



COCHLEAR IMPLANT CHILDREN PARENTS SATISFACTION – A STUDY

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ABSTRACT

Objectives: To analyze satisfaction of parents of the children between 1 and 12years of age who had hearing loss and Cochlear Implantation (CI) without any additional disability.

Methods: 50 parents (mother and father) having children between 1 to 12years who did not have any disability other than hearing loss and had cochlear implants were included in the study. “Family-Child General Information Form” and “Parents Satisfaction Questionnaire for families having a Child with Cochlear Implant” were used.

Results: As a result of this research, main source of information for the parents who use many information resources about cochlear implant was audiologists. It was observed that the specialist who can guide and help in cochlear implantation procedures were audiologists. Also, at the end of the study, satisfaction level of the parents and children about cochlear implant was found high.

Conclusion: Although the parents find the information before cochlear implantation sufficient, training about cochlear implant device and more detailed information about the procedure may affect their expectations after the implantation. This study would help to detect information and expectation states of the parents about cochlear implantation, to understand needs and expectations of the parents better and develop the services provided to the patients and their family during different stages of cochlear implant process.

KEYWORDS: Children with Cochlear Implant, Parents expectations, Parents Satisfaction.

INTRODUCTION

Cochlear implants have become the standard of care in the management of children with severe to profound sensor neural hearing loss (Vincenti V et al, 2014). Along with improved technical performance of the device in providing hearing sensitivity within the speech, there has been an expanded patient candidacy and progressive reduction in the minimum age for implantation over the years. Cochlear implantation has been associated with improved hearing as well as speech and language skills and better academic performance in implanted children (Erbasi E et al. 2016). However, the parental involvement and consideration of family perspective in the management of the disease are considered crucial in the follow up and attainment of desirable language and reading skills among cochlear implanted children. Early childhood hearing loss has been associated with unique and long-term challenges for parents in terms of communication difficulties, medical care and academic problems (Hashemi SB, Monshizadeh L.A, 2012). Thus, parenting a child with hearing disability is accompanied by increased stress levels among both parents, while mothers are considered particularly prone to increased stress due to high level of responsibility in



attending appointments, managing hearing devices, and provision of home care and therefore considered to develop different ways of coping strategies than fathers. Parental involvement and consideration of family perspective in rehabilitation and family-oriented interventions are of utmost importance in the management of cochlear implanted children. However, cochlear implanted children have concentrated on the efficacy of the procedure in terms of speech perception and production with limited data on the outcomes from the broader perspectives including the role of family, the effect of hearing loss on the family and the needs and perspectives of parents during rehabilitation (Mostafavi F et al. 2017). When children are diagnosed with loss of hearing, parents tend to enter a process of unexpected and unfamiliar intervention. During this process, the parents deal with various negative emotions such as anxiety, fear, shock, sadness, panic and bereavement (Dogan M, 2010).

Studies have indicated extremely challenging experiences during the implantation and regular use of hearing aid, conduction of auditory verbal educational activities at home and necessity of cooperation with specialists during this process (Luterman D, 2004). Despite the necessity of getting urgent interventions following diagnosis of hearing loss, parents seem to have difficulties in seeking the appropriate centres and specialists. It has also been reported that pediatricians, who are generally the first group contact with the babies, may have an insufficient level of knowledge on informing the parents about hearing loss and Cochlear Implant (CI) applications (Carron JD, Moore RB and Dhaliwal AS, 2006). It is demonstrated in the study that an obligatory and extensive mechanism of addressing issues concerning the nature and characteristics of the disability and the intervention, as well as requirements for the process of intervention is required.

CI process starts a new phase in which complicated emotions such as anxiety, hope and excitement that are experienced by the parents are described following the diagnosis. One of the common study findings indicates that when the parents are given the appropriate information about the process involved in every phase, they can meet the requirements of the process more easily.

Important to note is that certain situations may create difficulties for the parents during the process. These challenges may include; overlapping of the decision making and candidate evaluation phases, referral of the parents via specialist opinions during the decision-making phase, different opinions of the specialists in referral procedures, the presence of open ended criteria, complications that may develop during surgery. Other challenges include; programming problems of the device, obligatory attendance to the auditory-verbal education by the parents, the presence of different approaches in auditory-verbal education, possible technical problems of the device. The financial burden of the device due to lack of inadequate allocation of resources by the government can also affect the different phases of the CI process. Despite all these challenges, the parents seem to prefer surgery to provide a good future for their child. The concept “expectation” evaluates the hope and thoughts of the parents concerning how CI application will contribute to the development and future life of their child. The parents define their expectations as one of the most significant factors bringing the advancement of the CI process into a certain state (Zaidman Zait A, 2007).

Studies have revealed that in CI applications, the expectations of parents are fundamental to provide their child with a development which is consistent with that of their normal-hearing peers and to attend a normal school for their education as well as live a self-sufficient life. In addition to having a good and pleasant future for their child, the parents must meet all requirements of the CI process in order to achieve what they want. The first condition for them to achieve this is to have knowledge about characteristics of the CI process, the progression of the phases, their interrelations and their roles during this process. In the light of this information, it is aimed to have knowledge about knowledge and expectations on CI of the parents of the children who are aged between 1 to 12 years, without any disability other than hearing loss and for whom cochlear implantation was applied, and to develop services and supports before and after cochlear implantation surgery in line with this information.

METHODS AND MATERIALS

50 parents (mother and father) having children between 1 to 12 years who did not have any disability other than hearing loss and had cochlear implants were included in the study. Parents included in the study were randomly selected, regardless of their gender, educational and socio-economic status. In this study, “General Information about family-Child” and “Parents satisfaction Questionnaire” was used as a data collection tools. The questionnaire are evaluates the parent’s knowledge and expectations on cochlear implants. It comprised of questions concerning pre and post operative period. All the Questions are five point likert type scales.

STATISTICAL ANALYSIS

Crosstabs were formed to determine the factors influencing knowledge and expectations of the parents. To determine whether there is no significant difference among the groups in terms of continuous variables, Independent Samples ‘t’ test and One-way ANOVA ‘f’ test was applied. For interpretation of results of all tests, as the level of Significance p-value was determined to be 0.05. It was considered that when the p-value was lower than 0.05 there was a significant difference among the groups and when the p-value was higher than 0.05. There was no significance difference among groups. SPSS 22 was used for entry of questionnaire data, the formation of tables and graphics, estimation of descriptive statistics and conduction of statistical tests.

DATA ANALYSIS AND INTERPRETATION

Table No – 1: Socio-economic profile

Variables	No.of respondents (n=50)	Percentage (100%)
Gender		
Male	42	84
Female	08	16
Age		
Below 30yrs	29	58
Above 30yrs	21	42
Parents Occupation		
Private	31	62
Government	07	14
Others	12	24
Monthly Income		
Below Rs.15000	36	72
Rs.15001 to 25000	06	12
Rs.25001 & above	08	16

Percentage analysis table shows that CI children parents’ were male (84 per cent) and remaining 16 per cent were female. More than half (58 per cent) of the respondents were below 30yrs of age group and remaining 42 per cent were above 30yrs. Majority (62 per cent) of the respondents were worked in private concern, 24 per cent were others categories of workers like, self entrepreneurs and commission agents and remaining 14 per cent were government employees. Vast majority (72 per cent) of CI children of parents were below Rs.15000 monthly income, 16 per cent were Rs.25,001 and above and remaining 12 per cent were Rs.15001 to 25000.

Research Hypothesis: There is no influence between socio-economic status of CI children of parents and their overall satisfaction

Table No – 2: One-way ANOVA difference between socio-economic status of CI children of parents and their overall satisfaction

Overall satisfaction	n	Mean	S.D	Statistical inference
Parents Occupation				
Private	31	43.31	0.518	F=2.134
Government	07	41.12	0.679	0.202>0.05
Others	12	41.35	0.871	Not Significant
Monthly Income				
Below Rs.15000	36	41.31	0.518	F=1.783
Rs.15001 to 25000	06	42.12	0.679	0.381>0.05
Rs.25001 & above	08	41.35	0.871	Not Significant

One-way ANOVA 'f' test table indicates that mean and S.D values of Private (n=31) 43.31±0.518, Government (n=07) 41.12±0.679 and remaining others 41.35±0.871. Therefore, there is no influence between CI children parents' occupational status and their overall satisfaction. The calculated value is greater than table value (0.202>0.05). The mean and S.D values of below Rs.15000 (n=36) 41.31±0.518, Rs.15001 to 25000 (n=06) 42.12±0.679 and remaining Rs.25001 and above 41.35±0.871. Therefore, there is no influence between CI children parents' monthly income and their overall satisfaction. The calculated value is greater than table value (0.381>0.05).The research hypothesis is accepted.

CONCLUSION

In this study, satisfaction levels of both parents and children were determined to be high. In general, the parents found the informing before cochlear implantation surgery as sufficient, the status of being informed more extensively about education for the cochlear implant device and the surgery may influence their post-implantation expectations. In this regard, it is hypothesized that our study will be helpful in determining knowledge and expectation levels of the parents about cochlear implants. Related specialists will better understand needs and expectations of the families as well as development and support services to be provided to the patient and his/her family during different phases of cochlear implant process.

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