8.7% (261) of the whole identified cases. Amplification is used when expressing the same term or expression in the TL requires a greater number of words than the SL (Vinay and Darbelnet, 1995, p. 350). For example, *infant* is translated into منداڵی شیرخۆر (BT: breastfeed child) in the TTs. Amplification is a procedure that may be used to either fix a syntactic defect or emphasize the meaning of a term. In both circumstances, this is achieved by filling a gap in either the lexicon or the structure of the sentence (ibid, 192). According to the data analysis, the 261 of the cases that involve amplification in the data, 20 of the cases are couplets. For instance, *hepatobiliary disorders* is translated into تێکچونی جگەرو زراو (BT: Liver and bile disorder) in the TTs. In this case, *hepatobiliary* is translated by more words in the TT, and the term *disorders* translated by transposition and changed from plural to singular.

6.6 Transposition

Transposition refers to a procedure of translation that involves a change in the word class without a change in the meaning of the message (Vinay and Darbelnet, 1995, 36). According to Vinay and Darbelnet, the most frequent structural alteration carried out by translators could be a transposition. They mention at least nine different categories (ibid, P. 94), Among the procedures used to translate medical terms for non-specialised purposes in the PILs, transposition was the eighth common procedure. It represents 6.7% (202) of all the identified procedures. Table 6.2 shows the frequencies of the different types of transposition found in the corpus of the study. The types of transposition that identified in the data are: plural to singular, noun to verb, noun to adjective, singular to plural, adjective to noun, adjective to verb, gerund to noun, and noun to verb. An example for shifting from plural to singular is the translation of *blood fats* as چەوری خوێن (BT: blood fat) in the TT. In this case, the term *fats* has been changed from plural to singular. These cases are usually due to the difference between the syntactic features of English and Kurdish.

Table 6.2 Frequency and percentage of types of transposition

Type of Transposition	**Frequency**	**Percentage**
Plural to singular	170	84.2%
Singular to plural	15	7.4%
Adjective to infinitive	7	3.5%

Noun to infinitive	6	3.0%
Adjective to noun	2	1.0%
Noun to adjective	1	0.5%
Gerund to noun	1	0.5%
Total	202	100.0%

The other type of transposition involves a change from singular to plural. It accounts for 7.4% (15) of the whole transposition cases. For instance, *blood thinner* is translated as خوێن ڕونکەرەوەکان (BT: blood thinners) in the TT. The term *thinner* in this case changed from singular to plural. And also 3.5% (7) of the cases involve a change from adjective to infinitive, for example, *abnormal* is translated as تێکچون (BT: disorder) in the TT. In this case, the adjective *abnormal* changed to infinitive تێکچون. Besides, 3% (6) of the cases changed from noun to infinitive, for instance, the translation of weakness as بێهێزبون (BT: becoming weak). According to table 4.7, 1% (2) of the whole cases is a change from adjective to noun, for instance, *dermatologic* is translated in the TT as پێست (BT: skin). In this case, the adjective *dermatologic* changed into a noun. Moreover, the other type of transposition is a change from noun to adjective, it accounts for 0.5% (1) of the whole transposition cases, for instance, *Sedation* is translated into ئارامکەرەوە (BT: soothing) in the TT. The term *sedation* has been changed from a noun to an adjective in the TT. The last type of transposition according to the number of their occurrences involved a change from gerund to noun, for instance, the translation of *stinging* as چزو (BT:) in the TT. In this case, the gerund stinging changed into the noun چزو.

6.7 Economy

This procedure is the opposite of amplification. It occurs when the same ideas in the ST are translated by fewer words. It can be achieved by the reduction of the component signals either quantitatively or extensionally (Vinay and Darbelnet, 1995, p. 193). The data shows that there are 85 cases (2.8%) among the identified cases in the data. This is a small percentage compared to the other procedures. From that, 0.66% (20) of the cases consist of economy with other procedures, such as the translation of *thalassemia (a genetic disorder of red blood cells)* as تالاسیمیا (BT: thalassemia) in the TT, and so what is in the parentheses is not rendered in Kurdish.

6.8 Generalisation

Generalisation is yet another procedure that the translators used in the translation of English PILs into Kurdish. It is a procedure of translation in which a more general term is used to translate a more particular or concrete term (Vinay and Darbelnet, 1995, p. 343). The cases that require generalisation are few, which account for less than one per cent. There were 21 (0.6%) cases of generalisation in the overall corpus. According to data analysis, in 18 cases, generalisation is used alone while in two cases it is used with explicitation. For instance, the translation of *insects bite* as پێوەدانی گیانلەبەری بچوك (BT: Small living beings bites) in the TT. In this case, *insects* were translated into a more general term in Kurdish which is گیانلەبەر and *small* is given as an explicitation of *insects*. In another case, generalisation is used with borrowing; for example, *eclampsia* is translated as ئافرەتی دوگیان (ئێکلامپیسیا) (BT: pregnant woman (eclampsia)). In this case, *eclampsia* is translated to a more general term in the TT and it is also transcribed.

6.9 Modulation

Modulation can be achieved when the same source message is transferred with a different point of view by changing the form of the expression, which shows the differences in styles of thinking between the two languages (Vinay and Darbelnet, 1995, p. 36). For instance, the translation *for external use only* is translated as تەنها بۆ پێستە (BT: For skin only) in the TT. Modulation accounts for only 0.1% (4) of all translation cases in the data. Although modulation has a small percentage in the data, the use of this procedure is related to the nature of the PILs that are directed to general people, and this means the information therein should be clear and easy to understand by lay people.

7 Discussions

This section explains the findings of our analyses of the terminological elements of the English PILs that have been translated into Kurdish. In addition to this, it provides explanations for the translation choices made by medical translators by placing such decisions in the context of the norms that govern translation. The research findings are obtained from the data analysis. The data analysis revealed that 33.5% (1008) of the total number of 3011 translated instances of medical terminology into Kurdish consist of borrowing, giving it the highest frequency of all translation procedures used in the translated PILs.

One of the reasons for the prevalence of borrowing in the translation of these PILs from English into Kurdish could be that, these PILs have been translated by pharmacists, who are subject field experts in medicine and pharmacy, but they may not equally have language

or translation expertise. Another reason could be that the language of medicine including medical education, medical training, and medical instructions at medical universities and colleges, including the pharmacy colleges is English in Kurdistan (Saleh, 2016, p. 108). This has played a great role in borrowing English medical terms into the Kurdish medical language. Further to these, the Kurdish medical language might lack specialised terminology in the field of pharmacy; however, this field has not been investigated so far and thus, this remains a claim until the field is academically and scientifically explored and investigated.

Calque is the second most prevalent procedure in the translated PILs into Kurdish, which accounts for 616 cases (20.5%) of the corpus. Calque could be the best way to translate medical terminologies and phrases that do not have a direct equivalence in the TL. Since the PILs include medical terminology, pharmaceutical names, names of viruses and bacterium, etc., it might be the optimal procedure for translating standardised medical terms in PILs. The third preferred translation procedure based on the analysed data is explicitation. Explicitation could also be used to acquaint the reader with medical terminology, which may improve the lay reader's future interactions with medical experts. The translator may choose to explain the terms in a manner that is relevant to the text in which they occur, thus providing an explication may also help readability. In other words, information that is not found in the ST is included in the TT to make the PILs clearer for the general public. Therefore, explicitation is applied to provide a TT that is clear and understandable to the target reader.

Literal translation is the fourth most commonly used procedure according to its frequency. One explanation for this choice is that because these PILs are mostly translated by pharmacists, they may believe that literal translation is the most accurate translation procedure (Jensen, 2013), adhering to the source material and creating an exact and detailed TT while ensuring that no elements of the STs are removed. This is due to the sensitive nature of PILs and their ultimate objective. However, the EU Commission (2009, p. 22), states that patients may have difficulty understanding the PIL's contents if they are translated word-for-word from the original language. Accordingly, it is important that multiple language versions of the same PIL have faithful translations that allow for regional translation flexibility with conveying the same essential meaning of the message. On the other hand, literal translation may provide acceptable translations at the level of terminology, such as the translation of the word *disease* in the TT as نەخۆشی (BT: disease). That is to say, this choice may not be the best option all the time and so clarity should not be sacrificed at the expense of sameness.

Based on the data analysis, amplification is the fifth most prevalent procedure employed in the Kurdish PILs. The purpose of using amplification is to emphasize the meaning of a word or overcome a grammatical issue. It can be used to fill a lexical gap in the TL while preserving the integrity of the TL system. It is worth noting that Kurdish, by default, tends to use more words to express an idea, concept, or expression. Therefore, while the occurrence of amplification in our PILs is not commonly used compared to other procedures mentioned above, the choice to use it is related to the possibility that there are medical terms which do not have their one-to-one equivalence in Kurdish, or they cannot be rendered with only one word as they are in English. Thus, the translator opts for the use of more words in order to give the same message.

Another translation procedure identified in the translated PILs is transposition. According to the findings, transposition is used when the terms required a change in their grammatical structure or a change in their word class to get a natural sounding TT. This procedure is also used in situations where there are linguistic differences between the SL and the TL, and thus making literal translation difficult. Another common procedure after transposition is economy. Economy is used to make the TT versions shorter by cutting out some of the words and phrases from the ST version. Although PILs are the primary sources of information on medications, economy is used in the translated PILs where words or parts of them are left out. One reason behind using this procedure could be the length of sentences and paragraphs in the STs, because the translators had to consider the length of their TTs to meet the regulations. According to the report of the Committee on Safety of Medicines working group on PILs, the sentences should not be more than about 20 words (Medicines and Healthcare products Regulatory Agency, 2005, p. 99). Another reason could be related to the difficulty of the texts and the degrees of knowledge of the target audience, the translator may at some point determine that a certain word or phrase is too difficult for the consumers and decide to exclude it from the final translation. Besides, the use of economy may also improve the readability of the TT by omitting unnecessary words. However, the decision to reduce words might be triggered to the translator’s lack of the TL competence and, in effect, its stock of medical terminology, but we do not consider cases of translators’ incompetency as this topic is out of the scope of our study. Apart from this, sometimes one factor for economy is that the TL does not have any equivalence for the ST word, and the translator knows that omitting it will not affect the transferred message, and thus opts for omission. This choice in similar cases is justified based on Baker's (2018, p. 43) suggestion that “if the meaning conveyed by a particular item or expression is not vital enough to the development of the text to justify distracting the reader with lengthy explanations, translators can and often simply omit translating the word or expression in question.” Further to those procedures, generalisation is also used in translating English

PILs into Kurdish. The use of this procedure is related to the feature of PILs which contain LSP terms while they are produced for the general public. Thus, to deal with highly specialized terms and phrases that may be difficult for lay people to understand, generalisation is employed.

The above findings and discussions have answered the first question asked at the beginning of this paper. The second question was about revealing any potential norms that function in the translation of English PILs into Kurdish at the terminological level. As mentioned in the introduction, the Iraqi Ministry of Health requires that PILs be translated into Arabic, but it does not require their Kurdish translation. Despite the fact that the Registration Department does not provide guidance to pharmaceutical companies on how to translate PILs into Kurdish, the two pharmaceutical companies in the Kurdistan Region have taken it upon themselves to translate them into Kurdish. However, their translated PILs do not undergo any kind of review or proofreading by the Registration Department or by KMC in Kurdistan. Moreover, the predominance of borrowing as a translation procedure in the TTs indicates that the translators of PILs adhere to the standards of the STs; consequently, according to Toury's (1995-2012) initial norms, the translations of English PILs into Kurdish are adequate translation. Further to this, the translated PILs have developed a pattern where they all have certain procedures mostly used, namely borrowing, explicitation and calque. This indicates that their translators have made an attempt to follow the implied norms prevalent in the translated PILs. This adherence means that the PILs' translators tried to translate according to how it was expected, and hence expectancy norms (Chesterman, 1997, p. 62). That is to say, these expectancy norms are not written or regulated by an official body, but it seems that they have established a normative approach for the translation of PILs into Sorani Kurdish. Kurdish translators of PILs in Kurdistan may translate the PILs generally to meet the expectations of Kurdish consumers. The prevalence of expectancy norms is possibly related to the fact that PILs are produced by private pharmaceutical companies; hence, the translators attempt to translate them in a manner that would satisfy medication consumers, increase sales, and expand the company's international trade.

8 Conclusions

This study was an attempt to academically explore and investigate the translation of English PILs into Sorani Kurdish. The main objectives were to identify the most prevalent translation procedures on the terminological level, and based on that, reveal any translation norms that could be operating in the translated PILs. To do so, it employed a corpus of 150 English PILs and their Kurdish translations. They were compared by the use of Toury's (1995-2012) three-phase methodology and analysed according to both Toury (1995) and

Chesterman’s (1997) norms. As for the translation procedures, Vinay and Darbelnet’s classifications were adopted. The findings revealed that borrowing was the most prevalent procedure in the TTs whereas, modulation was the least used procedure. The predominance of borrowing indicates that the TT producers were closely following the STs, and this puts the TTs in the Toury’s category of adequate translation.

The study has also concluded that the translation of PILs into Kurdish is not mandatory, and while they are translated, there is not an official regulatory body to review and proofread them. Despite this shortcoming, the translated PILs have started to establish a normative approach which prospective translators can follow. Further to these, while translation of PILs into Kurdish is not officially required, the two operating pharmaceutical companies in the region do translate them into Sorani Kurdish, and their endeavour is a key step towards developing the Kurdish medical language.

ڕەوتەکانی وەرگێڕانی زاراوەی پزیشکی لە نامیلکەکانی زانیاری دەرمانی نەخۆش لە زمانی ئینگلیزیەوە بۆ زمانی کوردی

کەزی حسن صالح[1] - نیشتمان عبدالکریم سعید[2]

[1+2]بەشی ئینگلیزی، کۆلێژی پەروەردە و زمان، زانکۆی چەرمو، سلێمانی، هەرێمی کوردستان، عێراق.

پوختەی تۆێژینەوە

نامیلکەی زانیاری دەرمانی نەخۆش پەڕەیەکە کە لەناو پاکەتی دەرماندا هەیە زانیاری گرنگ سەبارەت بە دەرمانەکە لەخۆدەگرێت. ئەم تۆێژینەوەیە لێکۆڵینەوە لە وەرگێڕانی ئەو نامیلکانە دەکات کە لە زمانی ئینگلیزیەوە وەرگێڕدراونەتە سەر زمانی کوردی شێوەزاری سۆرانی. ئامانجی تۆێژینەوەکە دەستنیشانکردنی شێواز و ڕێکارەکانی وەرگێڕانی ئەو زاراوە پزیشکیانەیە کە لەو نامیلکانەدا بەکارهاتون بۆ کەسانی ئاسایی (واتە ئەو کەسانەی دەرمانەکان بەکاردەهێنن). هەروەها تۆێژینەوەکە هەوڵدەدات ئەو ڕەوتانەی وەرگێڕان دەستنیشان بکات کە لە وەرگێڕانی کوردی نامیلکەکاندا پەیڕەوی کراون. بۆ ئەم مەبەستە، تۆێژینەوەکە 150 نامیلکەی زانیاری دەرمانی نەخۆش بە زمانی ئینگلیزی و وەرگێڕانە کوردیەکانیانی بەکارهێناوە.

بەمەبەستی شیکردنەوەی ئەو نامیلکانە ڕێبازی شیکاری (توری) کە لە سێ قۆناغ پێک دەێت لە چوارچێوەی بیردۆزی وەسفکاری وەرگێڕاندا بەکارهێنراوە لەگەڵ ئەو ڕێگە و تەکنیکانەی کە (ڤینای) و (داربڵنێت) بۆ وەرگێڕان پێشنیاریان کردوە، ئەمەش لەپێناو دیاریکردنی ئەو شێواز و ڕێگایانەی کە وەرگێڕەکان بەکاریان هێناون بۆ وەرگێڕانی زاراوە پزیشکیەکان لەناو نامیلکەی دەرمانەکاندا. ئەنجامی شیکاریەکە دەریخستوە کە نۆ ڕێگەی وەرگێڕان لە وەرگێڕانی زاراوە پزیشکیەکاندا بەکارهێناون، بەجۆرێک کە خواستنی زاراوەی دەقە ئینگلیزیەکان پێشەنگی ئەو ڕێگایانەیە کە بەکارهاتون وە ڕێکخستنەوەی وشە و زاراوە کەمترین ڕێگەی بەکارهێنراوە. سەرەڕای ئەمانە، ئەنجامەکان دەریانخستوە کە ڕەوتی بەرایی (توری) بەشێوەیەکی بەرچاو لەناو نامیلکە وەرگێردراوەکاندا هەیە کە ئەمەش بەواتای ئەوە دێت ئەو نامیلکە وەرگێڕدراوانە بەپێی بیردۆزەکەی (توری) پەسەندن. دەشێت مەبەست لەم بژاردەیەی وەرگێڕەکان پابەندبونی تەواویان بێت بە دەقە ئینگلیزیەکانەوە، ئەمەش نیشانی دەدات کە ڕەوتی پێشبینی و چاوەڕوانی پێشنیارکراوی (چێستەرمان) بەهەمان شێوە لە نامیلکە وەرگێڕدراوەکاندا هەیە.

دەرەنجامی لێکۆڵینەوەکە ئەوە دەردەخات کە وەرگێڕانی نامیلکەی زانیاری نەخۆش بۆ زمانی کوردی لە بواری پزیشکیدا ڕێکخراو نییە، ئەمەش بەشێوەیەکی سەرەکی پەیوەندی بە نەبونی دەزگایەکی فەرمی تایبەت بەو بوارە لە هەرێمی کوردستانی عێراقەوە هەیە. هەرچەندە سەرەڕای ئەوەی کە لە وەرگێڕانی ئەو نامیلکانەدا ڕەوتێکی دامەزراوی خواستنی زاراوەی ئینگلیزی بە ئاشکرا دیارە، بەڵام وەرگێڕانی ئەو نامیلکانە هەوڵێکی گرنگە بۆ پەرەپێدانی زمانی پزیشکی کوردی.

کلیلە وشەکان: زمانی پزیشکی کوردی، نامیلکەی زانیاری دەرمانی نەخۆش، کەسانی ئاسایی، ڕێگاکانی وەرگێڕان، ڕەوت.

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