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Teletherapy for children with communication disorders: A survey on parental opinion

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Abstract

Teletherapy has emerged as an alternate form of service delivery to assess and treat individuals with communication disorders. It is the delivery of rehabilitation services over tele-communication networks and the internet. It allows patients to interact with providers remotely by linking clinician to client or clinician to clinician for assessment, intervention, and/or consultation. Recently, In India many speech language pathologists initiated providing Teletherapy. However, how far the parents of children with communication disorders accepted this Teletherapy is not known in Indian scenario.

Purpose: The study aimed to investigate the parental opinion about effectiveness of Teletherapy among children with communication disorders.

Method: A questionnaire on parental opinion regarding Teletherapy was developed. The developed questionnaire was sent via e-mail to 60 parents of children with communication disorders who were attending Teletherapy. The submitted responses were later analysed.

Result: The results indicated that majority of the parents who participated in the study had a positive opinion about online therapy service. Further, they reported that Teletherapy services are effective.

Conclusion: From the study it can be concluded that, parents of children with communication disorders accepted the mode of Teletherapy and there is a positive response to Teletherapy by the parents.

Keywords: Telerehabilitation, communication disorders, speech therapy

Introduction

Disorders of communication are common in childhood, with a prevalence rate of 6 to 25% [1, 2, 3, 4]. The impact of these communication disorders is very high as they can negatively affect the quality of life, academic achievements, and vocational opportunities [1, 2, 3, 4]. Services offered by speech-language pathologists can help an individual to overcome deficits in communication due to speech, language, and hearing problems.

A speech language pathologist often provides their services directly as traditional face to face therapy. However, in recent times there is an increasing trend of providing such services online. Teletherapy can be considered as a branch of telemedicine. It is the delivery of rehabilitation services over tele-communication networks and the internet. It allows patients to interact with providers remotely by linking clinician to client or clinician to clinician for assessment, intervention, and/or consultation. There is now considerable evidence to support the premise that service delivery through teletherapy may actually enhance the quality of care provided and ultimately the quality of life [5, 6] suggested that teletherapy has the potential to optimize the timing, intensity and sequencing of intervention, leading to a greatest functional outcome for the client. Twenty-five percent of studies that assessed client's reactions to the use of teletherapy reported favourable responses [7]. It is also crucial to examine professional's attitude towards the use of teletherapy.

Teletherapy has emerged as a form of service delivery to assess and treat individuals with communication disorders. A comparison of the effectiveness of teletherapy and face-to-face speech and language assessment revealed poor parental satisfaction due to inconsistent internet access [8]. The American Speech-Language-Hearing Association [9] conducted a survey on use of teletherapy among audiologists and speech-language pathologists. ASHA reported that 11% of respondents delivered services using teletherapy and 43% expressed interest in using it in the future.

In India, traditional on-site therapy is widely used for delivering speech and language therapy than teletherapy.

Because of this, parents of children with communication disorders are less exposed to the advantages of teletherapy. In certain situations, providing traditional on-site speech therapy can be challenging to clinician, clients as well as for the caretakers. One example for such situation is corona virus (COVID-19) pandemic. During the COVID 19 pandemic, many people across the world have been advised to work from home in an effort to slow down the spreading of virus. Traditional therapy seems not to be the better option considering social distancing, self-isolation and other safety measures during the period of COVID 19.

In India there are over 900 million mobile phone users and has the second-largest mobile phone usage in the world. There has also been a tremendous rise in the number of internet users in India. Hence, teletherapy in India could overcome the barriers and amplify the availability of speech and language services throughout the nation. This will help in providing speech and language therapy in the early childhood for the better development of speech and language. Recently, many speech language pathologists initiated providing teletherapy in India during period of the pandemic, COVID 19. Since, COVID-19 has forced many people to stay in their homes, people have started to opt teletherapy services. However, how far the parents of children with communication disorders accepted this teletherapy is not known in Indian scenario. Hence, the study aimed to investigate the parental opinion about effectiveness of teletherapy among children with communication disorders.

Methods

In order to collect parental opinion regarding Teletherapy services, a survey based study was carried out. The study was carried out in two different phases. A questionnaire on

parental opinion regarding teletherapy was developed in the first phase. The questionnaire was developed to gather responses from parents of children with communication disorders who are engaged in teletherapy. The questionnaire was divided into two Parts. The first part consisted of questions to collect the basic details of the participants such as name, age, gender, provisional diagnosis and number of sessions attended in teletherapy. The second part contained fifteen closed ended questions. Details of the questionnaire are given in Appendix 1. Questions in the questionnaire addressed areas such as parental opinion towards teletherapy and efficacy of teletherapy. The questionnaire was validated by two practicing speech-language pathologists having more than 10 years of experience. The questionnaire was configured to Google forms and forwarded to the participants.

In the second phase of the study, the developed questionnaire was sent via e-mail to 60 parents of children with communication disorders who were attending teletherapy. Children were attending teletherapy services at various centres in South India were included in the study. The e-mail included a letter of consent, objectives of the research, and the link to the survey questionnaire. All the participants were instructed to fill the questionnaire and to return the forms via email. Responses were collected over a period of 15days, and patient identity was kept confidential. The study was carried out adhering to ethical guidelines of the Helsinki Declaration of 1975, as revised in 2000. Informed consent was obtained from all the parents and their personal details were kept confidential. The submitted responses were later analysed. Details regarding the types of communication disorders and the number of cases are shown in table 1

Table 1: Number of individuals having various kind of speech and language disorders.

Provisional Diagnosis	Number of participants
Hearing impairment	10
Autism spectrum disorder	6
Language disorders (Intellectual disability, learning disability, Specific Language Impairment)	17
Speech sound disorder	13
Stuttering	5

Out of the 60 parents, only 51 parents completed the questionnaire. Hence, the response rate of the survey was found to be 85%. Prior to the analysis, all the participants were grouped according to the type of diagnosis. The responses were analysed by counting the yes or no responses for each question.

Results

From the results of the study, it was clear that, participants had a favourable opinion towards the teletherapy. Out of 15 closed ended questions, there were five questions which tackled the parental opinion towards teletherapy, rest of the questions focused on efficacy of online therapy. Active parental involvement in therapy can make significant improvement in the child language outcomes. In the present study, all the participants reported that there is an increase in parental involvement during therapy sessions. The result also indicated that 98% of the parents could, clarify their doubts during the online therapy session and about 94% of subjects reported better convenience of the therapy timing. 90% of the parents also reported that, during online therapy,

they could attend the therapy sessions more consistently than traditional offline therapy. For good result from the therapy, it is essential to build rapport with the client. The present study indicated that 82.3% of the participants reported that therapist could build rapport with the child during teletherapy and they recommend online speech therapy services to others. From the results it was also observed that, more than 70% of the participants agreed that online therapy is giving sufficient benefit to the child. They also agreed that while taking online therapy, the clinician could actively involve in the session as in traditional face to face therapy and were also able to make the sessions interesting. However, 49.1% of the participants reported internet connectivity problems that leads to interference during online therapy sessions. 68.6% of participants reported that, their child could concentrate during online therapy sessions. 21.5% of the parents reported that using mobile phones in the online therapy session are distracting their child, but 78.4% of the participants did not report this issue. The yes or no responses of the participants for each question were estimated in percentage and are shown in table 2.

Table 2: The questions of the questionnaire and the analyzed response

Sl. No	Questions	Yes (%)	No (%)
1	Does online therapy help parent to attend therapy sessions more consistently?	90.1	9.8
2	Do you think using a computer/mobile in the online therapy session is distracting your child?	21.5	78.4
3	Do you think the clinician is actively involved while taking online therapy compared to traditional face to face therapy?	70.5	29.4
4	Does your child able to concentrate during online therapy sessions?	68.6	31.3
5	Are sessions in online therapy scheduled at a convenient time?	94.1	5.8
6	Do you think online therapy is more comfortable than traditional face to face therapy?	60.7	39.2
7	Do you think during online therapy, the therapist is able to build rapport with the child?	82.3	17.6
8	During the online therapy session, are you able to clarify your doubts?	98	1.9
9	Does online therapy increase the parental involvement in therapy sessions?	100	0
10	Do you think online therapy help you to maintain better management of your time?	86.2	13.7
11	Do you think clinician is able to make online therapy session interesting as in traditional face to face therapy?	78.4	21.5
12	Are you facing connectivity problems that interfere online therapy sessions?	49.1	50.9
13	Do you think online therapy is giving sufficient benefit to your child?	72.5	27.4
14	Do you think online therapy is as good as traditional face to face therapy?	56.8	43.1
15	Do you recommend online therapy for others too?	82.3	17.6

The questions evaluating efficacy of online therapy such as level of concentration, level of distraction, building of interest, rapport and overall benefit from online therapy were analyzed. These factors were analysed among parents of children having various types of communication disorders. Table 3 shows the response obtained from these

parents on various aspects of efficacy of therapy. It can be noted that condition such as ASD and language disorders had lowest efficacy in tele-therapy. In contrast, hearing impairment, speech sound disorder and stuttering had maximum efficacy.

Table 3: Parental response on various aspects related to effectiveness of therapy

Type of communication disorders	factors related to efficacy of therapy					RT	Benefit
	Concentration	No Distraction	Interest	Rappo			
Hearing impairment	80%	80%	100%	90%		90%	
Autism spectrum disorder	50%	16.6%	66.6%	50%		16.6%	
Language disorder	52.5%	82.4%	64.70%	76.4%		70.5%	
Speech sound disorder	100%	92.30%	84.61%	100%		84.61%	
Stuttering	60%	100%	80%	80%		80%	

Discussions

It was found that majority of the parents who participated in the study had a positive opinion about online therapy service. Further, they reported that online therapy services are effective. Overall, the results of the study revealed a positive response to tele-rehabilitation by parents. This is in accordance with the reports on parental satisfaction on teletherapy services. Comparison of speech and language therapy provided face to face and through video conferencing revealed similar progress and equal amount of satisfaction by parents and children. Hence, it was concluded that speech and language therapy provided through video conferencing is a promising method [10, 11, 12, 13, 14].

It was observed in the current study that factors related to effectiveness of teletherapy vary depending on the type and nature of communication disorders. It was noted that autism spectrum disorder had the lowest amount of concentration, interest and benefit compared to other conditions. This indicates that effectiveness of teleservices may vary depending on the nature of the condition.

It was also noted that majority of the parents (50%) reported internet connectivity problems that interfered with teletherapy services. Although teletherapy is considerably new, its use has rapidly increased in developed countries. In general, teletherapy reduces the costs of both health care providers and patients compared with traditional in patient or person-to-person rehabilitation. Furthermore, patients who live in remote places, where traditional rehabilitation services may not be easily accessible, can benefit from this

technology provided good connectivity is available in that region.

Around worldwide, Recruitment and retention of speech language pathologist remains a problem since access to speech language pathogist services is most difficult in rural and remote communities [15]. The difficulty encountered by those who have significant mobility difficulties (e.g., PD, stroke) are equally problematic and frequently underestimated. For many adults, travelling to and from a treatment facility regularly is a daunting task, if not impossible for those with a communication impairment and associated physical dysfunction. Similarly, due to work, child care schedules, financial concerns, transport and distance [16] for single-parent and double-income families, accessing SLP services for their children can be onerous.

Conclusions

Although face-to-face treatment has always been considered the ‘gold standard’ of care, SLPs need to consider alternative modes of service delivery to address the communication needs of a changing community and to ensure that the most effective treatment programmes are delivered. Speech-language pathology services are eminently suited to deliver via teletherapy owing to the audio-visual nature of the interaction between the clinician and the client. The evidence base supporting the use of teletherapy in speech-language pathology continues to grow, with research conducted in neurogenic communication disorders, stuttering, voice disorders, dysphagia, laryngectomy, and paediatric speech, language, and literacy

disorders. A variety of technologies are now available to support a continuum of care for people with chronic communication and swallowing disorders. The future of teletherapy in speech language pathology is promising, although several challenges such as clinician confidence, education and training, professional portability, reimbursement, connectivity and economic evaluation need to be addressed. With the development of information technology and internet services, teletherapy is quickly becoming an important option for many of the therapist and clients.

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Conflict of Interest

No conflict of interest

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