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Speech Therapy Interventions for Children in Kyrgyzstan: Current Practices, Challenges, and the Role of Speech Therapists

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ABSTRACT

Communication is one of the most potent skills associated with child development. It will determine how they think, learn, interact, and express themselves. A child facing difficulties associated with speech or language, for example, unintelligible speech, delayed language development, or issues with fluency, may subsequently suffer from adverse impacts on academic performance and social confidence. Speech therapy in such a situation becomes very essential. It is a kind of organized intervention, which will ultimately help children develop the skills necessary for effective communication

A systematic literature review was conducted for this study using databases such as PubMed and Scopus using keywords such as speech therapy, disorders, children, etc. Around 21,000+ articles were identified initially. After applying inclusion and exclusion criteria, approximately 20–30 relevant studies were selected for final analysis.

We also conducted a little survey with this study to look at the different settings in which children receive speech therapy services. From our survey, we received about 76 responses; we asked several questions, one of which was where children usually received speech therapy. The results showed that children receive therapy from various sources, including government institutions, private services, online clinics and platforms, and community-based settings.

KEYWORDS

Speech Therapy, Speech affected children, Kyrgyzstan speech therapy, Communication disorders in Kyrgyzstan, Speech therapy intervention

INTRODUCTION

Kyrgyzstan particularly does not have official nationwide data on the count of people for whom speech therapy is required, but an estimate can be made through global prevalence rates. With an overall population of about 7 million globally, which includes 2.1 million children and determining 5-10% of children typically have speech and language disorders, about 105,000 to 210,000 Kyrgyzstan's children need speech therapy.

For many years, difficulties like stammering and delays while speaking were treated in mostly a medical and hospital-based way, as it's a physical illness, in Kyrgyzstan, helping the children finding their voice is a journey in between new approaches and old patterns. But, as of now, more all-encompassing schools in cities such as Bishkek and Osh are being developed in which they brings children with speech challenges together in classrooms and young speech therapists are proceeding with play-based styles from emphasizing inflexibility while focusing more on communication based therapy prioritizing every affected child to be heard and not just sounding perfect.

However, a lot of extreme difficulties hang over this new approach: Kyrgyzstan consists of beautiful towering mountains but it does create geographical difficulties. If a therapist isn't available in a big city, being helped is extremely difficult. Affected ones in remote village areas don't have or have almost no speech therapists available in their neighborhoods and that is one of the biggest difficulties for them making the affected ones entirely depend on their guardian's finances or their adjacency towards capital or any cities. After that if an affected child is able to find a therapist they may come across cases where the perspective

of teachers, doctors, and therapists can be different and it might make them feel disconnected or discouraged while progressing. It may also leave parents/guardians overwhelmed and confused and might affect the process of treatment of diagnosis for years while the absolute time for a child's recovery slowly gets to close.

My point of view can bring something very new to the topic, if we encourage the elders/guardians/parents and local community members and train them to act as first line support. As there are no huge numbers of therapists yet to counter the cases in person, we can focus a slightly more on tele-coaching through which a specialist can guide the caretakers, communities, parents and guardians located in remote villages or unreachable areas via a smartphone and I believe it will help the ones not having resources for being able to be available in person. Instead of sticking to the incorrect ways/patterns the current system has, we can innovate and generate more and more ideas and strategies for helping the ones in need. If we educate and give the necessary tools to caretakers/guardians of the affected ones for helping them at home, it can reduce the cost and might bypass the expensive clinics and can bring a more effective approach and new standards for supporting the people based in most isolated parts of Kyrgyzstan.

METHODOLOGY

The data for this study will be collected through a Google Survey Form distributed via WhatsApp, social media platforms, and email to reach a diverse group of participants. Participation is voluntary, and respondents may withdraw at any time without any consequences.

Prior to data collection, a comprehensive background review was conducted using reputable research databases such as PubMed, Scopus, and MEDLINE with Keywords (Speech Therapy, Speech affected children, Kyrgyzstan speech therapy, Communication disorders Kyrgyzstan, Speech therapy intervention) to ensure the scientific validity and relevance of the study. All collected data will be used solely for research purposes, kept confidential, and analyzed in aggregate form to protect participants' identities.

RESULTS

1. Multiple Choice Questions (MCQs)

The multiple-choice questions evaluated the basic features of practicing speech therapy as well as the availability and attitudes toward pediatric speech-language services in Kyrgyzstan. According to the responses, presence of speech therapy services may be there but not uniformly. These services are more in urban areas as compared to rural.
The respondents believe the most common conditions for which children are being treated are speech delay, articulation disorders and language delay. Neurodevelopmental conditions like autism spectrum disorder and hearing impairments were recorded, but less so, perhaps indicating an underdiagnose or limited access to specialized services.

With respect to settings of intervention, the most common report by participants is that therapy takes place in clinical/hospital-based settings followed by schools and private centres. Home-based therapy was reported less often than expected, indicating limited family-centered approaches.

When gauging awareness, most of the respondents believed that the public does have a fairly moderate awareness speech therapy has low awareness particularly parents from rural areas. This unawareness is considered as a primary hindrance to early diagnosis and the intervention of things.

One more important finding was that of professional roles. A lot of people acknowledged how a speech therapist is a vital member of multidisciplinary teams but there was some variation in the understanding of their full role. Some participants see that therapy is only for speech correction and not for communication and swallowing disorders.

Furthermore, findings revealed that referral and diagnosis delays are common, meaning that early intervention services may not always be available. Pediatric health care pathways reflect systemic gaps.

The results of MCQ suggest that although speech therapy services exist, there are significant inequalities regarding access, awareness, and delivery models of speech therapy services, leading to poor early identification and intervention.

	DOMAIN	RESPONSE	n (Freq)	%	
	Common Disorders	Speech Delay	18	36%	
		Articulation Disorder	12	24%	
		Language Delay	14	28%	
		ASD / Hearing Issues	6	12%	
	Therapy Setting	Hospital / Clinic	20	40%	
		School-based	12	24%	

		Private Centers	10	20%	
		Home-based	8	16%	
	Awareness Level	High	6	12%	
		Moderate	22	44%	
		Low	22	44%	
	Role of Therapist	Essential	38	76%	
		Limited	12	24%	
	Early Intervention	Available	10	20%	
		Limited	24	48%	
		Not Available	16	32%	

2. Multiple Response Questions

The multiple-choice section gave a broader picture of the difficulties and helps related to speech therapy intervention. Respondents noted multiple service delivery interrelated issues.

The constraints, including the limited availability of trained speech therapists, lack of resources, insufficient infrastructure, and budgets, were often selected. The shortage of

qualified professionals began to make its presence felt especially in rural-remote areas where their availability is very limited.

Respondents pointed out that unawareness of parents and caregivers is a big barrier. Most likely, many indicated, the late identification of a speech & language disorder leads to late intervention and less effective therapy outcome.

Other factors related to the system education was also prominent. Participants expressed concern about insufficient integration of speech therapy services in schools, limited assistance with Special Education needs, and poor collaboration between teachers and therapists.

CATEGORY	FACTOR	n (Freq)	%
Challenges	Lack of Therapists	34	68%
Challenges	Financial Constraints	28	56%
Challenges	Poor Infrastructure	26	52%
Challenges	Lack of Awareness	30	60%
Challenges	Rural Inaccessibility	32	64%
Educational Barriers	Poor School Integration	29	58%
Educational Barriers	Lack of Special Educators	25	50%
Facilitators	Family Support	35	70%
Facilitators	Multidisciplinary Approach	27	54%
Facilitators	Urban Centers	22	44%
Technology Factors	Lack of Tools	31	62%
Technology Factors	Limited Digital Therapy	28	56%

Technological and training-related hinderances were also noted. Most respondents had limited access to modern therapeutic tools, digital platforms and evidence-based intervention protocols that could impact the quality of care.

On the upside, respondents noted facilitators of increased demand for services, awareness in urban populations, and presence of centers in big cities. Also, the benefits of multidisciplinary collaboration, especially pediatricians, psychologists, and educators, were acknowledged.

The engagement of families was often identified as an important factor in intervention success. It was also found that parental involvement varied and that parents with low-SES were more unaware.

Overall, the multiple-response data highlight that speech therapy in Kyrgyzstan is shaped by

a combination of systemic challenges and emerging opportunities, emphasizing the need for capacity building and resource allocation.

3. Linear Scale Questions

The section on the linear scale assessed perceptions of service quality, accessibility, and effectiveness. The trends of these stakeholders have been revealed. Participants rated the importance of speech therapy interventions as high, revealing that their importance in child development is well-recognized. There was also consensus in favor of early diagnosis and intervention. Nonetheless, service accessibility ratings were moderate, showing uneven geographic availability of these services. Urban respondents reported better access than rural respondents, revealing geographic inequalities. Perceptions of quality of services were varied, with moderate ratings indicating services were functional but varied in their credibility and evidence-based practice, indicating room for improvement. The training and professional development opportunities for speech therapists were also considered insufficient by participants. This result mirrors the workforce issues captured in the multiple-response segment. Ratings of low to moderate were assigned to either the levels of awareness of parents and the general population. Thus, that shows the need for a public health education campaign. Interestingly, it was observed that the respondents strongly agreed with statements regarding the need for multidisciplinary collaboration, which suggests integration over consent for care models. Overall, the linear scale results reveal a strong acceptance of the effectiveness of speech therapy, as well as concerns relating to accessibility, quality and professional support systems.

STATEMENT	MEAN	SD	INTERPRETATION
Importance of Speech Therapy	4.6	0.5	High
Accessibility of Services	3.1	0.8	Moderate
Quality of Services	3.3	0.7	Moderate

Awareness Among Parents	2.8	0.9	Low-Moderate
Need for Early Intervention	4.7	0.4	High
Training Opportunities	2.6	0.8	Low

4. Short Answer Questions

The qualitative comments gave better understandings of lived experiences and contextual challenges. Thematic analysis brought several recurring themes. There was a shortage of qualified speech therapists with rural areas being severely impacted. Many respondents noted long wait times and limited availability of specialized services. The diagnosis and management of pediculosis capitis is not yet standardized in India. Numerous participants cited situations where parents delayed seeking help for extended periods of time, generally due to insufficient knowledge regarding developmental milestones. Respondents also mentioned financing challenges, stating that private therapy services can be expensive and note paying for them isn't always covered. This constrains access for families from lower socioeconomic backgrounds. There were also educational challenges. Schools provide limited support, e.g. not enough trained staff, the collaboration between teachers and therapist are not enough. Many responses highlighted the increasing recognition of speech therapy as a profession, especially among urban cities, which is encouraging. Several participants remarked on the enhancement of training programs and healthcare professionals' increased interest. It was suggested that training programs and public awareness campaigns should be expanded, as well as integrating them into schools and improving government support. In general, the qualitative findings complement the quantitative results, shedding light on the challenges and opportunities faced by speech therapists in Kyrgyzstan.

THEME	DESCRIPTION	Frequency

Workforce Shortage	Lack of Speech Therapists	36
Awareness Issues	Delayed Diagnosis	32
Financial Barriers	High Cost of Therapy	28
Educational Gaps	Poor School Support	30
Positive Trends	Growing Recognition	20
Recommendations	Awareness & Training Expansion	34

DISCUSSION

The current study discusses the current practices, challenges, and perceptions that speech therapists in Kyrgyzstan have regarding the provision of speech therapy to children. Disparities in access, distribution of the workforce and awareness were highlighted in the findings that reflect the similar trends of a developing healthcare system. The MCQ findings show that majority of speech therapy services are in urban areas with limited services in rural areas. According to a prior study by Lawrence D. Shriberg et al. (2010), The inadequate allocation of healthcare resources affects the availability of specialized services like speech therapy. Our respondents also mentioned that not many services were available outside of major cities. A workforce shortage was an important issue in our study. Brian Shulman et al. (2017) indicate that a shortage of speech-language pathologists in low-resource settings is attributed to insufficient training and limited career opportunities. Likewise, our ones responses revealed that a dearth of trained professionals was a major barrier. Another finding was the role of awareness. According to Pamela Hadley et.al (2026) study, a parent's awareness significantly helps in the early identification and intervention of speech and language disorders. Our findings confirm this, as respondents cited prolonged diagnosis from unawareness of caregivers. Our findings on the linear scale strongly emphasized the need for multidisciplinary collaboration. According to James Law et.al (2017), Integrated care models enhance therapeutic outcomes in pediatric speech therapy, according to the result. Our findings about technological and resource constraints are also echoed by Sally E. Roulstone et.al (2015), who noted that lacking access to modern and

evidence-based tools hamper the service quality. The qualitative findings supported these observations, especially those related to financial constraints and the educational system. Inclusion of speech therapy services in school systems make it more accessible and ensures timely intervention. Our results are in line with existing literature, such as those by Zhunusov, Raev (2020) and Ainurova, Kulbaeva (2020). Speech therapy services in Kyrgyzstan face systematic barriers to access, awareness and workforce capacity. Nevertheless, the growing acceptance of the profession and the surge in demand for its services suggest prospects for improvement

FUTURE RECOMMENDATIONS, STRENGTHS & LIMITATIONS

Proposals, Strengths & Limitations for the Future One of the strengths of this study is the use of a mixed method approach encompassing quantitative and qualitative data that provides an overall understanding of the speech therapy. By designing a structured questionnaire, detailed analyses were possible on different aspects like accessibility, awareness and service quality. Nonetheless, there are certain limitations. The size of the study sample may affect how applicable the findings are. The possibility of response bias arises from reliance on self-reported data. The cross-sectional design also undermines the ability to determine causality. Future studies should include larger and much more diverse populations and also use longitudinal designs to examine trends over time. Policymakers need to intervene through policies to fix shortages of human resources and improve the distribution of services. Expanding therapist training, boosting public awareness, incorporating speech therapy into schools, and increasing access to affordable care have all been suggested efforts.

CONCLUSION

This study highlights the current state of speech therapy interventions for children in Kyrgyzstan, emphasizing both challenges and opportunities. The findings indicate that while services are available, they are unevenly distributed, with significant disparities between urban and rural areas.

Key challenges include shortage of trained professionals, limited awareness among parents, financial barriers, and lack of integration within educational systems. These factors contribute to delayed diagnosis and reduced effectiveness of interventions.

Further, there is an appreciation of speech therapy along with a service demand. Focused multidisciplinary collaboration and early intervention should be placed on ensuring a paradigm shift toward more holistic care.

The study indicates a dire need for the reformation of health care systems, training, and public knowledge. By overcoming such hurdles, it will enlarge the accessibility and quality of speech therapy services and vastly improve the prognosis of children.

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