

Informational Counseling to the Parents having Delayed Speech, Language and Hearing Impaired Children

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Abstract

The main aim of the study was to find out the queries of parents of delayed speech language and hearing children and to providing with the information about the diagnostic aspects and rehabilitation process. Parents having both the children with delayed speech, language and hearing impairment were taken for the study. Both the parents included in this study had psycho emotional distress and expressed as anger, grief and frustration. When the child is diagnosed as speech and hearing problems, parents had no knowledge about what next. Due to lack of information, the duration between diagnosis and intervention became more. The parents were given information regarding speech and language assessments, audiological assessments and its intervention including proper amplification (hearing aids, cochlear implant); Speech language therapy (Auditory training, auditory verbal therapy). The need of earmoulds, Cochlear implant procedure and government schemes for aids and appliances were also discussed. Parents asked several questions and were eager to know the information. Parental involvement is very crucial for child's language development. Informational counseling provided them way out for their emotional outburst by sharing their views, feelings with audiologist, speech language therapist and other parents of children with similar speech and hearing problem. The parents' pessimistic approach turned into optimistic view for their children's inability to hear and talk. Parental positive attitude will increase motivational level

and parental involvement will be increased. The professional-parent collaboration will help not only

the parents to overcome the challenges and distress but also the children to develop verbal communication and for inclusive education.

Key Words: *Speech, Language, Hearing Impairment, Counseling, Parental counseling, Auditory training.*

1.Introduction

Hearing loss in children may be since birth or acquired before speech comes. The terminologies used are the former known as congenital hearing loss; the latter known as acquired hearing loss. Depending on the type, hearing loss is classified as conductive (affecting outer ear and middle ear); sensorineural (affecting inner ear) and mixed (affecting all outer, middle and inner ear). Hearing loss occurring early in childhood shows more devastating effects than acquired late in life. Even mild untreated hearing loss may impair child's speech-language, education and socialization. Such condition often leads to delayed speech-language communication [1]. Hearing is an important aspect in learning language in children. Speech and language begins to develop since the first day of life. First word develops approximately at the age of 1year. Among the various reasons of delayed speech and language, hearing loss is the most common [2]. Detection and Intervention of hearing loss as early possible showed an improvement in child's speech and language development and overall communication including expressive and receptive vocabulary, syntactical development, pragmatics and phonological development. The effective management program include family counseling, auditory training, hearing aid trial and fitting, Speech

and language therapy, appropriate educational placement [3].

Speech and language development in children is an ongoing process. Speech refers to the oral manifestation of communication. Language refers to the understanding, processing and production of communication. Among speech problems, child may undergo articulation disorder, voice disorders, and fluency disorders. Language problems include problems in syntax (difficulty in grammatical structures), semantics (words or vocabulary), phonology (rules of speech sound production), morphology (word meaning), pragmatics (use of language according to social context) [4]. Child is considered to have speech and language delay if the child's expressive and receptive language age is not age-appropriate. In such condition, the child's both expressive as well as receptive language is below the norm as in peer group of the same chronological age. This delay results in poor verbal and spelling skills, diminished reading skills, behavioural problems, poor academic problems leading to impaired psychosocial adjustment [5]. In addition, hearing loss also leads to frustration and isolation and affects overall personality of the child. This personality distortion has a negative impact on the peer group relationships, parent-child interaction and his family throughout their lives.

Speech language development in hearing impaired child depends on various factors such as degree and type of hearing loss, age of onset of hearing loss, associated problems, age of identification and intervention, family and environmental factors [6]. The time between diagnosis and beginning of early intervention must be short for better outcome of child's speech and language development as well as other communication skills [7].

Audiologists are the professionals, who deal with the prevention, diagnosis and evidence-based treatment of hearing and balance disorders for people of all ages. This includes audiometric test administration and interpretation, hearing aid trial and fitting and prescribing, interacting with patients and their family members, communicating and collaborating with other professionals related to the child. Speech Language Pathologists deals with prevention, assessment, diagnose and treatment of any speech – language issues with the child including social communication as well as swallowing. They are the responsible person for aural rehabilitation for person with hearing impairment. In case of hearing impaired child Speech-Language therapy includes Auditory Verbal Therapy (AVT), Auditory Training, Speech Language stimulation [8].

Auditory Verbal Therapy (AVT) involves specific methods for learning to listen and speak utilizing their residual hearing. It is done with proper

amplification device such as hearing aid, cochlear implantation. It involves naturalistic speech that is not exaggerated. Auditory training is formal listening training to improve speech perception [9]. Auditory training involves listening to multiple sounds including verbal and nonverbal, undergoing through a hierarchy of levels of difficulty from less to more. Acoustically dissimilar (gross discrimination) and then acoustically similar (fine discrimination) sounds are given and performance feedback was given after each trials [10]. The goal of speech and language stimulation is to encourage speech and language development. Self-talk (using short and simple phrases or sentences explaining suppose what mom is doing), parallel talk (using simple phrases and sentences explaining what the child is doing) [11], expansions (expanding the child's utterances adding missing words or grammar), extensions (similar to expansion but also adding new informations to the utterances) are some of the frequently used speech language stimulation techniques [12].

In case of hearing impaired child, an important aspect of rehabilitation process is the use of proper amplification. The most common type of amplification is hearing aids. Hearing aids will improve not only the hearing, speech comprehension but also health related quality of life of both child as well as parents. Appropriate amplification device helps in reducing psychological, social and emotional effects of hearing loss. Earmoulds help hearing aids to retain in place on small ears. Huggies, extra small earhooks can be beneficial for assisting the hearings aids to remain in place [13]. The young children has to replace the moulds regularly due to growth of earcanal. Cochlear implant may also be an option. Cochlear implant is a small electronic medical device surgically implanted in the cochlea that provides access to auditory input for children and adults with severe to profound hearing loss [14]. The main aim is to help the child to use their residual hearing to recognize language and produce oral language accordingly. The best auditory training material is conversational speech associated with ongoing activities. Conversation involves two-way process, that is, the talker is also listening the child is trying to say and respond accordingly. Depending on the child's hearing loss and residual hearing, child is encouraged to have auditory input only but occasionally visual clues may be given. The final goal is to improve communication and for that if multimodal cues are necessary, may be given [15].

Because of all these aspects and lack of information, families get distressed. Their preferences of information or enquiry pattern changes from time to time. A study conducted by Roush & Harrison (2002) [16] on the information parents want to know about hearing loss and the effect of hearing

impairment on their child. They conducted the study in two parts. One just after the diagnosis of the hearing loss of the child and other after few months of hearing loss diagnosis. The first priority of the parents regarding the information was found to be the “probable cause of hearing loss”. The second highest priority was “coping with the emotional aspects”. As parents feel the diagnosis of hearing loss in the family is life changing for them, they found it useful to get some guidance about how families can adjusted with hearing loss emotionally. In other words, it will motivate and bring positive attitude in them. Due to arbitrary symbols and terminologies used, the parents find it difficult to understand that what it is actually. Hence, “understanding the audiograms” is another point they felt important. Next priority was the information regarding the “child’s speech and language development”. The parents prefer family centered habilitation programs. The parents also want to know about “the ear and process of hearing”. They are interested to get the information through simple diagrams and other materials. After few months of the identification of hearing loss, the parents seek information for some other points. Their preferences shifts to “speech and language development and auditory training” was found to be the highest priority. Also they want to know about the “exact timing for learning to listen and speak”. The parents demand realistic information. “Cochlear implants” was also given high priority after few months of the identification of parents. The parents often do not have vast information about the cochlear implant and its procedure. The families also asked for “written material” such as pamphlets, website information or articles for communication options. In addition, parents also asked queries about “responsibilities of early intervention agencies” and “legal rights of children with hearing loss”.

According to statistics, 90% of hearing impaired children was born to hearing parents. When diagnosed with hearing loss, parents have no idea of what has happened. Parents get distressed because of child’s inability to hear [17]. Lack of information may be an important contributing factor when there is first diagnosis of hearing loss and when there is more than one child with hearing loss.

Counseling in communication disorder has been defined as a listening process involving understanding, explaining, advising and implementing the ideas [18]. Informational counseling is the process of providing necessary information and helping them to make important decisions for rehabilitation process and to motivate the parents. It is an important part of rehabilitation process. Every individual has the right to know the information regarding the testing, its result and its

rehabilitation process. Lack of information regarding assessment, management and other aspects hearing loss and speech and language development in the parents give rise to stress and frustration, which in turn poses a negative impact on parent’s motivation and child’s development.

The objective of this study is to provide informational counseling to the parents of two hearing impaired children; to understand in-depth knowledge of parents regarding hearing loss and speech language delay; to help them in decision making process for rehabilitation process

2.Method

2.1 Participants : In the present study one parent has been selected as participant of two children with delayed speech and language with hearing impairment. One participant aged 3 years and other child was 1.5 years whose father aged 32yrs, mother aged 29yrs. Both father and mother have normal hearing. The parents visited with their children at Ali Yavar Jung National Institute of Speech and Hearing Disorders (Divyangjan), Northern Regional Center. Both the children were having congenital hearing loss and were noticed by the parents at the age of 1year. They were residing in U.P. and of lower socioeconomic status. The father was paint worker (full time) and mother worked as maid (part-time). They belong to joint family where the child’s uncle, aunt and grandmother were in the family. Language used in the family and with the child is Hindi.

2.2 Procedure

The demographic details and detailed case history were taken. Brainstem Evoked Response Audiometry (BERA) was administered for both the children. Immittance Audiometry was also done in order to rule out any middle ear pathology. Detailed assessment for Speech and Language was done. Informational Counseling was done for each aspect of the child, its impact and consequences.

Informational Counseling of Audiometry Reports and Hearing Aids

After taking case history and demographic data of the children, audiological evaluation was done for both the children. Parents were then informed about the test results. Both the children were diagnosed as severe to profound hearing loss. During administration of the tests, it was observed that father was very anxious and curious about the treatment, mother was seemed to be calm. When asked, mother was sad and replied, “My both daughters are unable to speak and hear, nothing can be done, doctor has

asked us to come if anything can be done.” The author took around her in the OPD and showed many parents having children with such condition. Parents were asked to talk and share experiences with each other. The parents were eager to know what next. Slowly and calmly, they were informed about continuous use of amplification for rest of their child’s life.

The parents were counseled for soft earmoulds for the trial of hearing aid. Soft earmoulds are recommended for these children as softer materials are thought to have less leakage; safer and comfortable to use. Checking the hearing aid with earmoulds in children is recommended.

Hearing aid trial was done along with soft earmoulds in the next visit after 5 days. Binaural fitting of hearing aids were recommended in order to better speech perception in quiet, group and noisy situations, better sound identification and localization, better sound and tone quality, wider hearing range, no auditory deprivation, feeling of balanced hearing, greater comfort. Benefit of binaural fitting was informed to the parents. While dispensing the hearing aid, parents were informed about use of hearing aid and digitalization. Digital hearing aid enables audiologist to get it adjusted according to the audiogram and need of the patient. Clear instructions given for hearing aid care and maintenance, its battery drainage. Troubleshooting of hearing aid is also explained such as battery check, earmould tubing check, volume control check.

Parents were also counseled for the cochlear implant. The question asked by the mother was whether it will be visible like hearing aids. The cochlear implant has internal and external parts. The external part components include microphone, processor and an magnetic antenna. The internal parts include a magnetic antenna, a receiver and an electrode array. Cochlear implant mapping through softwares should be done as and when necessary. The father expressed a concern about the cost of cochlear implant and surgical procedures. They were informed about the ADIP Scheme under Government of India were informed to the parents where patients can get free of cost amplification such as ADIP Scheme. The parents were informed about the documents needed for availing ADIP Scheme hearing aids. Not only the cochlear implantation surgery is free but also for the next 1 year, the speech-language therapy for the child is free of cost in a Government set up.

Speech –Language Evaluation was done on the next day. The evaluation report reveals delayed speech and language development with hearing loss. Intensive speech and language stimulation was recommended along with speech language therapy. Auditory training with proper amplification would be

the first step. Parents were explained about auditory training and its stages. In addition, they were instructed how they can help the child to hear different sounds, the common environmental sounds, verbal as well as non-verbal, can be used for auditory training. Speech-Language stimulation was also recommended for the children. Parents were asked to encourage speech and language expression and comprehension of these children. They were clearly instructed about do’s and don’ts with the child regarding the communication aspect. In simple words, the parents were told to talk with the child as much as possible. The technique involve encouraging the child to make vowel like sounds first and then consonant-vowel sounds such as /ma, ba/ and reinforcing accordingly, imitating her responses like laughing and other expressions, encouraging imitation of verbal activities like telling rhymes with actions, telling about every activity is done with the child like taking bath, feeding, dressing etc., calling by his name, help him to wave her hands to say goodbye. Reading picture books with actions is an excellent activity to improve attention as well as listening skills. Expansion of the child’s utterance helps the child to attempt to communicate and showing the function, colors, shape of the common household items. Always give the opportunity to the child to talk or communicate. While talking to the child, always use adult like clear but simple speech.

The parents were also taught how to emphasize residual hearing and interact with the child, which is, using audition only. Besides emphasizing on audition only, the basic principle of AVT is to use the developmental pattern of listening, speech, language and cognition to stimulate natural communication just as normal hearing child. It is important for the child to identify, discriminate and comprehend the different environmental sounds as well as speech sounds to increase his vocabulary (both expressive and receptive). This, in turn, will help him to recognize, understand and speak words.

Parents were instructed that when speaking to the child, use a slower rate and quiet voice, minimize background noise such as TV, music. The child needs repetition for every activity. It should be noted that speech and language development is an ongoing process building vocabulary with new experiences. Realistic expectations should be kept. It is a human behavior to expect more from anything and anyone. The professionals should be honest enough about the prognosis and counsel the exact picture to the family members. It should be noted that the rehabilitation process should include family members, friends and siblings for teaching good communication skills. Intensive stimulation of the entire environment is encouraging. Parents were asked to be patient and

motivated. Motivation is needed in order to have a good progress in child's overall development including psychological, academic as well as cognitive skills.

3. Discussion

After the assessments and counseling sessions, both the children were referred for therapeutic sessions and slots have been provided for weekly sessions. They were ready to come twice a week for Speech – language therapy. In addition, the children started wearing hearing aids regularly. They also wanted to apply for Cochlear Implant through ADIP Scheme of Government of India. The parents' attitude towards their child has changed. Mother looked more motivated about therapy sessions and was ready to accompany both the children to the institute. After talking to the audiologists and speech language pathologist, parents were happy and confessed that they were pessimistic about their children's disability. After getting such useful information and talking to other parents, sharing their views, they were quite calm. In the beginning their psychological distress were expressed as anger, frustration and grief. The reason told by them may be inadequate information, no family history of any such disability in the family.

Some considerations have to be made by the audiologist himself to provide informational counseling. The process of information giving must be honest and accurate. Empathetic listening and answering the queries is important. Many patients want to confirm same queries repeatedly. Clinician should be ready to answer the same question several times. Often parents show anger after hearing the diagnosis. The clinician should be calm and patient to tackle such situation. The process of denial is very common. Acceptance comes late with follow-ups and discussions with professionals. The words used should not hurt the parents; alternative terminologies may be a good option [18].

4. Conclusion

Untreated hearing loss may give rise to problems associated with psychological, social and cognitive. Proper amplification with auditory training and speech language therapy or AVT may help the children to cope up with the hearing impairment. While informing the test results, the professional should be empathetic while listening as well as answering the queries of parents. Also, knowledge about various Government Schemes available for such children were often remain unknown by the parents. The audiologist should consider these information to be given to the parents. Parent's cooperation and motivation is an important tool to be

taken into consideration. The entire rehabilitation process as well as parents motivation can take the child to have inclusive education.

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