

EXPERIENCE OF TELE THERAPY IN COCHLEAR IMPLANT PATIENTS IN CORONA PANDEMIC

Authors: Neha Gupta (1), Neeraj Sainy (1), Sumit Maheshwari (1), Rohit Mehrotra* (2) Rudresh Sharma (3), Ujjwal Mehrotra (4)

Authors Affiliations: (1) Fellow (2) Professor & Director (3) Audiologist (4) - Intern -Mehrotra ENT Hospital Kanpur

ABSTRACT

INTRODUCTION

Speech and auditory rehabilitation is a major step for successful implant surgery outcome. We, a Mehrotra ENT hospital, recommend 2 years of rehabilitation for all implanted children. However, during difficult times in corona pandemic with various implementations of lockdown and restrictions, the implanted children and their parents face major problems for their availability at the centre for rehabilitation.

METHOD

To overcome this handicap during corona pandemic, we introduced teletherapy at Mehrotra hospital for unhindered successful rehabilitation for our implanted children.

CONCLUSION

Teletherapy, a means of delivering services from a distance- usually through some form of distance technology, not only helped our cause for rehabilitation, but also minimized the risks for contracting Covid. Sharing the experience of teletherapy at our centre, the challenges we overcame and the difficulties faced.

KEYWORDS

Teletherapy, Cochlear Implant, Corona Pandemic

INTRODUCTION

Auditory-based intervention or rehabilitation, is required for children and adults who have received cochlear implants to develop, expand, and refine their use of the technology for communication.

For children with cochlear implants, professionals who are certified Auditory- Verbal practitioners are the most qualified to deliver listening and spoken language services. Similarly, audiologists or speech-language pathologists who have Auditory-Verbal or related knowledge, background, and experience typically are the professionals best suited to provide comprehensive aural rehabilitation services.

The prefix “tele” is derived from the Greek root word that means “distant” or “remote” (Houston, 2012); Tele-practice is an appropriate model of service delivery for the profession of speech-language pathology. Tele-practice may be used to overcome barriers of access to services caused by distance, unavailability of specialists and/or sub specialists, and impaired mobility. Tele-practice offers the potential to extend clinical services to remote, rural, and underserved populations, and to culturally and linguistically diverse populations.

The COVID-19 pandemic, also known as the coronavirus pandemic, is an ongoing global pandemic of corona virus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus2 (SARS-CoV-2). The outbreak was first identified in Wuhan, China, in December 2019. The World Health Organization declared the outbreak a Public Health Emergency of International Concern on 30 January' 2020 and a pandemic on 11 March. As of 21 July 2020, more than 14.7 million cases of COVID-19 have been reported

in more than 188 countries and territories, resulting in more than 609,000 deaths; more than 8.29 million people have recovered/51 Travel restrictions, lockdowns increased as the cases of Covid increased. Implanted children and their parents found more and more difficulty for personal appearance at the centre for rehabilitation.

To combat these issues, the Teletherapy was established at our Mehrotra ENT hospital, Kanpur, India. Currently, we are providing Auditory-Verbal intervention and rehabilitation services to arrange of children with cochlear implants.

EQUIPMENT & GETTING STARTED

For both the practitioner and the consumer, the minimum equipment needed for providing or receiving telepractice services is a quiet room away from external noise, computer or a good android phone, webcam, ahead set with microphone, and a high-speed, broadband Internet connection. Additionally, an individual's laptop may be connected to a wide-screen computer monitor or flat-screen television to provide a larger video image. As well, high-quality external computer speakers may be used if the patient/client receiving services is unable to use a headset due to their use of hearing aids or cochlear implants. With cochlear Implants, the

client may be able to direct connect their cochlear implants) to the computer and/or to the external speakers for improved audio fidelity.

AUDITORY VERBAL SESSIONS

The most important part of teletherapy which needs meticulous planning and implementation. Every implanted child is different from one another. Levels of the child are prepared according to the stage the child is in. For a child who have just started after implant, only auditory training sessions are planned. For more experienced child, audio verbal training (AVT) sessions are prepared. Parents were called 3-4 days before the actual date of session. Thorough information and details of session was provided. Our team explains the need and importance of session to the parents. Requirements as mentioned before, for the session are explained in detail. Our team consists of experienced Listening and Spoken Language Specialists and Auditory-Verbal speech Therapists. Each session is prepared to last for 45 minutes. In a day, we cover around 40- 45 children sessions. For each child, sessions are planned thrice per week.

After discussing the materials and activities that would most engage the child, we demonstrate the activity before asking the parent to engage the child. The parent repeats the activity while the faculty member observe. The faculty member provides positive reinforcement and constructive feed back to the parent based on how the activity was implemented and how the communication strategies that promote listening and spoken language are applied. This same scenario is repeated as one activity' ends and a new activity is initiated. Throughout the session, the parent, the faculty member closely monitor the child's attention level.

Following the session, the parent is given ample opportunity to discuss any concerns about the child's progress, to ask questions about short- or long-term communication goals, or to seek input about troubleshooting the child's hearing technology (e.g., digital hearing aids and/or cochlear implants). The faculty member summarizes the goals and facilitation strategies that were modeled and practiced during the session. Based on the child's performance and developmental level, new or additional communication goals are discussed that will be targeted in the home the following week.

The Auditory-Verbal telepractice model continues to be available means by which to support children with hearing loss who are acquiring listening and spoken language skills during corona pandemic.

ADVANTAGES OF TELETHERAPY

First, we have the consistency of thrice a week therapy back in place which could have been hindered due to corona pandemic restrictions. With telepractice, the child is in his home. It is quite natural for him. Most importantly, because he feels more comfortable being at home, child generally talks more during the sessions. Another benefit of telepractice is the coaching parent receive and weekly lesson plans and other materials that one can refer to after the session. One can continue to work on the goals and do the activities throughout the week.

Last but not the least and the most important, teletherapy prevents unnecessary exposure of child and parents to risk of acquiring Covid infection through possible exposure to cases. With strict restrictions and lockdowns, we provided definite prevention to combat Covid spread among our patients.

BARRIERS TO TELETHERAPY

Several barriers currently exist in regards to accessing and expanding the availability of telepractice services in Speech-Language Pathology and Audiology. Major challenges we experience is the motivation of parents, inspire of before hand information, parents are either busy with their work at the time of sessions or not motivated enough to care for requirement to be fulfilled for proper functioning of sessions. Many of parents are from rural parts of India or are poor, especially

ADIP scheme child parents who do not have access to highspeed network or a laptop or computer. Quite room availability is also a issue in poor crowded families. Audibility is also sometimes compromised.

Teletherapy is a challenge for therapist. Training of therapist is a challenge. Mapping cannot be done unless equipment is arranged which is not the case in India; Certified AVT (audio-verbal therapist) are not available.

CONCLUSION

Tele practice service delivery models in corona pandemic will most likely become standards of care for families seeking early intervention and/or speech-language services for their implanted children, who will seek aural rehabilitation services to improve their auditor,' processing and communicative competence. With the pandemic engulfing most of the world and is still continuing and threatening to continue long, our team at Mehrotra hospital have overcome the challenge in a effective way to provide safe, persistent and uncompromised rehabilitation. While generational differences exist in the use of technology, those differences are beginning to diminish, especially as technology becomes user-friendly, lower in cost, and reliable. For audiologists and speech-language pathologists, models of tele-practice

provide exciting opportunities to connect with patients and to provide valuable services, such as Auditory-Verbal Therapy and Adult Aural Rehabilitation, that may not otherwise be available.

DECLARATION

Ethics approval and consent to participate: The study was approved by Institutional Ethics committee.

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REFERENCES

1. American Speech-Language-Hearing Association. (2005). Speech-language Pathologists providing clinical services via tele practice: Position statement.
2. American Speech-Language-Hearing Association. (2010). Professional issues In telepractice for speech-language pathologists (professional issues statement).
3. American-Speech-Language-Hearing Association (2012). Telepractice for sips and audiologists.
4. Beck, D.L.&Flexer,C.(2011,February). Listening is where hearing meets brain...in children and adults. The Hearing Review
5. Houston, K.T. (2012). Connecting to communicate: Using telepractice to improve Outcomes for children and adults with hearing loss.

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***Corresponding Author:**

Professor Dr. Rohit Mehrotra
Director - Mehrotra ENT Hospital Kanpur
Address: 11/114 Beech Wala Mandir, Ashok Nagar, Harsh Nagar, Kanpur, Uttar Pradesh 208012
E mail: mehrotraent@rediffmail.com

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