Medical Texts and Their Translation in Translator Training

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Abstract. With the development of medicine, the demand for the translation of medical texts has increased significantly. Translations play an important role in disseminating medical knowledge and new medical discoveries and are vital in the provision of health services to foreigners, tourists, or minorities. Translating medical texts requires a variety of skills. In our study, we assess the extent to which translation and interpretation students at Sapientia Hungarian University of Transylvania are able to translate medical texts from English into their mother tongue (Hungarian) and Romanian (the official language of the country). With the purpose of curriculum development, we examine whether the lack of medical knowledge affects the work of translators and what strategies can be used in translation in the absence of this expertise. We also examine our students’ attitude related to translating medical texts and becoming a medical translator.

Keywords: translator training, medical texts, medical translation, medical writing

1. Medical language use and translation

Medical language (as well as specialized languages in general) is characterized by stratification according to the context and situation in which it is used. This is reflected in both the vertical and the horizontal structure of specialized languages. In this context, we can talk about three closely interlinked user levels: the academic/scientific language, which is characterized primarily by theoretical aspects; the professional common language, which means the use of language in everyday professional practice; the so-called language of mediation, which conveys the results of science and profession to the laity (Roelcke 2002).

In the communication between medical professionals and lay people, doctors, nurses, and other healthcare professionals (in some cases, medical writers as well)
have to use clear and understandable language and offer explanations for non-professionals. They can be called “bilinguals” (Kuna and Ludányi 2018) who need to know both the language of their patients, the patients’ relatives, or their target readers and the language of the medical profession. This kind of bilingualism is complex and complicated, is often difficult to implement, and possible failures in communication between medical professionals and patients may cause dissatisfaction among patients, sometimes even leading to inadequate treatments and lawsuits (Pilling 2008, Youngson 2017). The language of the documentation received by patients (clinical findings, hospital discharge forms, medical letters, reports, prescriptions) can play an outstanding role in communication between medical professionals and patients. The correct interpretation and understanding of medical documentation may be vital for successful treatment, patient safety, and satisfaction. Expert–lay communication should include less complicated and complex medical terms, or such terms should be explained or illustrated when they occur for the first time (Gotti 2008).

In the 21st century, a new phenomenon, the category of the e-patients, or “smart patients” appeared (Meskó 2016), meaning that patients and online communities discuss and provide information and organize themselves in online forums about different illnesses and recovery. This also has an impact on the transformation of the structure of healing and healthcare, and it creates new challenges regarding communication between healthcare professionals and patients, and the use and understanding of medical terms, treatments, and procedures.

The three mentioned user levels are very closely linked. The language of medical documentation, the excessive or individual use of abbreviations and acronyms can make even communication among professionals difficult although they are an integral part of their active vocabulary. According to Bandur (2003), physicians use nearly 300 abbreviations as part of their active vocabulary, and they understand approximately the same amount in a given situation. However, it often occurs that a specialist of a certain medical domain does not understand expressions and abbreviations related to other domains. Genres used in the communication between professionals, such as case studies, discharge summaries, imaging reports, contain a large number of specialized terms whose meaning is generally known by the professional users. However, some of the words or phrases may have to be explained when they are redefined by an author (Gotti 2008). The professional common language in the communication between professionals can depend to a large extent on the context. Depending on this, they can be more closely intertwined with the academic/scientific language or the language of mediation. There are specifically standard text types following conventionalized patterns such as a referral. The referral is an official document, and it must contain certain specific information (for example, the name of the official institution, the name of the patient, his/her place and time of birth and
address, the period of medical treatment care, the time of the examination, medical history, diagnosis; the name, signature, stamp number and seal of the doctor) (Kuna and Ludányi 2018).

The highest level of abstraction in professional languages may be encountered in the so-called theoretical, academic, or scientific language use, which also has its characteristic speech events, discourse types, and related terminological problems. Academic language is used in scientific lectures and articles, studies, monographs, and also in medical education. The main characteristics of specialized medical texts are that in most cases they include syntactic features such as nominalization, long sentences, pre- and post-modifications, the use of third person and passives, and terminology (Askehave and Zethsen 2000).

Medical translation is necessary in several different subject areas depending on the fields of specialty such as surgery, pharmacology, medical rescue, obstetrics, oncology, paediatrics, psychiatry, cardiology, internal medicine, and other related disciplines such as administration and law. Medical texts cover a wide variety of topics related to the different branches of medicine, and they can also belong to different genres such as clinical guidelines, grant applications, manuscripts, media releases about research, news and feature articles for medical professionals, pharmaceutical product marketing materials, product information, protocols, regulatory submissions, reports, research papers, conference proceedings, case histories, case studies, discharge summaries, and relatively simple texts for patients: consent forms, information leaflets, brochures, and others. According to Karwacka (2015: 291), “medical translation is a complex and interesting phenomenon in which linguistic, sociocultural, scientific, economic and other factors are at play”. Translation of medical texts in any of the above-mentioned user levels, domains, or genres can be vital, and medical translators must be aware of the responsibility they undertake in this challenging work.

2. Translator trainees’ work and performance

The target group of this study consists of 24 translator trainees, BA students studying Translation and Interpretation at Sapientia Hungarian University of Transylvania. Our three-year bachelor programme offers training in three languages: Hungarian (their mother tongue), Romanian (their second language and the official language of the country), and English (their third/foreign language). The programme includes a two-semester-long course and seminar in specialized languages in the second year and two semesters of practice in translating medical texts in the third year. It is important to note that this BA programme is not designed to train specialized translators. The subjects included in the programme offer our translator trainees the possibility to get acquainted
with the characteristics and translation of specialized texts on a basic level. If they wish to become translators in the domain of healthcare and medicine, they will need to study and practise more in order to become licensed and accredited specialized translators.

Translation and interpretation graduates do not automatically become authorized and licensed translators in Romania. For that, they need to take an examination organized by the Ministry of Culture. This test may be taken in several domains: agricultural sciences, art, chemistry, economic sciences, electronics and telecommunications, geography, history, informatics, legal sciences, literature, mathematical sciences, medicine and pharmacy, philosophy and religion, physics, political science, sociology, technology. While writing the test, candidates are not allowed to use the Internet, machine translation, or other online resources, only a printed bilingual dictionary. As a result, the chances of candidates who studied applied linguistics but have no previous training or work experience in a specialized domain is rather limited. In the classes dedicated to the translation of medical texts, we use some of the sample texts related to medicine and pharmacy published in the candidate’s guide for the translator exam, issued by the Ministry of Culture (Blănaru and Romanic 2018), in order to show them the level of difficulty of such a test.

In this study, we assessed our target group’s attitude regarding the translation of medical texts, the strategies they used in the process of translating them, and the possible difficulties they faced in the process. We also analysed some of their translations in order to assess their performance and identify the most common errors.

2.1. Translating medical texts – Students’ perspectives

We designed a questionnaire in order to assess our students’ needs related to translating medical texts. The questionnaire consisted of seven questions focusing on translator trainees’ attitude, difficulties, strategies, and use of ICT tools related to translating medical texts, and it was completed by 24 third-year students.

First, we asked about their future intentions, enquiring whether they considered becoming medical translators. Three possible answers could be chosen: Yes, No, I do not know – and they had to explain their choice. The students’ options are shown in Figure 1.
Figure 1. Preference of becoming a medical translator

More than half of the translator trainees do not wish to become medical translators, six are indecisive, and five would like to become medical translators. The students who do not wish to translate medical texts as a future career gave the following reasons: they think that they could never get familiar with medical procedures and the related terminology; it is a large domain, and even doctors or pharmacists may have difficulties in understanding texts which are not related to their specialty; medical texts can be too complex and difficult, they do not understand them; there can be too much risk and responsibility when translating medical documents; they are more interested in other domains such as audiovisual translation, translating literature or texts from other domains; they do not plan to work as translators; some of them would be interested in translating health-related texts written for the general public, about topics such as wellbeing, diet, lifestyle, treating or preventing certain diseases, but not scientific or highly specialized texts. Those students, who do not know whether they would work as medical translators justified their answer as follows: if there are such jobs, they are probably taken by translators who also have a degree in the domain of healthcare; they do not know if such jobs exist or would be available in Romania; they doubt if they could meet the job requirements for a medical translator; it is too soon to think about a future job, they need more experience in order to decide. Translator trainees who would like to become medical translators gave the following explanations: medical translators are well paid; online sources and machine translation can help overcome the possible difficulties in translating medical texts; texts related to healthcare can be challenging, but they are also interesting; they already have a degree in healthcare; they are interested in topics related to healthcare.

The next question was related to the difficulty of translating medical texts compared to general translation. The majority of the students (22) believe that medical translation is more difficult, and they mentioned four difficulties which they encountered while translating medical texts: resulting from their lack of subject knowledge and experience in the domain of healthcare, they could not
decide whether their translations were acceptable; they did not understand the meaning of certain terms/sentences/procedures in the source text; they were unable to find the target language equivalent of some source language medical terms; they could not find reliable online sources or dictionaries which could help in the process of translation.

The following question referred to the possible solutions and strategies they found to overcome the difficulties. Here the following were mentioned: colleagues, teachers, or specialist friends helped with proofreading; they consulted specialized online resources, dictionaries or asked people who studied or worked in the domain of healthcare for help.

The fourth question referred to the sources they used when translating medical texts. Here they mentioned machine translation (MT), textbooks, online dictionaries, course books, websites related to the subject domain, containing definitions of terms and descriptions of different processes and procedures. They also asked friends or acquaintances working in healthcare for guidance and explanations.

In the fifth question, we asked whether MT (e.g. Google Translate or DeepL) and CAT tools (e.g. Trados or MemoQ) were useful when translating medical texts. MT proved to be helpful in translating English texts into Romanian, but it was less efficient when translating into Hungarian. Most students mentioned that they relied mostly on MT; their work consisted mainly in identifying and correcting the errors and mistranslations in the target texts generated by Google Translate. In their case, CAT tools did not prove to be particularly useful in translating medical texts.

In the last question, respondents were asked to mention five skills or characteristics which they consider essential for a medical translator. Some of them listed less than five characteristics. In order of frequency, the following were mentioned (in brackets we also indicate the number of the students who mentioned them): good command of the target language and the source language (20); familiarity with/experience in the subject area (18); domain knowledge – medical knowledge and skills (15); good writing skills (13); familiarity with the terminology of the domain (12); ICT skills (10); accuracy (8); research skills (4); problem-solving skills (2); cultural awareness (2); time management (1); teamwork (1); creativity (1); flexibility (1); attention to details (1); self-sufficiency (1); resourcefulness (1); openness (1).

2.2. The process and outcome of medical translation – Translator trainees’ work

We also analysed our students’ translations of medical texts, focusing on the problems and difficulties they encountered and the solutions they found. These issues are illustrated with examples from the translations, also giving explanations based on interviews with the students whose works we selected for this analysis.
Table 1. English medical text translated into Romanian

<table>
<thead>
<tr>
<th>Source text</th>
<th>Google Translate</th>
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| “Studies have provided much of today’s knowledge about cancers caused by radiation exposures from nuclear power plant accidents. The new research builds on this foundation using next-generation DNA sequencing and other genomic characterization tools to analyze biospecimens from people in Ukraine who were affected by the disaster. The first study investigated the long-standing question of whether radiation exposure results in genetic changes that can be passed from parent to offspring, as has been suggested by some studies in animals. To answer this question, Dr. Chanock and his colleagues analyzed the complete genomes of 130 people born between 1987 and 2002 and their 105 mother-father pairs.”

In Table 1, we present an example, a paragraph from a text with the title *Genetic Effects of Chernobyl Radiation*, translated from English into Romanian. The first column of the table contains the source text, the second column its Google Translate version, and the third and fourth columns two translations performed by students. The Google Translate version is included because most of our students mentioned that they started their work by creating a raw translation with the help of MT. The third column contains such an example – a corrected MT translation. The unacceptable parts of the translations are underlined, the corrected and rephrased parts (compared to the machine-translated version) are in italics. The fourth column contains the work of a student who did not use MT, only online dictionaries and websites related to the topic. It is important to mention that none of our students have any previous training in healthcare.

As shown in Table 1, the Google Translate version contains four mistranslated sections. In the first one, the singular form of the word *centralei* in Romanian suggests that the study refers to accidents caused by only one power plant. In order to refer to power plants in general, as suggested in the source text, the plural form *centralelor* should be used. The first student managed to correct this error. The second underlined error is a mistranslation which alters the initial message of the source text: *secvențierea ADN-ului de nouă generație*. If we translate it back into English, it means ‘sequencing of the new generation DNS’. This mistranslation was not noticed and corrected by the student. The next underlined part, *problema îndelungată a faptului*, means ‘the prolonged problem of the fact’, which does not make any sense in this context. The student managed to correct it appropriately. The last mistranslation is in fact an omission, failing to convey that the mother–father pairs were in fact the parents of the 130 people mentioned before. The student failed to notice this omission.

The second student did not use Google Translate, only online dictionaries. Therefore, her errors are not related to the MT version from the second column. Her first, rather significant error, was the misinterpretation and mistranslation of the first sentence. If we translate it back to English, it means that ‘nowadays knowledge about cancer is caused by exposure to radiation from a nuclear accident’. Her second underlined mistranslation is probably again the result of misinterpreting the source text because her translation means ‘DNS sequencing of the new generation’. The next mistake occurs in the translation of ‘from people’ as *al oamenii*, an incorrect form in Romanian. Instead, she should have used the word *persoanelor*. The following underlined part is again an example of the use of incorrect structures in Romanian; a corrected version could be: *a căutat răspuns la această întrebare veche referitoare la efectele genetice...* The word *aceaste* contains a spelling error, the correct form is *această* (this).
Table 2. English medical text translated into Hungarian

<table>
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When translating an English text into Romanian, our students work in fact with two languages, neither of which is their native language. This fact definitely adds to the difficulty of the task. However, if they intend to find a job in Romania, they must be able to translate into or from Romanian as well.

The second example contains the same paragraph from the same text translated into Hungarian. As is the previous example, Table 2 also contains the source text, its machine-translated version, and the translations performed by two students. The third column contains an example of a poor translation and the fourth column a better one. Both students used MT in their work. The unacceptable parts of the translations are underlined, the corrected and rephrased parts – compared to the Google Translate version – are in italics.

As we can see in the second column of Table 2, the machine translation contains longer mistranslated parts and structures that are not considered correct or appropriate in Hungarian. The first student failed to correct any of them; moreover, his translation contains also another mistake: using the definite article at the beginning of the first sentence, thus altering its meaning, referring to the studies, as if the article enlisted all the studies related to the topic. The second student produced a more acceptable translation, doing a much better job in reformulating the sentences using more appropriate style and forms in Hungarian. The first underlined sentence in the machine-translated version is difficult to understand because of its confusing structure. By changing the word order and structure, the second student managed to formulate a clearer sentence. The second underlined part contains another word order issue in the Hungarian text, which was successfully solved by the second student. The translations of the last sentence in all three Hungarian translations contains the same omission, which was also a problem in the Romanian translations: failing to convey that the mother–father pairs were in fact the parents of the 130 people mentioned before.

3. Conclusions

Medical translation has proved to be a difficult task for translator trainees, who have no previous experience or studies in the domain of healthcare, and their main interest is in humanistic studies. Most of them do not even consider becoming medical translators, and when faced with such texts, they heavily rely on MT and Internet sources in order to compensate for their lack of experience in the subject area. However, because of the demands of the market, and personal or financial interests, some of the students are willing to take up the challenge of a career in medical translation.

The questionnaire and the analysis of the translations offered us a deeper insight into our students’ needs, strengths, and weaknesses, and it may be helpful
Medical Texts and Their Translation in Translator Training

in curriculum development. We can demonstrate and practise the features of medical writing and translation, raise our students’ awareness of the necessary skills and knowledge, and help them develop some strategies and techniques that they might find helpful when encountering medical texts. For those who would like to take up medical translation as a career, it is advisable to receive further training in the subject domain.

A further step of this research may be a comparative study of medical translations performed by translator trainees versus medical students with the same level of English (B2/C1).

References


