The Language Situation in the Healthcare Sector of the Republic of Kazakhstan

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Abstract

In Kazakhstan, three languages namely Kazakh, Russian and English are used in various sociolinguistic domains, and their proficiency differs in each linguistic environment. This study posits the belief that healthcare environment much depends upon a proper language that should be accessible and comprehensible to all doctors and patients, since the absence of effective communication can result in inaccurate diagnosis and incorrect treatment plan. Hence there is a need to study the use of Kazakh, Russian and English languages under various circumstances. The study adopted a mixed method research design, a questionnaire survey, to collect the opinions of the healthcare workers of the entire region; and a semi-structured interview to understand the diversity of points of view about language situations. The sample comprised 700 health workers, who expressed their views on the possible of trilingualism in the Republic of Kazakhstan, and difficulties associated with its implementation. The findings revealed that language assists in the assessment of the relevance of information and accessibility at a very high level; hence, language should be one of the professional competencies of health service workers. Future studies should conduct a more comprehensive study of the linguistic situation in the field of healthcare

Introduction

The use of language in the healthcare sector refers to instances of interpretation and translation for health issues. Examples of such include appointments, availability of a patient's medical history in a different language, lab test results, and doctor-patient oral and written communication. Medical Interpretation refers to the transfer of oral communication from one language to another. This enables real-time, cross-linguistic communication, which can be conducted face-to-face, in a conference setting, or over the phone. Medical Translation is required for a written text, such as prescriptions and results, from a source language into a target language while preserving meaning. A proper healthcare between the patient and the medical professionals depends much on language and communication. Poor communication can result in an incomplete or inaccurate diagnosis, and a treatment plan based on misinformation.

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Due to the COVID-19 restrictions, remote medical language services had increased exponentially. The pandemic influenced medical facilities requiring more interpretation facilities, in the name of safety for patients. It was significantly emphasized that all medical facilities should have proper medical language services accessible to all doctors and patients. These wee proactive measures adopted to prevent incorrect medical translation and interpretation leading to medical errors. Multiple cases were reported in Canada where a language barrier resulted in misdiagnosis and serious (Bischoff & Hudelson, 2010). More popular examples of language barriers causing confusion and medical errors include wrong surgeries, unnecessary lab tests and experiments, and inaccurate prescriptions and medication. Hence, access to language services within the healthcare industry is crucial to provide a smooth healthcare service.

Healthcare professionals positively assess the language situation in the Republic of Kazakhstan. The scope of the state language is constantly expanding, Russian and Kazakh languages are equally used in the field of healthcare. Healthcare workers are increasingly using the Kazakh language in their professional activities (64.4%). The share of those who use Russian is found to be 23.9% and English only 1.4% (Zhumanova, Dosova, Imanbetov, & Zhumashev, 2016). Doctors and other professionals strive hard to improve access to quality healthcare for all the people of the country, but achieving this goal is not always easy - especially when language barriers hinder the ability to provide the proper treatment to all patients.

Language barriers occur mainly due to cultural differences which can inhibit effective healthcare. Miscommunication or absence of communication can also result in the individuals' inability to receive satisfactory care in a hospital. Language barriers are caused due to a rapid growth of the number of immigrants and expatriates who cannot speak the local language. The patient and health service provider do not share a native language or speak a common language. In such a case, the patient is more disadvantaged in terms of access to healthcare services, potentially leading to unequal treatment and unequal health outcomes. Physicians face the difficulty in understanding patients who do not speak their language, potentially leading to misdiagnosis and unnecessary medications. Furthermore, the language differences increase the patient's likelihood of missing medical appointments and/or having problems scheduling appointments. However, despite such cultural and language gaps, medical and health care continue to expand, innovate and improve.

The Republic of Kazakhstan has faced regulation challenges related to language and its usage in the country (Aksholakova & Ismailova, 2013; Akzhigitova & Zharkynbekova, 2014). The country has positioned itself to provide equal opportunities for the development of all languages spoken in the republic. The modern language policy is implemented in Kazakhstan in accordance with the Constitution of the Republic of Kazakhstan and the Law of the Republic of Kazakhstan "On Languages in the Republic of Kazakhstan" and other documents regulating the state-legal aspects of language relations. Being a multinational country, in addition, the tolerant nature of its language policy is dictated by the prevailing historical conditions, wherein language remains Russian as evidence of interethnic communication in the country. This fact has to be taken into account when pursuing language policy; however, equal attention needs to be paid and efforts to be made for the development of the native language of the country- the Kazakh language (Tlepbergen, Akzhigitova, & Zabrodskaja, 2023).

In the early years of independence, a language policy began to be carried out in the republic, which aimed at the development of all languages of the peoples of Kazakhstan, especially the state language. The main goal of the entire language policy, however, was to ensure the full functioning of the state language, the Kazakh language, in order to strengthen national unity while preserving the languages of all ethnic groups living in Kazakhstan. The language policy is an important part of the national policy of the state and therefore the preservation of interethnic harmony in Kazakhstani society depends on its effectiveness. It is therefore necessary to emphasize the interethnic nature of the language policy, since, despite the fact that priority is given to the development of the Kazakh language in the first place, maximum attention is paid to the development of the Russian language and the languages of all other ethnic groups in the country.

This study attempted to gather information about the main problems in the implementation of language policy and in strengthening the competitive capacity of Kazakh as the state language, particularly in the domain of healthcare. The paper addresses the following research questions:

1. What is the level of knowledge of the Kazakh, Russian and English languages by healthcare workers?
2. What languages do healthcare workers use in the performance of official duties?
3. What is the opinion of healthcare workers on the development of the state language on the Internet and on the relevance of transition of the Kazakh alphabet into Latin script?

Literature Review

Bischoff and Hudelson (2010) conducted a study on the Toronto General and Toronto Westerns hospitals, and found that patients with chronic diseases and limited knowledge of the English language are more likely to return to the emergency room or be readmitted to a hospital due to poorer understanding of

discharge instructions and not taking medication as required, compared to those who are proficient in the language and were discharged with similar health concerns. This clearly indicates that an access to professional interpreters is critical for the healthcare sector, which will also be useful for the patients with limited English proficiency. In another study reported in an Omani medical journal found that "patients who face language barriers are also more likely to consume more healthcare services and experience more adverse events" (Al Shamsi, Almutairi, Al Mashrafi, & Al Kalbani, 2020). The language barriers and lack of access to interpretation or translation services within hospitals potentially results in unsafe health care, leading to consequences like missed diagnoses, medical errors, and poor quality of healthcare.

There are a few other studies that have examined the relationship between language barriers and patient satisfaction, as well as the effects of language barriers on healthcare provider and patient satisfaction, healthcare provider satisfaction, and the cost and quality of interpretation services, as well as online translation tools (Al Shamsi, Almutairi, Al Mashrafi, & Al Kalbani, 2020; Andriyanto, 2019; Gerchow, Burka, Miner, & Squires, 2021; Yeheskel & Rawal, 2019). These studies highlight how incorrect diagnoses and treatments worsen the patients' situation due to language differences between patient and doctors. Thes studies also stressed upon the necessity of professional interpreters and translators to help doctors and patients who do not speak the native language and face the difficulty in being understood. A similar situation was faced by South African nurses working in Saudi Arabia to communicate with patients, their families, and nurses from other nations (Alshammari, Duff, & Guilhermino, 2019).

Regular investigation of language situation in Kazakhstan is the only way how to evaluate the results of the language policy and how to plan its forthcoming tasks (Koptleuova et al., 2022). Sociolinguistic categories are important for language characterization. Abisheva (2001) defines the sociolinguistic category as "a generalized feature of the sociolinguistic aspect of life and the relationship of the subjects of the contact process that determine indirectly cross-cultural interaction that is regularly updated in contact and language activities. Sociolinguistic categories include social status that has remote, positional, role and ethno-cultural dimensions, language situation, language policy, and functional distribution of languages (Borodina, 2018; Lin, 2015).

The language situation refers to the "the totality of the existence (as well as styles) of one language or the totality of languages in their territorial-social relationship and functional interaction within the boundaries of certain geographical regions or administrative-political entities" (Yartseva, 2002). When describing language situations, it is suggested to distinguish four attributes of languages: first, historical conditionality, which refers to the formation of a language in the process of its development in the conditions of natural functioning, its connection with national and ethnic traditions; second, standardization or the presence of codified grammatical and lexical norms in a language; third, viability determined by the presence of an appropriate collective for which this language is native; and lastly, homogeneity or the main lexicon of this language and its grammatical structure go back to a single, earlier stage of its development. Based on these attributes, the following types of languages are distinguished: standard, classical, local, Creole, and Pidgin (Borisova & Ilina, 2017; Shaibakova, 2019).

Suleimenova and Smagulova (2005) understand the language situation as the context of the real use of a language/languages in society, a set of languages, forms of language existence. Territorial and social dialects, koine, and jargons that function in a given administrative-territorial association (in an ethnic community) during a certain historical period. The language situation is a variable and extremely complex phenomenon that directly depends on specific geopolitical, socio-demographic, historical, cultural, and sociolinguistic conditions. In the sociolinguistic literature, it is noted that to characterize the language situation, it is important to take into account both objective and subjective factors that affect the state of languages that function in a given society of languages.

Suleimenova and Smagulova (2005) believes that the parameter "organic-nonorganic" leads to the identification of two main types of multilingual situations: first, a multilingual situation, which is characterized by the fact that organic languages occupy a lower, subordinate position with supra-ethnic, inorganic signs at the highest levels; second, a multilingual situation in which one of the organic languages, endowed with a dual function - to serve both as a means of communication and culture of an individual ethnic group and as a means of inter-ethnic communication, serves the needs of the entire political and administrative formation. In this case, both organic and inorganic properties develop in the same language.

Language situations are also based on such parameters as exoglossity / endoglossity and balance/unbalance as sub-groups. Exoglossal language situations are a set of individual languages of a particular administrative-territorial entity, and endoglossal language situations are a set of sublanguages and functional styles of a particular administrative-territorial entity (Mikhalchenko, 2022; Muhammad, 2019). The other two subgroups: balanced and unbalanced language situations differentiate on the basis of the type of relationships of verbal components that make up the language situation (hierarchical or equivalent). Balanced language situations are situations where language subsystems are functionally dissimilar. On the contrary, an unbalanced type of language situation is observed if their components are distributed by spheres of communication and social groups (Kolomiets, 2021; Skachkova & Skachkova,

2020). Likewise, Mechkovskaya (2000) distinguishes eight types of language situations: single-component / multicomponent; multi-component, monolingual, multi-component; demographically balanced – unbalanced; balanced - unbalanced; language situations with identical legal status - different legal status; language situations with closely related bilingualism and non-closely related, unrelated; endoglossal and exoglossal; and diglossal - non-diglossal.

Khasanov (1992) characterized the language situation in Kazakhstan by three parameters: first, the number of functional units, the scope of which is very different (this parameter is a quantitative sign of the language situation; second, the linguistic nature of the languages included in the language situation; it is a qualitative sign of the language situation; this includes the types and forms of bilingualism and multilingualism that exist in the Republic (these are 126 types of bilingualism, consisting of 125 national and Russian languages, about two dozen Russian-national and national-Kazakh bilingualism, at least ten cases of national-national type of bilingualism and trilingualism, represented by the trinity of Kazakh, Russian and national languages); third, the degree of prevalence of languages by population size and the volume of public functions performed (according to this type, languages are divided into common, less common, least common).

Methodology

- *Research design*

This study adopted a mixed method research design, employing both qualitative and quantitative methods to conduct the research. The mixed method research suited this study as the quantitative instrument, a questionnaire survey, enabled to focus on the opinions of the healthcare workers of the entire region; while semi-structured interviews with a focused group helped understand the diversity of points of view about languages and language situation obtained during the research.

- *Sampling and population*

The study involved 700 health workers, 51% female and 49% male. These health workers were in the age range: 30-45 years old - 34%, 18-29 years old - 33.4%, 45 years and older - 32.6%. By ethnicity, a majority were representatives of Kazakh nationality - 76.9%, while Russians were 16.9%, with the rest (Kyrgyz, Uzbek, Ukrainian, Tatar, Korean, Uighur, Belarusian, German) ethnic groups being 6.2%. In terms of education level, more than half of healthcare workers had vocational education (53%), followed by specialists with higher education (36.7%), while those with secondary education were 10.3%. Most of the respondents were mid-level specialists, paramedics - 32.6%; the doctors were 18.4%, radiologists - 15.3%, nurses - 9.7%, pharmacists - 9.4%, ultrasound specialists - 6.0%, laboratory assistants - 4.3%, and chief physicians - 3.7 %. Places of service for health professionals were distributed as follows: 34.9% in private clinics, 2.9% in polyclinics, 18.0% in hospitals, 7.6% in pharmacies, 6.1% in rehabilitation centers, medical correction centers, 3.3% day hospitals, 2.7% work in procedural filters.

- *Research procedure*

At the first stage, an online questionnaire survey was conducted in all regions of Kazakhstan, assisted by skilled and specially trained research assistants. All the assistants were instructed about the type of survey, its timing and the rules for selecting respondents. At the second stage, interviews were conducted with a randomly selected sample of a few health workers to triangulate the findings of the survey.

- *Data analysis*

The data was processed and analyzed on the latest version of SPSS, which unifiedd the results obtained for integration into a common database. During the data analysis, it was necessary to recognize the potential biases in the census data or in the self-reported language usage. Some erroneous data was the result of respondents providing incorrect information. However, one of the advantages of analyzing erroneous data is the fact that many of them are directly observable and can help evaluate effectiveness.

Findings and Discussion

- *The choice of the population regarding the language*

Health service professionals positively assessed the language situation in the Republic of Kazakhstan as presented in Table 1. This data suggests that the state language, Kazakh, is constantly expanding

through meetings and documentation maintenance, voted by 64.0%, the Russian and Kazakh languages are equally used in the healthcare sector, voted by 18.6%. The language situation in the healthcare sector directly depends on the content: the Russian language prevails in communication, only official documents are filled in the state language, as opted by 14.7% respondents. There is an understanding of the importance of knowing the Kazakh language, but all work in this area is carried out in Russian as opted by 2.7 % respondents.

Table 1. *Respondents' answers to the question: "How do you assess the language situation in the healthcare sector in the Republic of Kazakhstan?"*

	Answer Options	Percentage
1.	The scope of the state language is steadily expanding (meetings are held, documentation is being maintained)	64.0
2.	Both Russian and Kazakh are used almost equally in healthcare	18.6
3.	Understanding the importance of knowing the Kazakh language is present among colleagues, however, in fact, all work in the field is carried out in Russian	2.7
4.	The language situation in the health sector directly depends on the content: Russian is predominant, Kazakh language is used only in official documents	14.7

The reasons for the priority use of the Russian language in the field of healthcare include, first of all, textbooks in the field of medicine, important information, often found in Russian (41.4%). Secondly, healthcare managers, qualified specialists play an important role in providing healthcare services, many of them were educated in Russian (27.9%). Thirdly, depending on the location, in some cities/villages the Russian-speaking population lived in the majority, therefore the Russian language prevails (12.6%). Only 9.9% answered that the Russian language is convenient to use and necessary for quick understanding/interpretation for representatives of other nationalities. These data are presented in Table 2.

Table 2. *Respondents' answers to the question: "What are the reasons if healthcare professionals most often use Russian in their work?"*

	Answer options	Percentage
1.	Textbooks in the field of medicine, important information is often found in Russian	41.4
2.	Managers, qualified healthcare professionals were educated in Russian	27.9
3.	It depends on the locality, in our city/village the Russian-speaking people/representatives of other ethnic groups live in the majority, so the Russian language is used mainly	12.6
4.	The Russian language is easy to use and necessary for a quick understanding of representatives of other ethnic groups	9.9
5.	Other	4.6
6.	Difficult to answer	3.7

Healthcare professionals expressed a growing interest in the Kazakh language in assessing the language situation in the Republic of Kazakhstan, as presented in Figure 1. Most respondents believed that people strive to learn the state language (45.6%), Kazakh and Russian languages are used equally in society (16.4%). Among specialists, there is a growing understanding of the importance of knowing English, healthcare workers need to learn this language in order to be fluent in it - 9%, in large cities Russian prevails, in rural areas Kazakh prevails - 8.7%, "in my opinion, there is a growing interest to the study of English" - 7.4%, in general, the situation has not changed, the Russian language prevails in everyday life, and the state language is officially used - 3.1%.
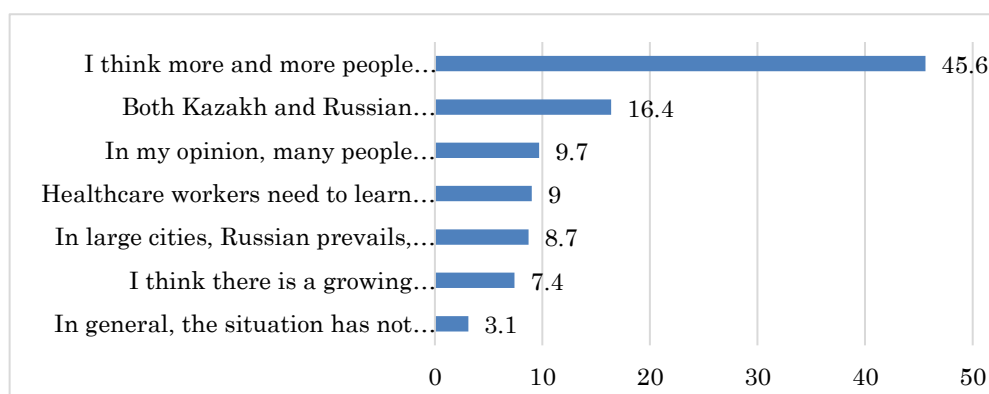

Figure 1. *Respondents' answers to the question: "What is the language situation, in your opinion, at present in the Republic of Kazakhstan?" (in percentage).*

- *The level of proficiency in the state, Russian, English and languages of their ethnic groups by healthcare workers*

  The level of language proficiency of healthcare professionals was assessed and presented in Table 3:

— *Kazakh language:* 84.7% of employees are fluent in written and oral speech; only 0.1% do not speak at all.
— *Russian language:* 54.6% can write and speak well, 26.0% do not know the language well enough, the proportion of those who do not know at all is 0.6%.
— *English:* among employees, the proportion of native speakers is 7.9%, insufficiently proficient in the language - 33.0%, not fully proficient in the language - 33.3%.
— *Other languages:* 16.7% of specialists are fluent in other languages, 50.0% do not speak well enough, the share of those who do not know at all is 33%.

Table 3. *Respondents' answers to the question: "Please rate the degree of language proficiency?" (in percentage)*

Languages	I am fluent in written and oral communication	I speak at an intermediate level (for example, I can speak, but I have problems with writing)	I do not speak well enough (I know some phrases and expressions)	I do not know
Kazakh	84.7	10.0	5.1	0.1
Russian	54.6	18.9	26.0	0.6
English	7.9	28.1	33.0	31.0
Other language	16.7	-	50.0	33.3

- *Proficiency and use of languages by health workers in their professional field*

  Figure 2 exhibits that in their professional activities, healthcare workers increasingly use the Kazakh language (64.4%). The number of people using the Russian language was 23.9%, English - only 1.4%. The share of employees who speak both languages is 9.7%. The smallest share of responses was the uniform use of Kazakh, Russian and English by employees (0.6%).
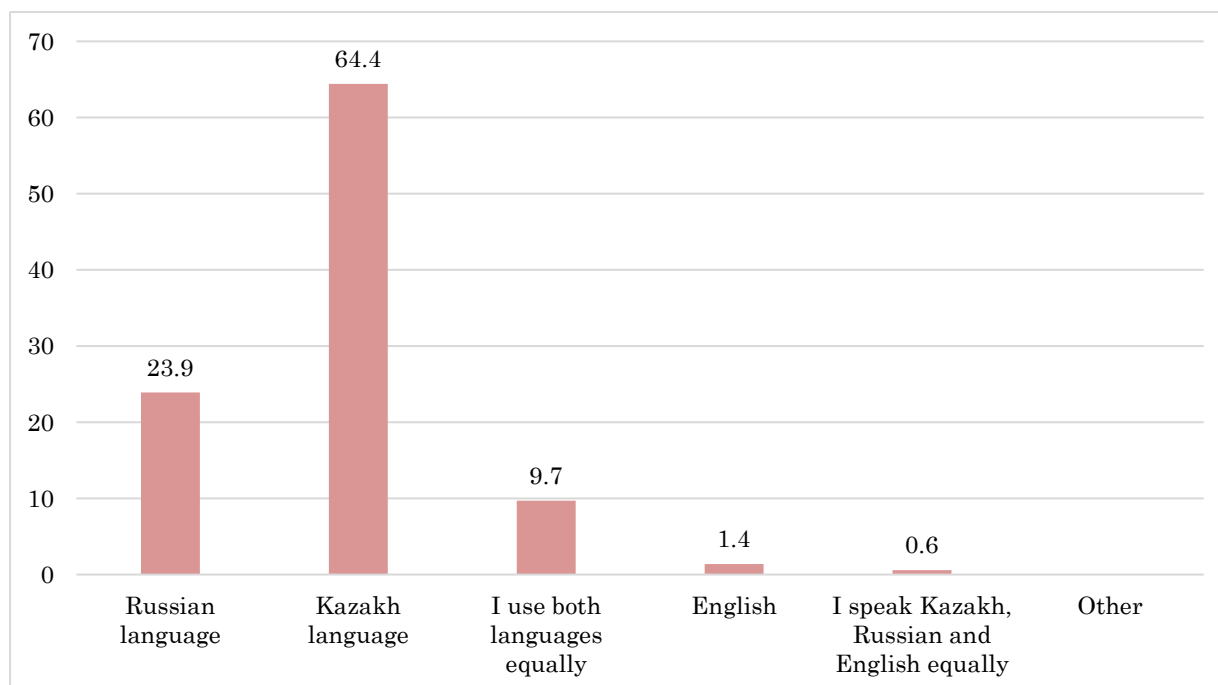

Figure 2. *Respondents' answers to the question: "What is the main language for you in your professional activity?" (in percentage).*

Table 4 depicts the difficulties faced by healthcare workers. One of the difficulties in using languages in their professional activities was due to the increase in the number of documents in the Kazakh language (40.0%) and the small number of workers who fully knew the state language (23.4%), 19.0% did not have significant problems using the language that is convenient for them, and if necessary, translation into another language, turning to the help of other employees, 17.4% answered that there were no problems.

Table 4. *Respondents' answers to the question: "Do you have problems with the use of languages in your professional activities?"*

	Answer options	Percentage
1.	Yes, more and more documentation needs to be provided in Kazakh	40.0
2.	Yes, more and more Kazakh-language content (patients) and few employees who fully speak the state language	23.4
3.	There are no significant problems. I use the language that is convenient for me, and if I need translation into another language, I ask the help of other employees	19.1
4.	No problems	17.4
5.	Other	-

In general, filling out documents and the small number of employees who are fluent in Kazakh, the reasons for which may be the higher education received by the majority in Russian, have become difficulties for health workers in using the state language.

The next issue was to determine the language competence of health workers when using the Damu Med portal. Figure 3 presents that the portal "Damu Med" in most cases is used by employees in the Kazakh and Russian languages (62.9%). The share of users only in Russian is 25.4% and only in Kazakh is 11.7%.
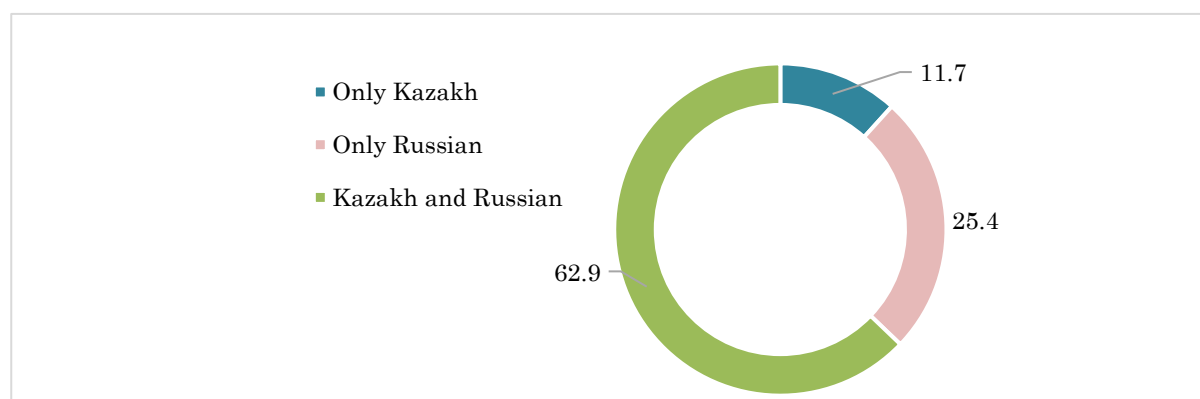
Figure 3. *Respondents' answers to the question "Which language will you choose when using the Damu Med portal?" (in percentage).*

In their response to the next question, the employees named the reasons for using the Damu Med portal in Russian: "because they are used to it, and it is quickly used" (48.3%). Less than a quarter of employees indicated that in Kazakh the information they are looking for is not clear, it is impossible to find the necessary information, it is inconvenient (24.9%) and "I do not choose a specific language, but I like to use Russian if possible" (22.6%). Table 5 summarizes this data.

Table 5. *Respondents' answers to the question: "Why do you use the Damu Med portal in Kazakh/Russian?"*

	Answer Options	Percentage
1.	In the Kazakh language, the information is incomprehensible, it is impossible to find the necessary information, it is inconvenient	24.9
2.	I use it in Russian, because I'm used to it, and it's quickly used	48.3
3.	I don't choose a specific language, but I like to use Russian if possible	22.6
4.	Other	4.3

Thus, the use of the Kazakh language in the professional environment is growing among health care workers, and technical reasons can be attributed to difficulties in use.

- *The use of languages in the performance of official functions by health workers, problems of language communication*

Health service workers identified three main language issues in the field of healthcare: first, the incorrect use of the Kazakh language in the industry (for example, use only during meetings or paperwork) - 60.9%; secondly, the low quality of professional literature used in the state language in universities and colleges - 60.1%; thirdly, the lack of generally accepted scientific terminology in the state language is considered by 54.0%. Table 6 provides this information in a tabular form. Other problems include: the lack of an English language training program for healthcare workers (35.6%), the formal status of the state language and the widespread use of the Russian language in the healthcare sector (23.6%), the lack of a state language training program for healthcare workers (15, 6%), poor knowledge of the Russian language

(15.3%), switching to the Latin alphabet with the corresponding translation of all documentation (13.1%), lack of a Russian language training program for healthcare workers (12.3%) and, to a lesser extent, the need to learn English (9.6%).

Table 6. *Respondents' answers to the question: "Will you single out three main language problems that are relevant for the healthcare sector at the present time?"*

Answer Options	Percentage
1. Absence of a program for training healthcare workers in the state language	15.6
2. Lack of training program for health workers English language	35.6
3. Lack of Russian language training program for healthcare workers	12.3
4. The formal status of the Kazakh language and the widespread use of Russian in healthcare	23.6
5. Incorrect use of the Kazakh language (for example, when holding meetings or preparing documentation)	60.9
6. Low quality of professional literature used in universities and colleges in the state language	60.1
7. Lack of generally accepted scientific terminology in the state language	54.0
8. Weak knowledge of the Russian language	15.3
9. Necessity to study the English language	9.6
10. Transition to the Latin alphabet with the corresponding translation of all documentation	13.1
11. Other	-

*Sum of responses does not add up to 100% as respondents could choose multiple responses.

The respondents also stated their opinion regarding trilingual education in the Republic of Kazakhstan, as shown in Table 7. Health professionals say that this is a state program, the purpose of which is to teach equal fluency in Kazakh, Russian and English in schools, colleges and universities (57.9%). Less than a quarter of employees (21.3%) said they hadn't thought about it, choosing a different answer. 17.1% of employees knew about it, but did not have a clear idea. Only 3.7% chose the answer "No".

Table 7. *Respondents' answers to the question "What do you know about trilingual education in the Republic of Kazakhstan?"*

Answer Options	Percentage
1. This is a state program, the purpose of which is to teach equal fluency in Kazakh, Russian and English in schools, colleges and universities	57.9
2. I know about it, but I don't have a clear idea	17.1
3. I do not have its information	3.7
4. Others (e.g., I didn't think about it)	21.3

Figure 4 exhibits the opinion of the health service workers e.g., the need for a trilingual development program in the Republic of Kazakhstan is 74.1% ("Yes, of course, the program is relevant" - 37%, "Yes, but there are questions related to the implementation of the program" - 37.1%). 18.6% of employees found it difficult to answer. Negative answers amounted to 7.3% ("No, it is necessary to solve pressing socio-economic problems" - 4.0%, "Rather no than yes" - 3.3%).
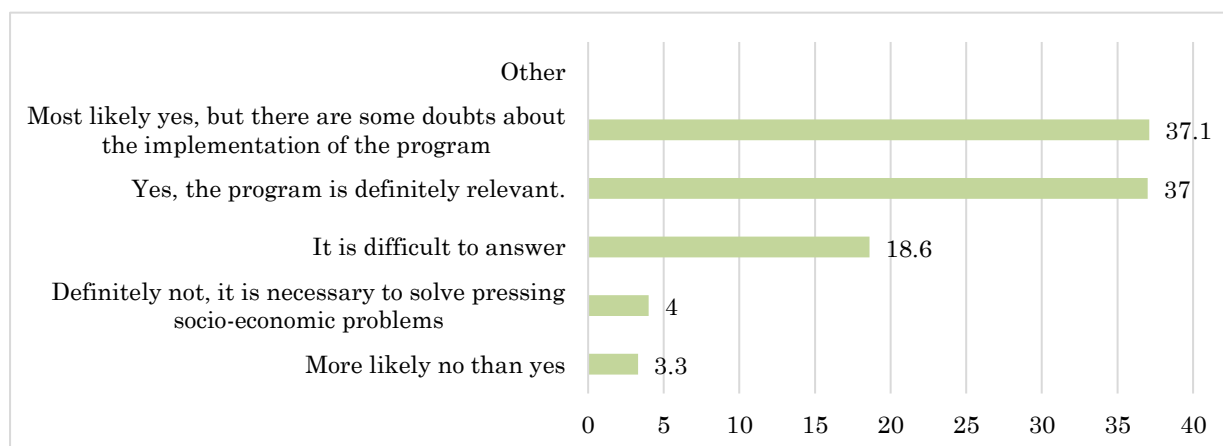

Figure 4. *Respondents' answers to the question: "In your opinion, is there a need for a program for the development of trilingualism in the Republic of Kazakhstan?" (in percentage).*

Figure 5 exhibits the responses to the question: "How long do you think it will take for employees to introduce "trilingualism"?" 43.9% of respondents answered that the implementation will be carried out in 9-12 years, 21.1% believe that it is possible to introduce trilingualism in 6-8 years, 16.9% - in 4-5 years, 10.1% - in 1-3 years.
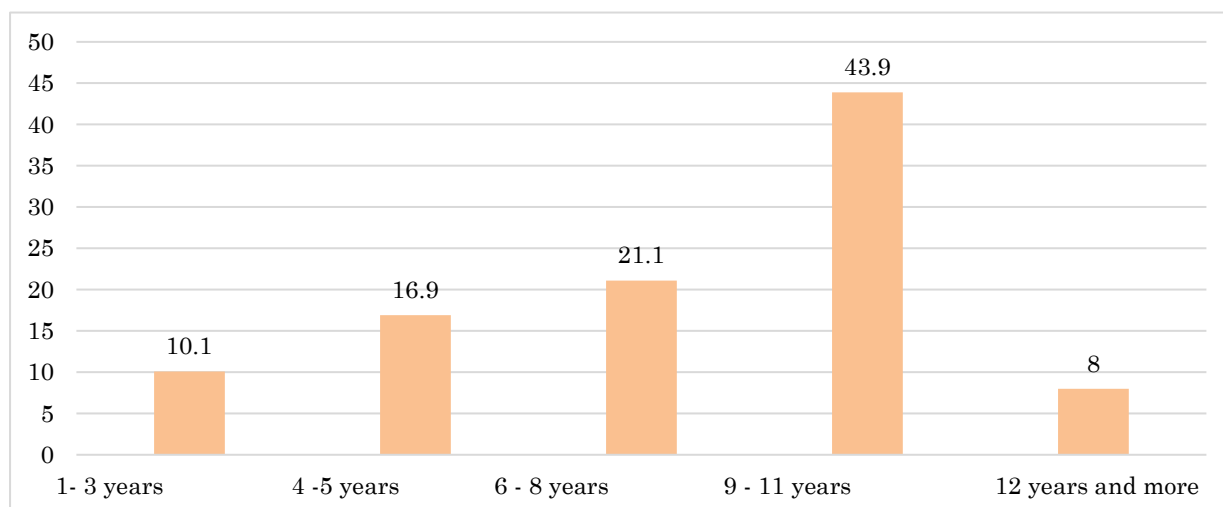

Figure 5. *Respondents' answers to the question: "How long do you think it will take for employees to introduce "trilingualism"?" (in percentage).*

Table 8 presents health service workers reaction to the state language on the Internet, including the quality of content in the Kazakh language - 80.0% its relevance - 82.0%, accessibility - 70.9%, clarity of content - 69.4%, frequency updates - 60.0% (satisfactory and partially calculated for many satisfactory answers). 27.9% of employees were not satisfied with the frequency of content updates in the Kazakh language.

Table 8. *Respondents' answers to the question: "How do you assess the state of the Kazakh language on the Internet?"*

Answer Options	Percentage
Content quality in Kazakh	
1. Satisfactory	41.0
2. Rather satisfactory than unsatisfactory	39.0
3. More unsatisfactory than satisfactory	6.6
4. Unsatisfactory	9.3
5. Other	3.6
Relevance of content in Kazakh	
1. Satisfactory	35.4
2. Rather satisfactory than unsatisfactory	46.6
3. More unsatisfactory than satisfactory	7.4
4. Unsatisfactory	6.6
5. Other	4.0
Access to content in Kazakh	
1. Satisfactory	28.9
2. Rather satisfactory than unsatisfactory	42.0
3. More unsatisfactory than satisfactory	14.7
4. Unsatisfactory	9.9
5. Other	4.6
Clarity of content in Kazakh	
1. Satisfactory	21.4
2. Rather satisfactory than unsatisfactory	48.0
3. More unsatisfactory than satisfactory	15.6
4. Unsatisfactory	10.0
5. Other	4.6
Content update frequency in Kazakh	
1. Satisfactory	17.0
2. Rather satisfactory than unsatisfactory	43.0
3. More unsatisfactory than satisfactory	17.0
4. Unsatisfactory	10.9
5. Other	12.1

Thus, health service workers are satisfied with the relevance of the content and the quality of content when assessing the state of the state language on the Internet, and are not satisfied with the frequency of content updates.

Figure 6 presents respondents reaction to the question whether there is a need to develop a state language on the internet. More than half of healthcare professionals believed that there is a need to develop the state language on the Internet, as the number of Internet users is growing day by day (51.0%); 35.1% believed that there is a need to develop high-quality and relevant content on the Internet in the Kazakh language; and 12% of employees answered negatively, stating that there are other important problems for society.
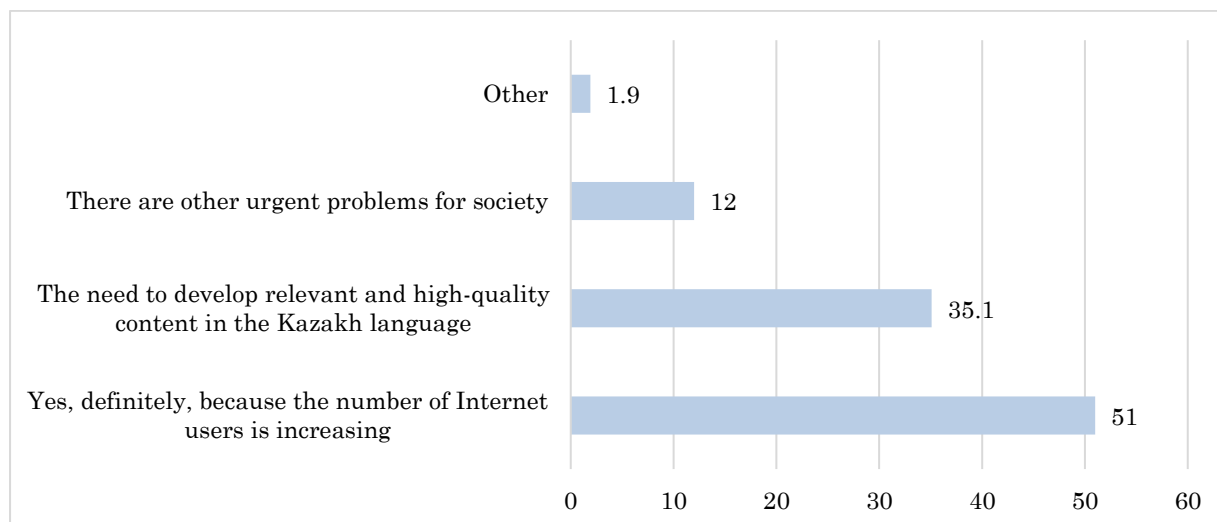

Figure 6. *Respondents' answers to the question: "Do you think there is a need to develop the state language on the Internet?" (in percentage)*

Thus, at present, according to healthcare workers, the development of content in the state language on the Internet is relevant and necessary.

- *The opinion of health workers on the relevance of the transition of the Kazakh alphabet into Latin script*

Figure 7 states the opinions of respondents to the issue of transition of the Kazakh alphabet to the Latin script. As a response, 57.7% of healthcare workers opined that translating the Kazakh alphabet into the Latin script is very important; it was partially relevant for 34.4%. The share of respondents who said that it does not matter was only 4.9%.
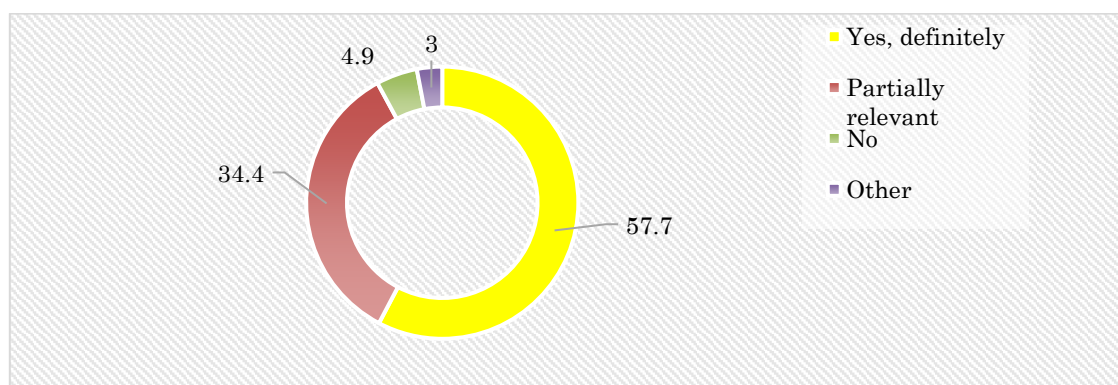

Figure 7. *Respondents' answers to the question: "In your opinion, is the issue of the transition of the Kazakh alphabet to the Latin script relevant at the present time?" (in percentage)*

Table 9 presents the opinion poll of the healthcare workers on the question about time required in the transition of the Kazakh alphabet to the Latin script. Most healthcare workers believe that it would take 9-11 years (43.0%) and 6-8 years (22.6%) to translate the Kazakh alphabet into the Latin script; 15.6% answered that it would take 4-5 years; 10.3% said 1-3 years; and only 8.6% said 12 years or more. Thus, the translation of the Kazakh alphabet into the Latin alphabet is considered as an issue carried out in the medium term.

Table 9. *Respondents' answers to the question: "How long do you think the transition of the Kazakh alphabet to the Latin script will take?"*

	Answer Options	Percentage
a)	1-3 years	10.3
b)	4-5 years	15.6
c)	6-8 years	22.6
d)	9-11 years	43.0
e)	12 years and more	8.6

In response to the question: "What do you think, how does the population feel about the transition of the Kazakh alphabet to Latin script?" - Table 10 presents the opinions of health professionals: 51.0% believed that this is supported by the majority of the population, and 43.7% were of the opinion that the transition had few supporters, 5.3% answered that no one supports the transition of the Kazakh alphabet to the Latin script in Kazakhstan.

Table 10. *Respondents' answers to the question: "What do you think, how does the population feel about the transition of the Kazakh alphabet to the Latin script in Kazakhstan?"*

	Answer Options	Percentage
A.	Majority supports	51.0
B.	Only a small part supports	43.7
C.	Nobody supports	5.3

Respondents were asked how often they used the Latin script in texts. Figure 8 exhibits the responses. In Kazakh texts, the Latin script is often used by half of health professionals (50.1%). The proportion of those who used it constantly is 22.4%, and those who use it occasionally is 20.7%. The share of answers "I rather do not use" and "Never used" is only 6.1%.
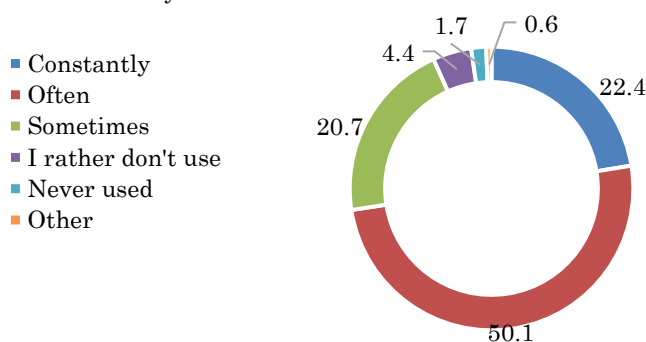
Figure 8. *Respondents' answers to the question: "How often do you use the Latin script in texts in the Kazakh language?" (in percentage)*

- *Development of the state language on the Internet*

Figure 9 gives the opinion of the respondents on the issue whether the Kazakh language was sufficiently represented on the Internet. A large majority (81.9%) believed that the Kazakh language was widely used on the Web.
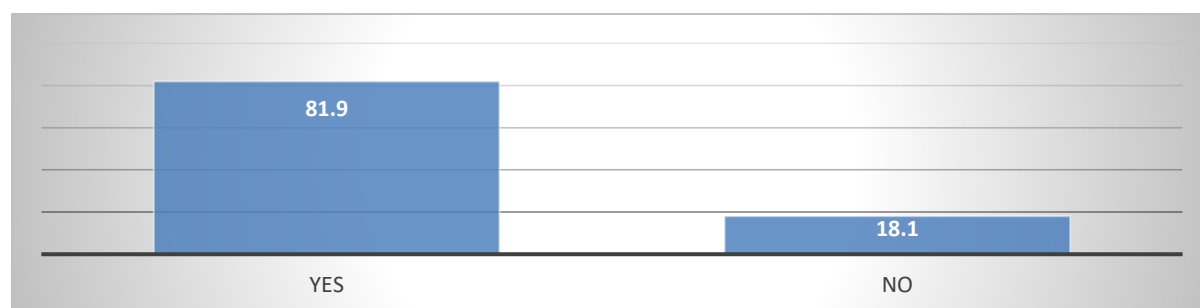

Figure 9. *Respondents' answers to the question: "In your opinion, is the Kazakh language sufficiently represented on the Internet?" (in percentage)*

Table 11 presents the assessment of the respondents of the level of information on the Internet in the state language on a 5 point scale of 1 to 5, with 5 being of very high level. Only 19% found the level of information relevant, 18.9% found the information presented in the state language on the Internet

accessible and only 9.9% found it complete at a "very high level ("5"). At a very low level, 24.1% rated the completeness of the information provided on the Web in the state language.

Table 11. *Respondents' answers to the question: "Please evaluate the level of information on the Internet in the state language, according to the criteria?" where "1" - "very low level", "5" - "very high level") (in percentage)*

	Answer options	" 1 "	" 2 "	" 3 "	" 4 "	" 5 "
A.	Completeness	24.1	25.3	11.0	11.6	9.9
B.	Relevance	7.6	26.4	12.0	16.9	19.0
C.	Availability	7.4	26.1	8.4	21.0	18.9

Figure 10 provides the responses to the question about the language mainly used to obtain information on the Internet. A majority of 42.6% health service workers opined that they most often used Russian to obtain information from the Internet; 26.6% used Kazakh and Russian and 24.9% used only Kazakh. The minimum use fell to the share of English at 5.9%.
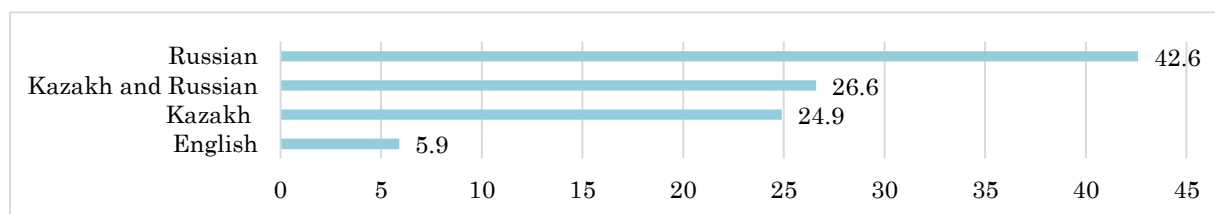
Figure 10. *Respondents' answers to the question: "What language do you mainly use to obtain information on Internet resources? (in percentage)*

Table 12 presents the information about the use of the specialized sites to learn the Kazakh language. A majority (51.0%) said they used Tilalemi.kz, while in second place was Atau.kz (32.9%). Tilmedia.kz had a low level of use (13.6%). The same resource is not used by themselves, but they said they have heard about it, 25.6%. 30.6% had not heard anything about Emle.kz.

Table 12. *Respondents' answers to the question: "Do you use specialized sites for learning the Kazakh language?" (in percentage)*

	Internet resource	Yes	No	I heard but didn't use their services	I didn't hear anything
1.	Tilalemi.kz	51.0	23.6	3.6	12.4
2.	Atau.kz	32.9	16.1	22.0	19.6
3.	Emle.kz	15.6	20.6	23.9	30.6
4.	Soyle.kz	17.0	19.9	24.7	29.0
5.	Tilmedia.kz	13.6	21.9	25.6	29.6

Figure 11 exhibits the satisfaction parentage of the healthcare workers with the presentation of visual information in accordance with literary norms in the texts of advertising (signboards, billboards, tickers, etc. a majority of 51.9% of healthcare workers were satisfied with the presentation of such visual information; 42.9% were (partially satisfied, 9.0% were fully satisfied. The level of dissatisfaction was 38.1% (partially dissatisfied - 15.1%, completely dissatisfied - 23.0%).
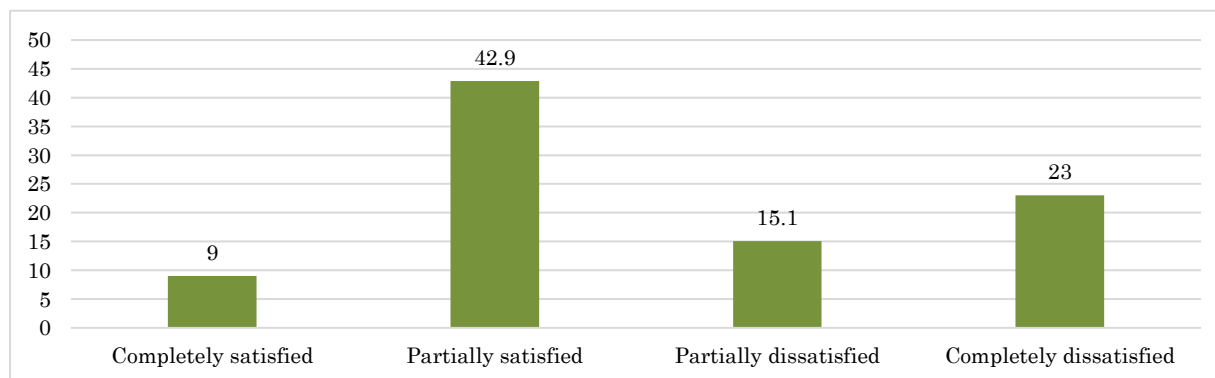
Figure 11. *Respondents' answers to the question: "How satisfied are you with the presentation of visual information in accordance with literary norms in the texts of advertising (signboards, billboards, tickers, etc.)?" (in percentage)*

Conclusion

This study has analyzed the Kazakh, Russian and English language skills of Kazakhstani residents and the problems related to acquisition of these languages, their use in various sociolinguistic domains, and the proficiency and the positions of languages in various linguistic environments. The healthcare professionals were asked several questions to assess the language situation in the Republic of Kazakhstan. They expressed a growing interest in the state language among industry specialists and an expansion of the scope. Most people speak or strive to learn the state language, Kazakh and Russian languages are used evenly in society. It was made evident in this study that health care workers are increasingly using the Kazakh language in their professional activities. The share of those who use the Russian language was 23.9%, and those who use the English language, only 1.4%. In professional activities, there are difficulties in the use of languages, which is due to the increase in the amount of content in the Kazakh language and the small number of employees who fully know the state language. In the health sector, the difficulty of workers in using the state language was the difficulty in filling out documents and few health workers who are fluent in the Kazakh language, the reasons for which may be the impact of training specialists in higher education in Russian.

In the performance of official functions by health workers, three main language issues were mentioned in the field of health care: first, the incorrect use of the Kazakh language in the industry (for example, when holding meetings or completing documentation); secondly, the low quality of professional literature used in the state language in higher educational institutions and colleges; thirdly, in the absence of generally accepted scientific terminology in the state language. About trilingual education in the Republic of Kazakhstan, healthcare professionals understand that this is a government program that aims to teach equal fluency in Kazakh, Russian and English in schools, colleges and universities. According to health workers, the need for a program for the development of trilingualism in the Republic of Kazakhstan is relevant, although there are difficulties associated with the implementation of the program.

The issue of translating the Kazakh alphabet into the Latin alphabet was also rated as very important by healthcare workers. Most healthcare workers believed that it would take 9-11 years to translate the Kazakh alphabet into the Latin script. In texts in Kazakh, the Latin script is most often used by half of the healthcare professionals. In the next question related to the development of the state language on the Internet, healthcare worker showed satisfaction, stating that it occurred on the Internet to a sufficient extent. When evaluating according to the criteria of the level of information provided in the state language on the Internet, health professionals assessed the relevance of information and accessibility at a very high level. More than half of health workers believed that there is a need to develop the state language on the Internet, as the number of Internet users is growing day by day, that there is a need to develop high-quality and relevant content in the Kazakh language. The health professionals also sated their satisfaction with the relevance of the content in the Kazakh language and the quality of the content in the Kazakh language when assessing the state of the state language on the Internet, and were not satisfied with the frequency of updating the content in the Kazakh language.

The study has very significant implications. It establishes that healthcare sector plays an important role in society; therefore, language should be one of the professional competencies of health service workers. The findings have proven that in the absence of proper communication and interaction with the population of healthcare workers, the quality of services is affected. Future studies are required to conduct a more comprehensive study of the linguistic situation in the field of healthcare in the Republic of Kazakhstan, to characterize the current state of healthcare in Kazakhstan and other extralinguistic factors affecting the verbal interaction of specialists in this field of activity.

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