

# Teletherapy Services for Children with Hearing Devices: The Malaysian Parents Experience

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## Abstract

This study aimed to examine parents' perspectives on the implementation of teletherapy for deaf children with hearing devices. Teletherapy is a new method in Malaysia and has not yet been widely introduced to the community. There are still many individuals especially from the deaf community who need the services of a therapist, yet the lack of pathologists and therapists prevents this community from getting therapy. The problem is rotation system for the services of a therapist also takes a long-time causing child with hearing impairment to lag in terms of language and cognitive development and does not show significant results due to the relatively long time to get the next therapy session. The busyness of parents and the high cost of therapy are examples of factors that cause low access to the therapy. The use of teletherapy methods can help improve the access for deaf children with hearing device to therapy. This study has two main objectives which is to examine the factors that influence the readiness of parents and the suitability of the implementation of teletherapy in Malaysia based on the experience of the study respondents. Participants in this study are parents of children who are still or have received teletherapy treatment in an organization that provides support to the community with hearing impairment that known as Hear Me. This study showed that most parents in this study agreed that teletherapy was appropriate and potentially to be featured.

**Keywords:** Hearing Impairment, Parent Perspective, Teletherapy

## Introduction

Early detection and identification of hearing problems at an early age in infants or children with hearing impairment is important so that they can seek immediate intervention. Early intervention can ensure that the child's development is not too different from typical children in their age in term of language, cognitive and social development. If a child is given intervention as early as six months of age and receives continuous intervention throughout the critical phase of development of the central auditory pathway (0-5 years), the child can develop language acquisition skills like the development of typical children of his age (Estienne Havenga et al. al, 2016).

Parents have many opportunities to help the development of children with hearing impairment in terms of language development because they spent the most time with the child. Parents and family members are the individuals who most frequently engage in social interactions with children (Medan & Angel, 2013). Additionally, parents can encourage deaf children with hearing device to speak and increase vocabulary through environments and situations (Y.Chung et al, 2016). Even so, there are still many parents who do not know how to help their children improve their speaking skills. This is what causes children with hearing impairment to lag in terms of language and cognitive development compared to typical children their age.

Teletherapy is a service provided by professionals to deliver their therapy to clients remotely using the medium of online video conferencing or other technologies. This method has been widely adopted in other countries such as the United States, Sweden and many others country. Teletherapy was found to increase parents' knowledge and confidence in supporting their children in developing language and communication skills.

Teletherapy methods are still new in Malaysia, various aspects need to be taken to ensure that this method is successfully implemented and gain the trust of parents. Only minority number of parents and therapists who know about teletherapy. Therefore, teletherapy is seen to help solve some of the problems faced in the world of special education, especially in the field of hearing problems itself. By using this method, we can help deaf children with hearing device access to therapy and solve parents' problems who often have inflexible time constraints to be equally involved therapy session for their child even just at home, without having to go to the center. In addition, the time and cost spent on travel if the parent is from an area relatively far from the therapy center can be saved.

### **Literature Review**

Teletherapy is seen to offer various benefits, especially to parents and children with hearing impairment. Among the benefits of teletherapy that are often mentioned is can save costs and time spent on travel. Mc Charthy (2010), noted that parents felt teletherapy was easier because therapy sessions were implemented at home, and it was reported that children were more comfortable interacting. Many studies related to the implementation of teletherapy abroad showed positive results and indicated that teletherapy and face -to -face therapy did not show significant outcome. However, there are very few studies related to the implementation of teletherapy in Malaysia. More studies are needed to determine the appropriateness of the implementation of this method to convince parents in Malaysia.

#### *Parent Perspective Regarding Teletherapy*

Behl et al (2013), reported that some parents preferred the physical presence of the therapist in the intervention session, as it further felt the intimacy between the therapist, parents and children. However, in terms of its effectiveness, parents did not feel a significant difference between online and face-to-face intervention therapy because both facilitated interaction between them and their children. The study showed that parents recognized the ability of teletherapy to enable the facilitation of meaningful interactions between them and their children in much the same way as therapy at a therapy center. In fact, parents also noted a higher level of family satisfaction in terms of cost savings, fewer waiting lists, fewer travel arrangements, fewer unforeseen obstacles and being able to reduce feelings of anxiety and

depression because of emotional support, reassurance and guidance given by the therapist on a continuous or weekly basis.

#### *Tools Requirement*

High -quality equipment and internet coverage were required for video communications to ensure the teletherapy session held smoothly. Although the technology is relatively easy to use, not all areas have good internet connections. For example, if parents live in rural areas, high -speed internet connections may not be available (Teresa Crowe et. Al, 2016). Some parents may not feel comfortable with teletherapy and decide that they prefer a more traditional in -home service delivery model because they find it difficult to get good internet coverage. Even so, teletherapy still shows that it can be used to improve access to therapy even in clients who are in remote areas.

#### *Parent Readiness*

According to Todd Houston (2018), the implementation of teletherapy requires a high level of parental responsibility to upload videos and complete activities given by the professional. Therefore, when considering this intervention model, it is important to consider the skills of the parents or individuals involved in conducting the therapy and committing to upload video consistently. Melinda R. Snodgras et al (2016), conducted a study related to the construction of strategies to guide parents to implement teletherapy together so that children with hearing problems can improve their language development to increase parental readiness.

In the study of Basyariatul & Nurul (2019), out of 40 parents who were approached to be equally involved in the teletherapy-related research program, only 15 parents responded and only 4 families participated in the program. Various factors of non-involvement given by parents especially time constraints. If teletherapy is supported by many studies related to time flexibility, the factor needs to be studied in more detail to understand the real situation of parents in Malaysia.

According to Yang (2020), parents lack of confidence to implement strategies. Some participants reported that they did not have the ability needed to support their child's learning through teletherapy. Implementing the strategy without the presence of a physical therapist is difficult to some of parents. Therefore, creating a suitable therapy space at home, considering acoustic and visual elements also quite challenging. To sum up, several families may prefer the physical presence of a physician (Blaiser et al, 2012).

#### **Methodology**

This study aimed to examine the suitability of teletherapy implementation on hearing impaired children according to the perspective of parents registered with the Hear Me organization.

#### *Research Design*

The study conducted is qualitative, interview approach was using reasoning based on parent experinced. The goal is to get meaning, feeling and described the situation. The study population consisted of parents who had children with hearing impairments and were still or had been actively involved in Hear Me. Hear Me is a national parent support group for children with hearing problems has started a small-scale teletherapy program. This study was

conducted on 5 parents who had followed the method of teletherapy, and they were approached randomly by the researcher to achieve the objectives.

### *Data Collection and Analysis*

Data collection was obtained through interviews. The main purpose of this study was to examine the appropriateness of teletherapy implementation according to parental perspective. The researcher chose to interview parents with hearing impaired children who had participated in teletherapy to find out the parents' own experiences in handling and engaging in teletherapy methods.

For the interview questions for parents who participated in teletherapy, the researcher divided the interview session into three parts, the first was demographics. The demographic section includes the child's name, age, disability such as hearing level and type of hearing aid used, parent's professional background, length of time getting therapy at Hear Me. The second part is related to the experience of parents. This aims to find out the factors that influence the readiness of parents in implementing teletherapy, while part three is the challenges and considerations of parents on the suitability of teletherapy implementation in Malaysia based on their experience. The following are data collection procedures for parents who have or still use teletherapy methods.

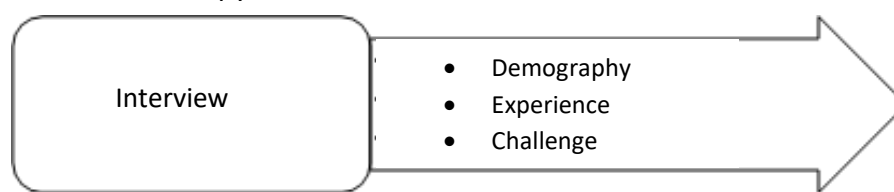


Figure 1 : Three main theme in interview

Data analysis was done thematically. All research data and information obtained from the interviews were analyzed based on the themes outlined by the researcher. Interviews were conducted using online calls only due to COVID-19 epidemic transmission factors that restrict movement and encounters to reduce the risk of epidemic transmission.

### **Findings and Discussion**

This article aimed to answer the questions raised by researchers that is

1. What factors influence the willingness of parents to implement teletherapy for students with hearing problems?
2. Is teletherapy for students with hearing impairment suitable to be implemented in Malaysia based on the perspective of parents?

All names in this study use pseudonyms to protect the real identity of the respondents.

*Respondent Demography*

Table 1

*Demografi Responden*

Respondent	Age	Occupation	Partner Occupation	Household income (RM)	No of Children
Mrs Zira	43	Housewife	Bussinessman	7000	5
Mrs Siti	40	Manager	-	10, 000	3
Mrs Sufi	30	Kindergarten teacher	Language Teacher	6000	3
Mrs Aini	34	Nurse	IT Executive	4000	3
Mr Faiz	32	Auditor	IT Digital Manager	25, 000	2

Table 2

*Demografi Peserta Teleterapi*

Childs' name	Gender	Age	Level of hearing loss (left/right)	Type of Hearing Aid (HA)
Zafir	Male	16	Bilateral Profound	Cochlear Implant (Both-sided)
Hamzi	Male	5	Profound/Severe	Behing the Ear HA (Both-sided)
Aufa	Female	4	Bilateral Profound	BTE (Both-sided)
Aiman	Male	4	Bilateral Profound	Cochlear Implant (Both-sided)
Azim	Male	6	Unilateral Microtia and Atresia	Cochlear Implant (Left)

**Factors Affecting Parent Readiness***Sufficient Tools Requirement and Good Internet Coverage*

All five parents conducted teletherapy sessions using a laptop. Mrs. Sufi and Mrs. Zira shared during their first experiences and perspectives joining teletherapy using mobile phones.

*"If parents want to use tablets to use the phone for that it's a very bad thing. He should use a laptop and at least a laptop. Because if it's small if therapist wants to show you to read to what it's hard for the kid to see. If the laptop is a big screen easy" - Mrs. Zira.*

This suggests that laptops are important to keep teletherapy running smoothly and more clearly for use as a medium of teletherapy delivery. In addition, parents also need to have good internet access to ensure the video quality is clear and not jammed. This will result in irregularities when performing teletherapy. Three out of five parents stated that they often face internet interruptions. Parents need to take the initiative to ensure smoothness when performing teletherapy.

#### *Advantages of Family Member Involvement*

For teletherapy to be successful, people around play an important role regardless of parents, guardians, or siblings. Ideally, therapy sessions should only be attended by the troubled child, parent, and therapist. However, for some families in this project, the presence of other siblings is inevitable. When this happens, professionals ask to be a model for behavioral targets, or take turns with children in need of teletherapy. However, this method is sometimes a nuisance because the siblings do not provide the intended response as requested by the professional. When this occurs, aggression from other siblings reduces the actual learning time, and the behavioral learning of deaf children with hearing device decreases during teletherapy (Basyariatul & Akmar, 2019).

*"The number one child with the number two is joined. So that's afa's 3rd daughter this special one so she's having fun doing the activity because her sisters support her. Everything is ready, the toys in front of the computer are all clean, I can't wait to see Dr. There"-Mrs. Sufi*

Mrs Sufi involved the Afa siblings in encouraging Afa to participate in teletherapy. Besides that, it was also able to make Afa focus on the session as the other siblings also participated in the same activity. According to Mrs Sufi, her children are competitive, making the activities more exciting. Every thing definitely has advantages and disadvantages. Each condition and requirement will vary according to the capabilities of each child. Therefore, professionals will monitor and provide guidance to assist children's development and will help parents determine whether the involvement of other parties besides parents will help the child's development or not.

#### *Mental Readiness and Attitude of Parent*

The mental readiness and attitude of the parents themselves are very important in ensuring that oneself is ready to assist the therapist in helping the smooth running of the session. There are various initiatives that parents can take to increase mental readiness and attitude. Parents should always take the initiative by ensuring that the child achieves past objectives by asking what follow-up actions he can take to help accelerate the child's development and achieve the targeted objectives. For example, if you want to add a child's vocabulary, as a parent you can ask for professional suggestions related to books that can be read to the child so that the child can add vocabulary and so on.

*"Parents who are strong and parents who are strong are very serious. Usually when it comes to teletherapy, we who are with our children are not the teacher who is with our children. The teacher can just give instructions. "- Mrs Sufi*

*"Teletherapy, is commitment and competency. Therapy is not a miracle, attend once is okay. For me, all about consistency, my side, the father side. All family need to be committed. If not committed, I don't think this would be success"- Mrs Siti*

Teletherapy is a new method in the world of special education. Not many parents have ever been involved and have experience conducting teletherapy sessions. Therefore, parents need to prepare more by figuring out how to ensure this method is effective. According to Mrs Sufi and Mrs Siti, the parents themselves need to be diligent and committed to follow teletherapy to determine whether this method is effective or not. Parents need to instill an attitude of not giving up and ask all members to work together to follow the instructions and guidance of professionals.

### **Suitability of the Implementation of Teletherapy**

#### *The Needs and Advantages Access to Teletherapy*

With the existence of initiatives taken by professionals by offering teletherapy services online, it can improve access to therapy for individuals in need out there who have time constraints and live-in areas far from therapy centers. In addition, the relatively limited number of therapists in Malaysia means that many children who need therapy have access only once a month or two. The rotation system is exhausting because many need the services of therapy. All five parents agreed that teletherapy can save in terms of travel costs and time. Teletherapy is desperately needed by some overly busy parents. With the existence of teletherapy, parents can choose their own time to make an appointment so that both parents can participate in teletherapy and know the development of children. 2 out of 5 parents also stated that teletherapy should be extended because 6 months is not enough to determine the effectiveness of teletherapy.

*"If it's a child, if it's kind of good for a little boy, maybe someone who recently wanted to learn therapy, he's not afraid of the outside environment because he's close to his house. It's just that he can't focus very close to the front of the laptop " - Mrs. Sufi*

Based on the information provided by Mrs. Sufi, teletherapy is needed not only to improve performance or get rid of target behaviors, but also to provide experience to the child and the parents themselves to not be clumsy in using technology. It is also said to be a good early experience for children who have a fear of connecting with the outside world. The point here is that teletherapy can also help children communicate and improve their social skills without having to feel insecure.

#### *Teletherapy Effectiveness Gap*

There are some weaknesses or improvisational spaces suggested by parents based on experiences experienced while participating in teletherapy programs. This section will discuss the information that parents share about the weaknesses and suggestions to find out the suitability of its implementation in Malaysia. First of all, it can be seen that all parents are talking about the cost of teletherapy which is quite expensive. All five parents agreed the cost of teletherapy was quite expensive and burdensome for some parents. For Mrs. Zira, she chose teletherapy because she wanted to save travel costs and time and was willing to pay for teletherapy because she did not like to go to the therapy center because she had to wait. For him, too, the results of teletherapy and face -to -face therapy are the same.



But the relatively high cost makes parents not to continue teletherapy programs, especially in times of pandemics where the country's economy is deteriorating and many are affected. Teletherapy is also said to be unsuitable for all children especially children of the same age as children under 5 years old find it difficult to focus for a long period of time.

Puan Siti stated that therapists need to assess or test children who want to participate in teletherapy programs whether they are suitable or not. This is because he feels unsure that this method is suitable for the age and mood factors of minors. According to him, children find it difficult to focus in front of the computer for too long, therapists need to determine how difficult it is for children who participate in the program to be able to learn on their own or be able to focus for a long time. Puan Siti also stated that children with hearing problems and not very clear hearing are not suitable to participate in teletherapy because the sound waves that pass through technical and technological equipment are not the same as the sound waves heard directly, individuals who wear the device especially children who do not yet have the listening skills find it difficult to focus on sound during teletherapy.

### **Conclusion**

There are very few studies on teletherapy in Malaysia that make parents less confident with this method. There is still a lot of room for improvisation that needs to be improved to attract parents out there to participate with teletherapy methods. After conducting this study, researchers saw that parents need to be given exposure to teletherapy methods. The ministry of health or the initiative of the hospital or any other relevant party can recommend parents whose children are diagnosed with hearing problems to continue to seek intervention. Parents need to be empowered with knowledge of the intervention options that exist in Malaysia that are offered face-to-face or online. This is so that parents are more aware of the interventions available and how to access them so that their children can develop optimally and adapt to the problems faced at an early age.

In addition, the government also needs to provide provision to carry out more research on teletherapy. This is in order to see the extent of the suitability of this method in more detail. Next, the government can create courses to teach more effective teletherapy methods to train therapists and professionals. Through this study there are also some good practices that can be applied to ensure the effectiveness of teletherapy methods. Among them is that the government or non-governmental organizations can organize programs to train parents to use teletherapy. Associations, especially those with hearing problems, can also promote and introduce this method to parents so that more children with hearing problems can be helped and access to therapy.

Through this study, the cost of teletherapy is quite a bit burdensome for parents, but there is no denying the price of face-to-face and virtual therapy in Malaysia is quite expensive. This is due to the high demand for services yet lack of professional lines.

This study may be able to open the eyes of professionals to reciprocate the price offered so that everyone in need of therapy services can participate. This study emphasizes the perspective of parents on the implementation of teletherapy to children with hearing impairment in terms of preparation and suitability to help researchers or other professionals to make improvements. Through this study, therapists can see things that can be improved



based on information provided by parents for example in terms of cost cutting or construction of modules according to age or problem as a reference for parents to track the child's developmental level.

The therapist needs to provide an understanding of how this teletherapy is implemented in detail. Parents, on the other hand, need to be consistent and follow the guidelines given by the therapist in order to provide optimal and significant results. The findings of this study are expected to be a guideline for professionals to consider the perspectives of parents related to the implementation of teletherapy. Researchers also suggest that researchers out there the perspectives of parents who do not follow teletherapy methods. This is because to find out the cause of the parents not following this method, is it due to trust problems, excessive costs or other issues that cause parents to choose to keep getting face-to-face therapy.

## References

- Freckmann, A., Hines, M., & Lincoln, M. (2017). Clinicians' perspectives of therapeutic alliance in face-to-face and telepractice speech– language pathology sessions
- Brantlinger, E., Jimenez, R., Klingner, J., Pugach, M., & Richardson, V. (2005). Qualitative Studies in Special Education. *Exceptional Children*, 71(2): 195–207
- Constantinescu, G. (2012). Satisfaction with telemedicine for teaching listening and spoken language to children with hearing loss. *Journal of Telemedicine and Telecare*, 18(5): 267–272
- Diane, D., Behl, & Kahn, G. (2015). provider Perspectives on Telepractice for Serving Families of Children Who are Deaf or Hard of Hearing
- Dunkley, C., Pattie, L., Wilson, L., & McAllister, L. (2010). A comparison of rural speech-language pathologists' and residents' access to and attitudes towards the use of technology for speech-language pathology service delivery. *International Journal of Speech-Language Pathology*, 12(4): 333–343
- Gifford, V., Niles, B., Rivkin, I., Koverola, C., & Polaha, J. (2012). Continuing education training focused on the development of behavioral telehealthcompetencies in behavioral healthcare providers. *Rural and Remote Health*, 12: 2108
- Grogan-Johnson, S., Alvares, R., Rowan, L., & Creaghead, N. (2010). A pilot study comparing the effectiveness of speech language therapy provided by telemedicine with conventional on-site therapy. *Journal of Telemedicine and Telecare*, 16(3): 134–139
- Havenga, E., Swanepoel, D. W., Roux, T., & Schmid, B. (2016). Tele-intervention for children with hearing loss: A comparative pilot study. *Journal of Telemedicine and Telecare*, 23(1):116-125
- Pratt, S. (2018). Profound Hearing Loss: Addressing Barriers to Hearing Healthcare. *Seminars in Hearing*. 39 (4): 428-436.
- Professionals, A. (2020). 16 Reasons Teletherapy Benefits a Speech-Language Pathologist. International Board of Credentialling and Continuing Education StandardsInternational Board of Credentialling and Continuing Education Standards.  
<https://ibcces.org/blog/2020/06/09/reasons-teletherapy-benefits-a-speech-language-pathologist/> [29 Januari 2021].
- Strunk, J., Leisen, M. & Schubert, C. (2017). Using a multidisciplinary approach with children diagnosed with autism spectrum disorder. *Journal of Interprofessional Education and Practice* 8: 60–68. doi:10.1016/j.xjep.2017.03.009Intervention. *Journal of Developmental and Physical Disabilities*