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Research Insights
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SURVEYING THE LANDSCAPE OF SPEECH AND LANGUAGE THERAPY SERVICES FOR CHILDREN IN WARTIME UKRAINE

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Abstract. During wartime, understanding the impact on speech and language therapy services is essential, particularly for children, who are the most vulnerable in such situations. The study aims to determine changes in provision of speech and language therapy services during the active phase of war, examining speech disorder patterns, age distribution, service requests, and challenges faced. A descriptive cross-sectional survey was carried out using a semi-structured questionnaire. The data were analyzed with descriptive statistics, cross-tabulation, and the Kruskal-Wallis test. The study identified minor variations in speech disorders. Geographical variations underscore increased demand for speech and language therapy services, notably in the western part of Ukraine and rural areas. The survey highlights the critical need for knowledge and competences necessary when dealing with conditions like autism spectrum disorders, stuttering, and aphasia.

Keywords: speech and language disorders; speech and language therapy services; demand for speech and language therapy services; Ukraine

Introduction

War has a profound impact on many facets of people's lives, including physical and mental health. This impact also encompasses areas such as speech and communication, posing challenges for speech and language therapy as a professional field.

This indicates the necessity to examine the delivery of speech and language therapy (SLT) services during wartime, providing insight into the evolving patterns of speech disorders, the specific needs and requests of clients, and the challenges that speech therapists encounter in their professional practice amid the war.

Reviewing scientific literature has revealed that first research on speech disorders during wartime was conducted after World War II. Carhart (1943), Sokolowsky & Junkermann (1944), Peacher (1946), Corbin (1951) documented in their studies the increasing prevalence of language and voice disorders among soldiers and civilians in the aftermath of the war. Aphonia, dysarthria, dyslalia, and dysphasia emerged as the primary speech language disorders (Corbin, 1951; Peacher, 1947). Speech rehabilitation programs, particularly those employing group therapy, were reported to be effective means of addressing speech disorders. Peacher (1946) stressed the need to establish a speech clinic in army general hospitals to facilitate the recognition, development, and utilization of speech disorders in rehabilitation programs within the military. The importance of maintaining school and community speech services to enhance the availability of therapy was also discussed (Carhart, 1943). Armed conflicts also exert a significant impact on children (Drumbl, 2020; Machel, 1996). Statistics indicate that between 1% and 20% of English children had speech defects requiring treatment after World War II – Health of the School Child in War-time, 1948.

Within the contemporary international literature, only a small number of studies have examined needs in speech-language therapy and service provision in situations of conflict, displacement, or large-scale disruption, despite the scale of disability-related needs in such settings highlighted by Battle (2015).

A review of the literature identified a limited number of studies relevant to war-related and post-conflict settings. One of the few available studies was conducted in a mental health clinic in Lebanon identified 161 cases of communication disorders among Syrian refugee children over a 22-month period which couldn't have been referred to motor or structural causes, indicating a substantial burden of speech and language difficulties in the context of forced displacement, limited resources, and restricted access to specialised services (Salam et al., 2019). Jordan's (2003) practice-based case report on re-establishing children's speech-language therapy services in post-conflict Bosnia noted the migration of specialists as a key barrier and pointed to the need for targeted training and capacity building to restore service provision in a resource-limited setting.

Speech and language therapy in the context of the February 6, 2023 earthquakes has been the subject of two empirical studies carried out in Turkey. These studies provide more proof of how large-scale traumatic events affect children's communication development and the demand for speech-language therapy services. Demir and Şimşek (2025) presented results from a parent survey regarding the language and speech development of 145 children undergoing speech and language therapy. According to the study children with speech and language disorders experienced disruptions in language development associated with psychological stress and interruptions in educational and therapeutic processes in a crisis context. Another study by Birol et al. (2026) used a phenomenological design to examine

the professional experiences of 16 speech-language pathologists working in the aftermath of the earthquakes, based on semi-structured online interviews. The authors analyzed working conditions of speech and language therapists, shifts in clients' therapy status after the disaster, its psychological effects on both practitioners and their clients, and emerging needs related to emergency response.

A useful point of comparison for analyzing service continuity in times of crisis is provided by a survey carried out in Germany. Hackenberg et al. (2022) examined how SLT services for children with speech and language disorders were maintained during the COVID-19 lockdown. According to parent-reported data for 37 children, nearly half experienced a temporary halt in therapy during the lockdown. Children whose native tongue was not German experienced the disruptions more frequently.

The evidence base for Ukrainian research on this topic is still quite small, with only a few studies providing pertinent information. Skrypnyk and Lapenko (2022) investigated the impact of the war on children's speech in Ukraine. The results showed that children who witnessed the hostilities, had a range of communication problems. Their speech was characterized by difficulties in thought formulation, increased pauses, word-searching behaviors, verbal expressions of psychological difficulties, such as stress-related repetitive speech patterns and trauma-related verbalizations. These results further demonstrated the complex connection between children's speech development and stress brought on by conflict.

Apukhtina et al. (2023) conducted a qualitative study in 2022, based on interviews with ten Ukrainian speech therapists. The study looked at the practice of SLT for people with intellectual disabilities, including how therapy is organized, client-related adjustments, career obstacles, and emotional health during times of war. The authors outlined major challenges in setting up and maintaining SLT services.

Findings from both international and Ukrainian studies indicate that armed conflict, forced displacement, and large-scale crises are associated with growing speech and language-related needs and substantial disruptions to speech and language therapy services. However, research focused specifically on service provision during the ongoing war in Ukraine remains sparse and fragmented. The relevance of the current study is highlighted by the limited empirical evidence from the Ukrainian war.

Research Focus

The aim of the study is to determine what changes have occurred in the professional activity of speech therapists since the onset of the active phase of the war, in particular regarding the pattern of speech disorders, the age distribution of clients, the request for SLT services, as well as to understand what difficulties they face.

In particular, it was planned to answer the following research questions:

1. Do speech therapists observe changes in the pattern of speech disorders after the beginning of the active phase of the war?
2. Are there any changes in the age group of children who seek help from speech therapists after the onset of the active phase of the war?
3. Are there any differences in the demand for SLT services depending on the geographical location, type of settlement, and place of work of a speech therapist?
4. What difficulties did speech therapists face after the beginning of the active phase of the war and what kind of help do they need?

Instrument and Procedures

The descriptive cross-sectional survey method was used to conduct this study. For the purposes of the study, convenience non-probability sampling based on the availability of respondents was used. For data collection, a semi-structured questionnaire was employed. The data underwent processing through various statistical methodologies, including the calculation of frequencies and percentages, cross-tabulation, and the application of the Kruskal-Wallis test.

The questionnaire used to collect data consisted of 20 items organised into three content blocks and included different question formats. The first block covered respondents' background and professional context (gender, age, education, work experience, employment setting, region and settlement type, relocation and internally displaced status, and service delivery mode) and was assessed predominantly through single-choice questions. The second block addressed perceived wartime-related changes in professional practice and combined multiple-choice items (e.g., "What speech and language disorders do you most frequently encounter now?"; "What speech and language disorders did you most frequently encounter before the war?", with the list of disorders based on the ICD-10 classification) with Likert-type rating scales (e.g., "How has the demand for speech and language therapy services changed since the beginning of the full-scale war?", with response options "substantially decreased", "slightly decreased", "no change", "slightly increased", and "substantially increased"). The third block addressed speech therapists' professional challenges and support needs and used closed-ended questions with predefined response lists supplemented by an "Other (specify)" option (e.g., "What challenges have you faced professionally due to the war?"), alongside one fully open-ended item ("What specific professional knowledge/skills do you feel you need?").

Prior to incorporating the questionnaire into the study, preliminary testing took place, involving the participation of 8 experts in the field of speech and language therapy. They evaluated the compliance of the questionnaire questions with the research goal. To determine the internal consistency, the Cronbach's alpha coefficient was used, which showed the required level of internal consistency – it exceeded the recommended criterion of .700 for all scales.

The questionnaire was approved by the Education's Research Ethics Committee of Ternopil Volodymyr Hnatiuk National Pedagogical University, which ensures that the study adheres to ethical standards and guidelines for research involving people.

Throughout May to July 2023, the questionnaire was distributed via a Google Form within SLT groups on several social media platforms, including Facebook and Instagram. The questionnaire did not contain any personal identifiers other than the respondent's name to preserve the anonymity of respondents.

Data Analysis

To address *the first research question*, an analysis of frequencies and percentages was conducted based on responses to items assessing perceived changes in the prevalence of speech and language disorders before and during the active phase of the war. The answer options were based on the classification of speech and language disorders derived from the International Classification of Diseases, 10th revision (ICD-10), as presented by Ribtsun (2012).

To respond to the second research question, frequencies and percentages were calculated to analyse items assessing changes in the age distribution of service recipients following the onset of the active phase of the war compared to the pre-war period. Responses were grouped into four predefined age categories: "0 – 6 years", "7 – 12 years", "13 – 18 years", "18 years and older".

For a response *to the third question* of research, the collected data were analyzed by performing a frequency analysis using cross-tabulation. The Kruskal-Wallis test was conducted to assess whether demand for SLT services depends on the geographical location, type of settlement, and workplace of the speech therapists. The non-parametric test was taken as the data did not meet the assumptions of normality tested with the Shapiro-Wilk test and equality of variances tested with Levene's test. Following the Kruskal-Wallis test, post-hoc analyses were performed to identify which specific groups showed significant differences in demand. The significance level in all statistical tests was set at .05. Data were analyzed using SPSS (release 22).

The independent variables for this question were defined as geographical location, type of settlement, and place of employment. The variable "geographical location" included options corresponding to different regions within the country as well as "outside Ukraine". For the "type of settlement" variable, participants were provided with a range of choices representing various types of settlements, starting from village and encompassing different sizes of towns and cities up to metropolis. The grouping of respondents based on the variable "place of employment" was carried out using the thirteen categories, that encompass the entire spectrum of possible employment settings for speech therapists in Ukraine. The dependent variable was speech

therapists' assessment of the request for their services. It was measured on a 5-point Likert scale with endpoints of "significantly decreased" (1) to "significantly increased" (5).

The interpretation of these variables was informed by the World Health Organization's International Classification of Functioning, Disability and Health (ICF), which was used to conceptualise geographical location, settlement type, place of employment, displacement-related mobility, and service delivery mode as environmental factors shaping access to, availability of, and continuity of speech and language therapy services under wartime conditions4).

For the analysis of *the fourth research question*, frequency analysis was used to examine responses to the survey questions regarding the difficulties the speech therapists encountered after the beginning of the active phase of the war and what kind of help they needed. When answering the former of these questions, respondents could choose from five suggested answers or provide their own. The latter question was open-ended, and respondents had the opportunity to provide their own answer choices.

Sample

The sample consisted of 344 respondents, with 343 women and 1 man. This distribution generally reflects gender characteristics in the profession of speech therapy in Ukraine.

Table 1. Distribution of respondents by age and geographic location

Age			Geographic location		
	Frequency	**Percentage**		**Frequency**	**Percentage**
18 – 27	46	13.4%	Eastern Ukraine	20	5.8%
28 – 37	91	26.5%	Central Ukraine	74	21.5%
38 – 47	119	34.6%	Southern Ukraine	45	13.1%
48 – 57	77	22.4%	Northern Ukraine	95	27.6%
58 – 67	11	3.2%	Western Ukraine	97	28.2%
			Outside Ukraine	13	3.8%
	344	100%		344	100%

Table 1 shows the distribution of respondents by age and geographical location. The largest proportion of respondents were aged 38 – 47 years (34.6%), followed by 28-37 years (26.5%) and 48 – 57 years (22.4%). Smaller shares were observed in the 18 – 27 (13.4%) and 58 – 67 (3.2%) age groups. The mean age of respondents was 40 years (SD = 10).

In terms of geographical location, the largest number of surveyed speech therapists (28.2%) were located in the western part of Ukraine (Lviv, Ternopil, Ivano-Frankivsk, Volyn, Rivne, Khmelnytskyi, Chernivtsi, and Zakarpattia oblasts). 27.6% were based in the northern (Zhytomyr, Kyiv, Sumy, and Chernihiv oblasts) and 21.5% – in the central parts (Vinnytsia, Kirovohrad, Dnipropetrovsk, Kropyvnytskyi, Poltava, and Cherkasy oblasts) of the country. A lesser percentage of speech therapists were residing in the southern (Zaporizhia, Kherson, Odesa, and Mykolaiv oblasts) and eastern regions (Kharkiv, Donetsk, and Luhansk oblasts) of Ukraine – 13.1% and 5.8% respectively. 3.8% of respondents were abroad at the time of the survey.

Most of the respondents (91%) have completed a master's or specialist's degree, while a significantly smaller proportion own bachelor's (7.3%), Ph.D. (1.5%), and junior bachelor's (0.3%) degrees. Furthermore, 44.5% of respondents under the study have more than 10 years of work experience, 26.7% have 1 – 5 years of work experience, 21.8% – 5 – 10 years, and 7% have been in the service for less than 1 year.

The largest number of respondents were employed in a special or combined preschool education institution (24.1%), followed by a secondary education institution (18.6%). A significant number of speech therapists under survey worked in SLT units within the framework of general secondary education (15.5%) and inclusive resource centers (11.6%). The former delivers specialized speech-related aid, while the latter offers a more extensive array of support services for individuals with diverse impairments, encompassing speech and language disorders, within an inclusive educational environment. A smaller number of respondents worked in a private sector setting – 8.7% and 7.6% were founders of their own companies. 5.8% of respondents represented hospitals, and 4.4% – special secondary education institutions. Out of 344 respondents, 1.4% were not employed.

Furthermore, it should be noted that 23.8% of speech therapists had to change their place of residence after the onset of the active phase of the Russian-Ukrainian war for safety reasons, but they have now returned to their homes. 12.2% of survey participants still haven't returned home. 42% of participants have the status of internally displaced persons. 54.4% of speech therapists who participated in this study provide in-person services, 5.8% work online, and 39.8% combine both options.

Results

The *first research question* aimed to identify whether speech therapists observe changes in the prevalence of speech disorders in children after the beginning of the active phase of war.

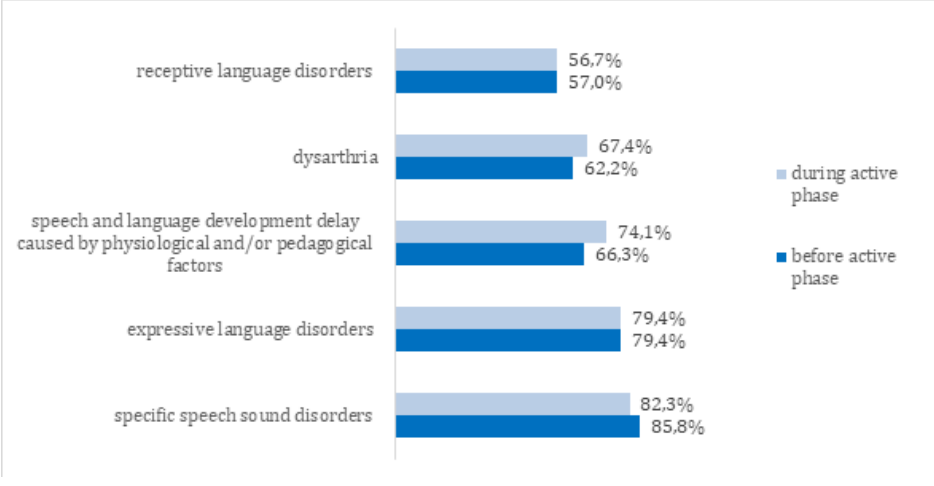


Figure 1. Changes in the most prevalent speech and language disorders before and during the active phase of war in children based on survey data from speech therapists

The data from Figure 1 indicate that the most common speech disorders in children before and after the active phase of the war were specific speech sound disorders, expressive language disorders, speech and language developmental delay due to physiological and/or pedagogical factors, dysarthria, and receptive language disorders. During the active phase of the war, the top five most common disorders remained unchanged, but there were minor changes in their prevalence. According to the estimates of the surveyed speech therapists, the percentage of clients with specific speech sound disorders decreased (from 85.8% to 82.3%), and the percentage of clients with receptive language disorders also decreased (from 57.0% to 56.7%). At the same time, the number of children with speech and language development delays caused by physiological and/or pedagogical factors has increased (from 66.3% to 74.1%), as well as with dysarthria (from 62.2% to 67.4%). The frequency of client requests for expressive language disorders remained consistent at 79.4%.

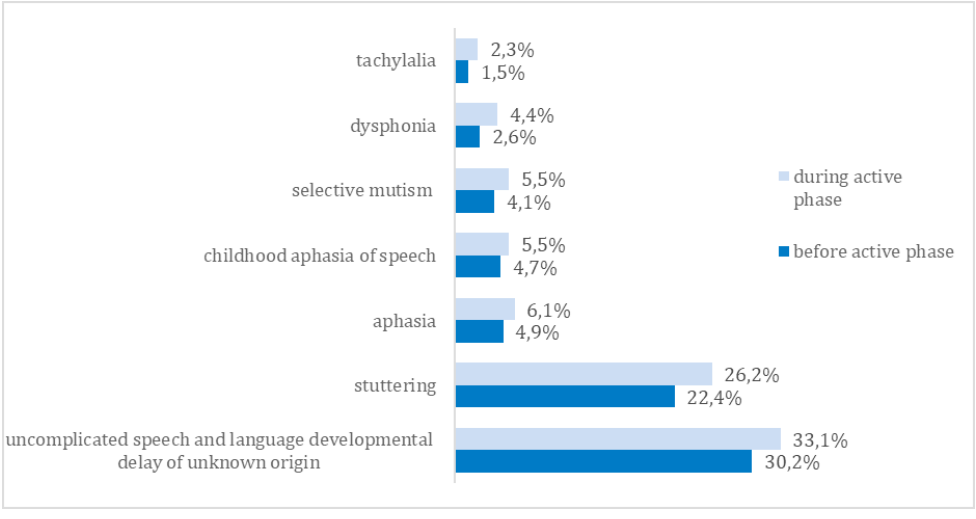


Figure 2. Prevalence increase in speech and language disorders in children before and during the active phase of war based on survey data from speech therapists

In Figure 2, respondents' estimates suggest that there have been specific changes in the composition of less common speech disorders over time. In particular, the most noticeable changes relate to the increase in the number of cases with stuttering – from 22.4% to 26.2% and with uncomplicated speech and language developmental delay of unknown origin – from 30.2% to 33.1%. There is also an increase in the spread of other speech disorders, such as dysphonia (from 2.6% to 4.4%), selective mutism (from 4.1% to 5.5%), aphasia (from 4.9% to 6.1%), childhood aphasia (from 4.7% to 5.5%), and tachylalia (from 1.5% to 2.3%).

Overall, when considered within the ICD-10 framework, the reported changes are related to specific speech and language developmental disorders, childhood behavioral and emotional disorders like stuttering and selective mutism, and speech and voice disorders like dysphonia, dysarthria, and aphasia. This pattern suggests that the increase is reflected across different domains rather than concentrated within a single type of disorder.

The *second research question* aimed to find out if there are changes in the age distribution of children who receive SLT services.

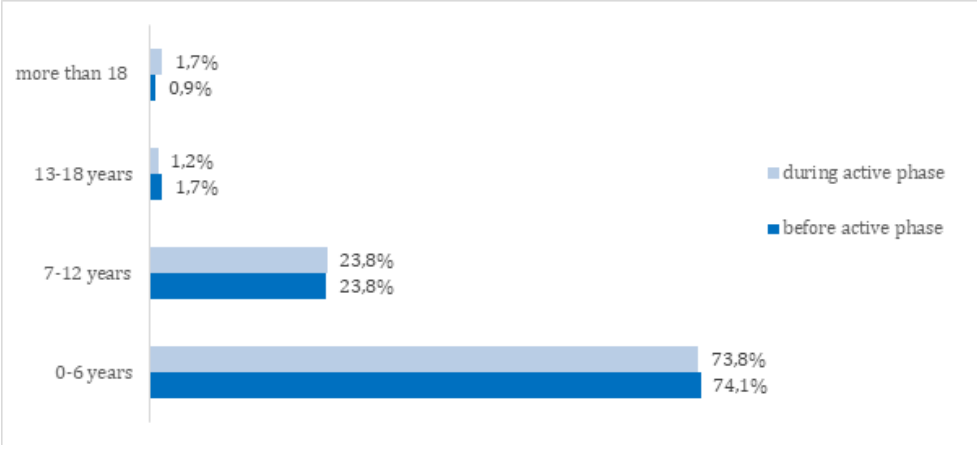


Figure 3. Age fluctuations in recipients of SLT services before and during the active phase of war based on survey data from speech therapists

As depicted in Figure 3, the age of children receiving services from speech therapists remained consistent throughout the active phase of the conflict and before it, with no significant changes observed.

The third question asked whether there are differences in demand for SLT services based on geographical location, type of settlement, and the speech therapist's place of employment.

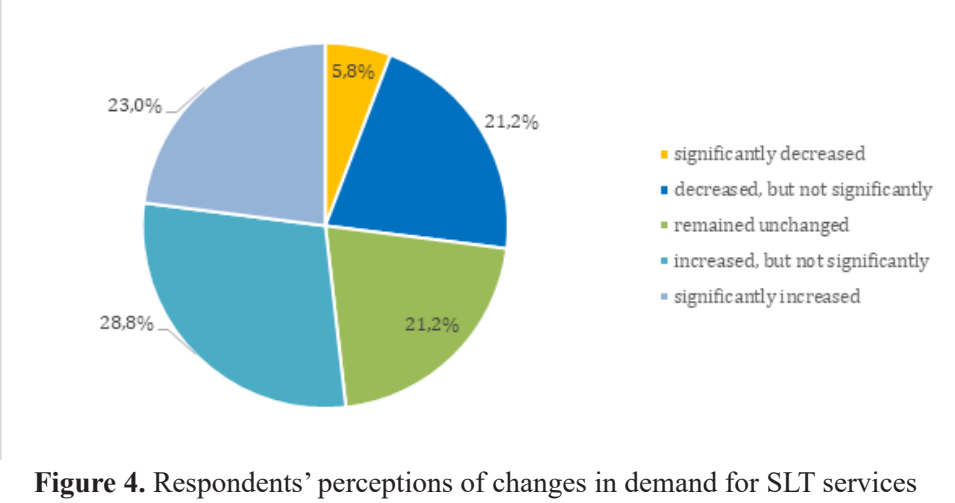


Figure 4. Respondents' perceptions of changes in demand for SLT services

As Figure 4 shows, the majority of respondents (28.7%) believe that the demand for their services has increased, but not significantly. 23% said that it has increased significantly, 21.2% believe that it has not changed, another 21.2% – that it has decreased, but not significantly, and 5.8% – that it has significantly decreased.

A Kruskal-Wallis test shows that there were statistically significant differences in the demand for SLT services based on the geographical location of the speech therapists ($H(5) = 31.684$, $p = 0.000$). A post-hoc Dunn's test showed significant differences in demand for SLT services between the west and south of the country ($p = 0.000$), as well as between its northern and southern parts ($p = 0.000$).

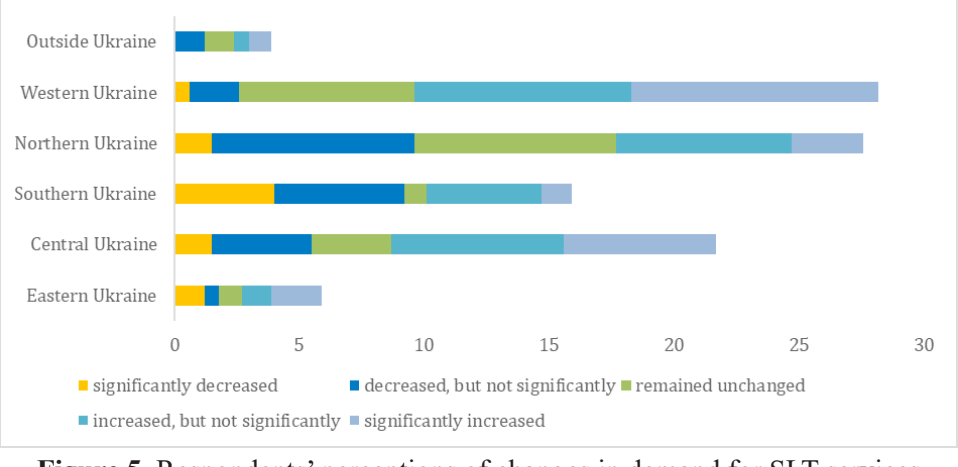


Figure 5. Respondents' perceptions of changes in demand for SLT services

Figure 5 illustrates that the greatest increase in demand is observed for SLT services in the western part of Ukraine. 8.77% of respondents located in the western part of Ukraine believe that the demand for SLT services has increased, but not significantly, and 9.88% of respondents consider this growth significant. These indicators are the highest among all groups of respondents identified by geographical criteria and demand estimates. At the same time, only 1.16% of respondents located in the south of the country consider the growth in demand for their services to be significant.

It was also found that there are significant differences in the demand for SLT services depending on the type of settlement ($H(6) = 16.321$, $p = 0.012$) based on the results of the Kruskal-Wallis test. As the results of the post hoc test showed, there are significant differences between metropolises and village ($p = 0.024$) and metropolis and small town ($p = 0.039$).

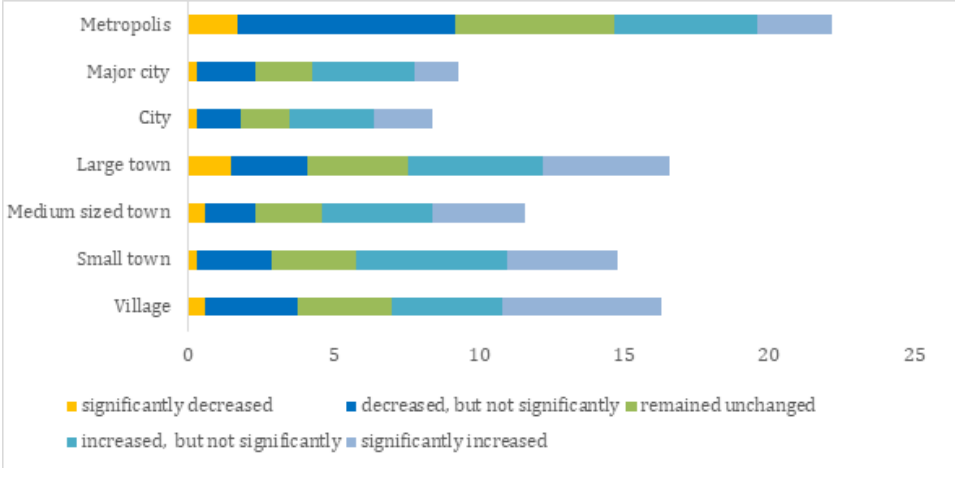


Figure 6. Respondents' perceptions of changes in demand for SLT services

Figure 6 shows that the largest increase in SLT services is observed in rural areas. This assessment was provided by 5.52% of respondents, which is the largest number of all groups of speech therapists identified by the criterion of the type of settlement in which they live. At the same time, speech therapists who provide services in metropolises noted that there is a decrease in the request for their services, although it is insignificant. In general, this assessment was provided by 7.55%, which represents the highest value across all responses.

Also, the results of the Kruskal-Wallis test indicated that there are significant differences in the demand for SLT services depending on the place of work of speech therapists (H (13) = 39.368, p = 0.000). Post-hoc pairwise comparisons indicated a significant difference between the demand for SLT services in a special or combined preschool institution and speech therapy center (p = 0.017) and a special or combined preschool institution and inclusive resource center (p = 0.005).

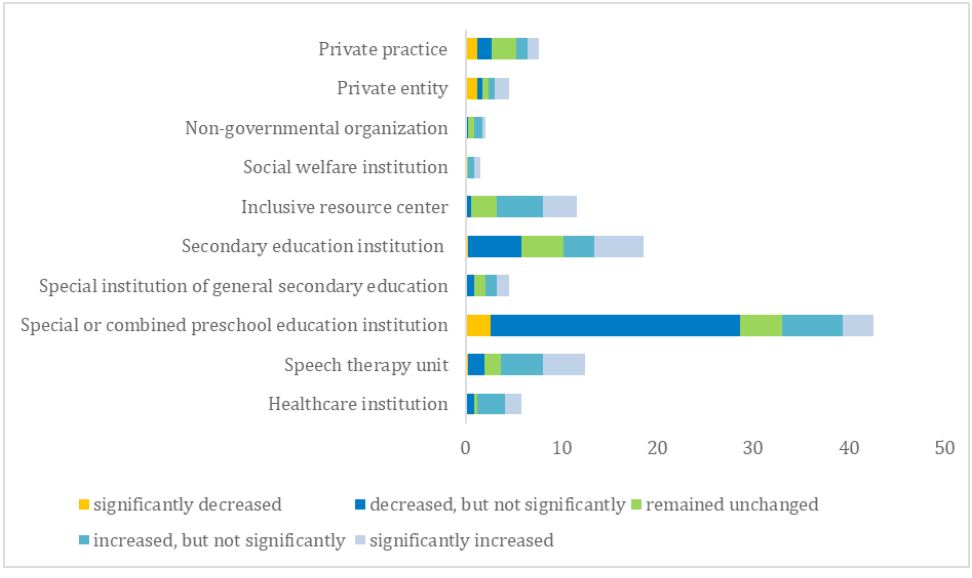


Figure 7. Respondents' perceptions of changes in demand for SLT services

Analysis of responses shown in Chart 7 indicates that among speech therapists working in speech therapy units (8.7% of the sample), most reported an increase in demand for their services: 4.4% indicated a slight increase and 4.4% a substantial increase. The situation is similar for specialists in inclusive resource centers: 17 respondents (4.9%) rated the increase in demand as insignificant, and 12 (3.4%) as significant. At the same time, the majority of speech therapists surveyed in special or combined preschool institutions (7.5%) believe that demand has decreased, although not significantly.

The fourth research question asked what difficulties speech therapists encountered after the start of the active phase of the war and what assistance they needed. The question was designed with a non-mandatory response format, resulting in 153 (44.4%) out of 344 respondents providing answers.

Table 2. Distribution of responses regarding challenges in professional activities due to war

	Frequency	**Percentages**
Increased physical and psycho-emotional stress due to an increase in the number of children, including those with complex speech disorders	38	24.8%
The need to start a professional activity in a new place due to internal displacement	72	47%
Deterioration of the financial situation associated with the loss of clients due to moving to another place of residence	12	7.8%
Deterioration of working capacity due to complicated psycho-emotional condition caused by war-related events	14	9.1%
There are no problems	4	2.6%
Other	13	8.4%
Total	153	100%

As can be seen from Table 2, most of the respondents (47%) were faced with the need to start a professional activity in a new place due to internal displacement. 24.8% experienced an increase in physical and psycho-emotional stress due to an increase in the number of children, including those with complex speech disorders. And finally, the third position in terms of the number of responses chosen (9.1%) was attributed to a decline in work efficiency due to a complex psycho-emotional state resulting from events related to the war. A smaller number of respondents' responses related to the deterioration of the financial situation as a result of moving to another place of residence (7.8%) and other problems (8.4%). Only 2.6% of speech therapists surveyed did not face any difficulties after the war began.

Table 3. Distribution of responses regarding knowledge needed during wartime

Knowledge related to SLT		**Frequency**	**Percentages**
		122	72.1%
	Therapy for aphasia in children and adults, including that resulting from acquired injuries	24	19.6%
	Stuttering	20	16.3%
	Speech development in children with autism spectrum disorders	19	15.5%

	Speech therapy massage	12	9.8%
	Therapy for non-verbal children	4	3.2%
	Selective mutism	3	2.4%
	Other	40	32.8%
Psychological knowledge		29	17.1%
Conducting classes online		17	10%
Labor legislation		8	4.9%
Other		20	11.8%
Total		169	100%

As shown in Table 3 data, in response to the optional question of the survey regarding the specific professional knowledge and skills they require, 169 respondents provided an answer, which constitutes 49.1% of the total number of respondents. The largest number of respondents (72.1%) need knowledge related to speech and language therapy, in particular for working with children and adults with aphasia (19.6%), stuttering (16.3%), speech development in children with autism spectrum disorders (15.5%), speech therapy massage (9.8%), working with non-verbal children (3.2%), selective mutism (2.4%). In addition, respondents listed a wide range of other speech-disorder topics, each mentioned by less than 1% of participants, but collectively accounting for 32.8% of responses. Significantly, 17.1% of the responses indicated a need in psychological knowledge, in particular, knowledge of how to work with children who have experienced traumatic events and skills to stabilize their own psycho-emotional state. 10% of the surveyed speech therapists need to master the skills of conducting online classes, in particular, mastering online conferencing tools, adaptation of in-person techniques for online sessions, motivation, and sustaining a child's interest during online sessions. Also, 4.9% of speech therapists said that they would like to improve their knowledge related to the legal framework to support the organization and operation of SLT services.

In the quest to understand the key steps required for ensuring access to high-quality SLT services during times of conflict, this study also explores the insights gathered from respondents' answers to a survey. The results revealed several significant priorities. A substantial majority (58.5%) of respondents, stressed the importance of providing free training programs to enhance the skills of speech therapists working with children affected by war and veterans. For the compensation of the costs associated with SLT services for military personnel and those who have experienced conflict advocated 11.4% of respondents. 12.7% endorsed the idea of increasing government funding for higher education institutions to train more speech therapists, thereby expanding service availability. Furthermore, 5.7% of participants highlighted the value of volunteer initiatives by SLT professionals

as a means to improve service access. In a smaller fraction, 3.8% of respondents suggested the engagement of foreign experts in the field of speech and language therapy. Lastly, a significant percentage, totaling 19.1% of responses, consisted of various other suggestions. These encompassed initiatives like opening more speech therapy units in schools, improving their material and technical support, including educational materials and equipment, and enhancing the compensation for speech therapists working in public institutions.

The research findings indicate shifts in demand for SLT services, the challenges that speech therapists encounter, and the specific needs they have in the context of wartime conditions. They provide a foundation for a discussion of their implications across the four research questions explored in this study.

Discussion

The survey findings raise several key points for discussion regarding the provision of SLT services in Ukraine during wartime.

The first research question addressed changes in the prevalence of speech and language disorders in children following the onset of the active phase of the war. The findings indicate that the overall structure of the most frequently reported speech and language disorders remained stable, although their relative proportions shifted. Slight decreases were observed in specific speech sound disorders and receptive language disorders, whereas speech and language developmental delay due to physiological and/or pedagogical factors and dysarthria were reported more frequently. In addition, several less prevalent disorders, including stuttering, selective mutism, dysphonia, aphasia, childhood aphasia, and tachylalia, showed increased reporting. Overall, the data suggest that wartime conditions are associated with shifts in the relative distribution of speech and language disorders across several diagnostic groupings. However, the results do not permit conclusions about direct causal relationships, nor do they allow estimation of prevalence at the population level.

Furthermore, the study highlights the war's impact on children's speech disorders in the short term. However, it may manifest with delayed effects, and an increasing number of children might experience speech disturbances as the conflict persists. This aligns with the findings of Skrypnyk and Labenko (2022), underscoring the intricate and enduring connection between the psychological impact of war and speech disorders in children. A comparable pattern has been reported in studies conducted in other humanitarian contexts, where speech and expressive language disorders constituted the most prevalent categories of communication difficulties among conflict-affected children, alongside an increase in stress-related speech manifestations (Salam et al., 2019). Similar delayed or cumulative effects on communication development have been described among children affected by forced displacement and disaster-related trauma in other crisis contexts (Demir & Şimşek, 2025).

The second research question, examining the age of children receiving SLT services, revealed a consistent pattern throughout the active war phase. Research findings revealed no significant changes in the age distribution. The most plausible explanation could be that speech and/or language challenges triggered by the war may not exhibit significant variations based on age, resulting in a uniform demand for SLT services. None of the sources we looked at showed a clear connection between a child's age and speech issues. However, according to Battle (2015), the vulnerability of children to speech disorders as a consequence of traumatic influence is more closely associated with the presence of disabilities than their age.

The third research question investigated variations in demand based on geographical location, settlement type, and the speech therapist's place of employment. Interpreted within the ICF, the observed differences indicate the co-existence of facilitating and constraining environmental conditions shaping access to speech and language therapy services during wartime.

The higher demand in western regions and rural areas is mainly linked to the forced relocation of families with children to safer places. In rural communities, this growth in demand occurred despite limited local service availability, indicating an accumulation of unmet needs resulting from the concentration of displaced families. In this context, internal displacement serves as an environmental factor that increases the demand for speech and language therapy services. At the same time, it uncovers structural barriers to accessing care. In contrast, the decreasing demand in southern regions and urban areas highlights the existence of environmental obstacles related to security risks, workforce displacement, and lower institutional capacity.

Variation in demand by place of employment highlights an institutional dimension of environmental influence. The higher demand seen in inclusive resource centers reflects their role in providing coordinated, multidisciplinary support for children with special educational needs. This positions these centers as key providers of access to speech and language therapy services. This institutional specificity may partly account for differences in service requests across educational settings and reflects variation in how children's needs are addressed within the educational support system under wartime conditions (Horishna & Slozanska, 2023).

The fourth research question focused on the challenges faced by speech therapists and the assistance they required during the active war phase. The responses underscore the multifaceted difficulties, with internal displacement emerging as the most frequently reported challenge, followed by elevated psycho-emotional stress and, to a lesser extent, financial strain. The reported professional challenges further illustrate the central role of environmental conditions in shaping service provision. From an ICF-informed perspective, these challenges can be understood as system-level contextual factors that constrain service capacity and continuity, thereby indirectly limiting children's opportunities to receive timely and adequate speech and language support.

This pattern matches the qualitative findings reported by Apukhtina et al. (2023). They found that speech therapists experienced system-level disruptions, challenges in organizing therapy, and emotional stress during the early phase of the full-scale war in Ukraine. Similarly, research from disaster situations shows that speech-language pathologists face multiple challenges. These include disrupted working conditions, interruptions in therapy processes, and increased psychological pressure (Birol et al., 2026). In Ukraine, these challenges are made worse by the high number of people displaced inside the country, along with the migration of both professionals and families. This situation adds to the existing environmental pressures on the ability to provide speech and language therapy services during wartime.

In terms of support needs, the Ukrainian survey shows a strong demand for focused professional training in specific speech and language disorders, along with psychological support and skills for providing remote services. This pattern matches the findings of Birol et al. (2026). Their research documented post-disaster needs related to trauma-focused professional training, a rise in teletherapy use, and psychosocial support for speech-language pathologists working in crisis conditions.

The discussion of these findings encourages a deeper look at how the wartime context affects SLT services. Potential factors influencing prevalence, age patterns, demand, and challenges faced by professionals should be further investigated to improve our understanding of the complexities surrounding SLT provision in war-affected regions.

Limitations of the Study

The results of this study should be viewed carefully due to several limitations. The main issue is the use of convenience sampling, which may affect how widely the findings apply. The cross-sectional design provides only a limited view of the war period. All data were self-reported by respondents, which could lead to subjectivity and bias in their answers. Focusing only on speech therapists restricts the inclusion of other professionals who work with children, such as teachers, psychologists, and parents. The gender imbalance towards female respondents may skew gender-specific findings. Despite these limitations, the research provides useful insights into the challenges faced by speech therapists during wartime.

Conclusion

The study provides valuable insights into speech therapists' views on changes in demand for SLT amid the ongoing war in Ukraine. The differences in perceived demand across various settings show how geographical location, type of settlement, and place of work affect this need. This emphasizes the importance of planning services based on specific areas. In particular, the higher perceived increase in demand in rural areas indicates the need to prioritise locally tailored

service-planning decisions rather than uniform solutions. In the short term, as an immediate response to wartime service disruption, the primary actions should be implemented at the community level. Communities should assess local demand and align it with available service capacity by mapping the number and profile of children requiring support, the availability of speech therapists, and feasible delivery settings. Where shortages of qualified specialists persist, communities may rely on flexible arrangements such as redistributing workloads across existing service providers and institutions, engaging speech therapists from neighbouring communities on an hourly or part-time basis, expanding group-based intervention formats when clinically appropriate. In addition, online and hybrid delivery models can help maintain access to therapy for children in remote rural areas where in-person provision is limited.

In the longer term, the results point to the need for more systemic solutions at both national and local levels. At the state level, this implies strengthening national workforce planning and the continuing professional development system to address shortages of speech therapists and wartime-related shifts in service needs. In practice, this includes ensuring accessible short-term upskilling and longer-term continuing professional development programmes for practising clinicians, designed on the basis of documented competency gaps and emerging clinical demands, including work with acquired communication disorders, trauma-related communication difficulties, and the provision of remote and hybrid services.

At the community level, a long-term response requires more sustainable workforce development mechanisms. This includes locally funded training options through community scholarships or specific tuition support for future speech therapists connected to jobs in the community. It is also important to improve coordination across education, health, and social service sectors. This will help create more stable and integrated services during extended crises and in the recovery period after the war.

Further research is also needed to track changes in children's speech and language development across wartime and post-war periods, particularly through longitudinal studies that can identify delayed and cumulative impacts of conflict.

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NOTES

1. Reuters, 2023.
2. Ukrainian refugee crisis (2022-present), 2023.
3. Brand Ukraine NGO, 2023.
4. World Health Organization, 2001.

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