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Research Article

Effectiveness of Planned Teaching Program Regarding the Care of Children with Hearing Impairment among the Caretakers in Selected Schools of Sangli District in India

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Abstract

Aim: The aim of the study was to study the effectiveness of planned teaching program regarding the care of children with hearing impairment among the caretakers in selected schools of Sangli district in India.

Background: Hearing impairment means that you cannot hear well out of one or both ears, or you cannot hear at all. Hearing loss can range from mild to severe. There can be mild, moderate, severe, or severe impairment. Hearing loss as a child is a huge burden and handicap. It hurts the child's quality of life because the disability affects all parts of his or her development, either directly or indirectly. The results include not being able to understand speech sounds, which often means not being able to communicate verbally, a delay in learning a language, a delay in cognitive development, a disadvantage in economics and education, social isolation, and a stigma.

Methodology: The research approach for this study is quantitative approach and purposive research design was used. The sample size consisted of 60 caretakers.

Result: The 33.34% of caretakers were between 30 and 40 years, 63.34% of caretakers were undergraduates, place-wise 58.34% of caretakers were from urban, 61.66% of caretakers had previous knowledge. The preceding data show that caretakers who got planned training on hearing-impaired children had higher mean knowledge scores in post-test than pre-test. Thus, structured training on caring for hearing-impaired youngsters worked. Thus, alternate hypothesis wins over null hypothesis.

Conclusion: The structured teaching on care of children with hearing impairment proved to be effective in delivering the knowledge. Hence, null hypothesis is rejected and alternative hypothesis is accepted.

Keywords: Caretakers, Children, Effectiveness, Hearing impairment, Planned teaching program

Introduction

A partial or total loss of hearing in one or both ears is referred to as hearing impairment. There are many degrees of hearing loss. The severity of the impairments might range from slight to significant.[1]

Over 250 million people around the world suffer from hearing loss, with developing nations making up two-thirds of the population. There is a large frequency of deafness in India. The second most frequent reason for impairment is this. About 6.3% of India's population, or 63 million people, have substantial hearing loss. In India, more than 25,000 newborns are born deaf every year. About 40% of this is caused by maternal rubella, while the remaining 40% is caused by genetic mutations.[2]

Children with hearing loss frequently experience delayed speech and cognitive development, which can slow learning

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and make it difficult for them to advance in school. Speech understanding is crucial because if a child with hearing loss does not integrate into society, it will lead to social stigmatization and isolation. Early detection of hearing loss in children and timely treatment, such as speech therapy and hearing aids, is essential for a normal existence.

Hearing loss is a significant public health issue with high societal and financial repercussions. Hearing loss impedes language and academic development in young children and newborns. Adults experience it struggle in their social and professional lives and face stigma. Hearing loss has negative effects on the individual as well as negative social effects.[3]

Conditions that affect an individual's ability to detect or perceive at least some frequencies of sound that are ordinarily audible to members of their species are referred to as hearing impairment or hard of hearing.[4]

People expect the person with a hearing impairment to communicate normally since they do not notice any differences between them and others who have normal hearing. Inappropriate or erroneous responses and repeated requests for the message to be repeated are frequently interpreted as signs of poor communication, lack of motivation, or both. Children with persistent hearing loss encounter the same variety of mental health issues as hearing children, but due to variations in communication and language use, their presentation, treatment, and outcomes can vary.[4]

Objectives

The objectives of the study are as follows:

To assess the existing knowledge regarding care of children with hearing impairment among the care takers.

To evaluate the effectiveness of planned health teaching program on knowledge of care of children with hearing impairment among the care takers.

Methodology

Research design

The research design is used one group pre-test and post-test design.

Research approach

The research approach for this study is quantitative approach.

Sample size

Sample size consisted of 60 caretakers of hearing impaired children

Sampling technique

Simple random sampling technique was used.

Procedure for data collection

Data were collected on October 28, 2015. Data collection technique used was paper and pen test. On October 28, 2015 (pre-test day), the purpose of the study was explained to each caretaker of hearing impaired children and the confidentiality of their response was assured.

Plan for data analysis

Statistical treatment applied for the present research study includes

a. Descriptive statistic to describe various characteristics of data.
   - Frequency (F).
   - Percentage (%)
   - Mean(X)
   - Standard deviation (SD)
   - Standard error (SE)

b. Inferential statistics.

c. Students "*t*" test to find-out effectiveness of PTP on care of hearing impaired children.

Analysis and interpretation of data

Presentation of data is organized in two sections:

a. Section I – Description of demographic data.

b. Section II – comparison of pretest and posttest knowledge.

Description of demographic data

This section deals with the analysis of the demographic data of selected variables such as age, educational status, place, and previous knowledge of the caretaker Table 1.

In age, 26.66% of caretakers were between 20 and 30 years of age, 33.34% of caretakers were between 30 and 40 years, 26.66% were between 40 and 50 years, and 13.34% of caretakers were above 50 years of age. Education-wise 26.66% of caretakers were illiterates, 63.34% of caretakers were undergraduates, 6.66% of caretakers were graduates, and 3.34% of caretakers were postgraduate.

Place-wise 58.34% of caretakers were from urban and 41.66% were from rural area. Knowledge-wise 61.66% of caretakers had previous knowledge and 38.34% of caretakers had no previous knowledge.

Table 1: Distribution of samples according to demographic characteristics (*n*=60)

S. No.	Demographic characteristics	Frequency	Frequency in percentage
1.	Age		
	20–30 years	16	26.66
	30–40 years	20	33.34
	40–50 years	16	26.66
	Above 50 years	08	13.34
2.	Educational status		
	Illiterates	16	26.66
	undergraduates	38	63.34
	Graduates	04	6.66
	Postgraduates	02	3.34
3.	Place of the caretaker		
	Rural	35	58.34
	Urban	25	41.66
4.	Previous knowledge		
	Yes	37	61.66
	No	23	38.34

Section-II

Distribution according to their mean, median, and SD of pre-test and post-test knowledge score regarding care of children with hearing impairment.

Table 2 shows that the "*P*" value is 2.35 which is >0.05. "*t*" value is −3.68 which is less than table "*t*" value at 5% level of significance.

The data indicate that the caretakers who have received planned teaching on care of children with hearing impairment had higher mean knowledge scores in post-test than in pre-test. Hence, it can be concluded that the structured teaching on care of children with hearing impairment proved to be effective in delivering the knowledge. Hence, null hypothesis is rejected and alternative hypothesis is accepted.

Discussion

In 1992, an experimental study was carried out to explore the mother's affective attitude, mother-child communication, and children's compliance with training. The study included seven hearing mothers and seven hearing-impaired children. The youngsters seen in the home circumstances ranged in age from 3 to 9 years. According to the survey, youngsters communicate with their mothers more frequently than with other family members and friends. When the moms had less free-to-free contact with their children, the children had greater behavioral or conduct difficulties.[5]

The descriptive study was carried out in relation to the social problem of hearing challenged children. This study included 200 children in total. Children from the Netherlands or the Dutch-speaking region of Belgium were included in the study. Any additional medical or developmental condition, such as mental retardation or speech motor issues, was an exclusion criterion. The inclusion criteria for the HI group were I substantial hearing losses of at least 40 dB in the best ear, and (ii) pre-or perilingual detection. The 83 HI youngsters were recruited through Speech and Hearing Centers, hospitals, elementary and secondary schools (special schools for the deaf as well as conventional schools), and through HI-specific journals and websites. We approached as many different organizations and schools as possible to cover the whole spectrum of HI youngsters and to reduce any potential selection bias. Except for one child whose parents were both deaf, all HI children were born into hearing families. The children attended schools that encouraged the development of auditory and speaking skills, with or without the use of sign language. The 27 HI children who received a CI ranged in age from 11 months to 10 years and 8 months (M = 4;00, SD = 2;07). The 117 controls were recruited from conventional primary and secondary schools. There were no significant variations in age or gender between the HI and control groups, or between the HI samples (children who received CIs versus conventional hearing aids). There were relatively little missing data in the sample: All demographic and medical information was gathered. Only the degree of hearing loss and the age at implantation were missing (14% and 18.5%, respectively).[6]

Table 2: Pre-test and post-test knowledge scores n=60

Aspect	Mean	SD	*t*-value	*P*-value
Pre-test	10.23	2.82	−3.68	2.35
Post-test	16.35	1.67		

Examined loneliness in 119 rural children aged 65 and under in relation to social and emotional isolation. A 5-point scale with options ranging from completely deaf to good was used to evaluate hearing. Less loneliness was substantially correlated with better hearing (r = 0.21, *P* = 0.05). Similarly, Chen 1994 conducted a small study (*n* = 88, male = 45, female = 43) that found that only women in the subgroup analysis were related with loneliness (r = 0.23, *P* = 0.01) and worse self-esteem (r = 0.26, *P* = 0.008). However, the findings raise questions about how hearing loss is often experienced and how it affects people differently.[7]

Bess *et al*. (1989) reported that the severity of hearing loss was strongly linked with the lower scores on all three subscales in a classic, commonly cited cross-sectional research of 153 (96 females and 53 male) elders >=65 (mean age =72 years) from six PHCs. After adjusting for demographic and health factors, each 10 dB increase in hearing loss was linked to increases in the physical subscale score of 2.8 points (*P* = 0.001), the psychosocial subscale scores of 2.0 points (*P* = 0.001), and the total scale score of 1.3 points (*P* = 0.02).[8]

Early intervention for children with hearing loss and mothers' participation. The objective is to assess the role played by a model of maternal factors in explaining mothers' participation in early intervention for their hearing-impaired children aged 1–7 years. Anxiety, curiosity, anger, and motivation were four personal traits envisaged as exogenous variables in the model of maternal factors determining mothers' involvement in intervention, and two context-based maternal perceptions were proposed as mediating variables. One hundred and fourteen mother-child pairs who participated in Israel's Kesher early intervention programmed (67 boys and 47 girls) made up the sample. A high degree of match between the theoretical model and the empirical facts was revealed by path analysis. Understanding the special value of mothers' traits for their participation in their children's early intervention programs was the main topic of discussion.[9]

Between October and December 2006, a questionnaire analysis was used to conduct the study that is being presented here. All of the deaf and hard of hearing schools in the German state of Bavaria received a variety of questionnaires, along with instructions to distribute them to all parents of kids between the ages of 4 and 12. It was specifically asked that both parents complete their questionnaires independently of one another. Mothers and fathers received identical questionnaires. About 35.5% of respondents responded. We ultimately selected 213 pairs of questionnaires that were each completed by the mother and father of the corresponding child. Because the father samples were so small and extremely selective prior, it was impossible for us to compare the experiences of mothers and fathers in

a meaningful way. There were no appreciable disparities in the parents' educational status and that of the general German population, according to Statistics Bundesamt (Federal Statistical Office Germany), 2003 (2 = 2.23, df = 2, $P = 0.328$).[10]

The exploratory study focused on the difficulties parents of hearing-impaired children face. It was discovered that, although all 115 parents who were chosen for the study claimed to receive assistance and support from their kids, they all also felt a sense of satisfaction from carrying out their parental responsibilities and discovering more about themselves. The burdens they felt personally and professionally, as well as the severity of the child's condition, had no bearing whatsoever on how satisfied they felt.[11]

Conclusion

The mean knowledge scores of the caregivers who had planned instruction on how to care for children with hearing impairment were higher in the posttest than in the pre-test. Therefore, it can be said that the systematic instruction on how to care for kids with hearing loss was successful in imparting the information. Therefore, the alternative hypothesis is accepted and the null hypothesis is rejected.

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Conflicts of Interest

There is no any conflict of interest for this research study.

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