

Aural Rehabilitation among Clients with Hearing Loss

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ABSTRACT

Hearing loss is insidious in its presentation but devastating in its personal, family, and social impact. The sense of hearing is a means of communication for human beings and helps them keep in touch with reality. Hearing impairment can hinder the communication with others and diminishes the individual's aesthetic enjoyment of major aspects of daily living and can adversely affect the quality of life. A quasiexperimental pre- and posttest control group design was chosen for this study. By using nonprobability purposive sampling technique, 60 samples were selected in which 30 samples were assigned to experimental and 30 to the control groups. The findings show that in the experimental group, the posttest mean score of knowledge was 20.9 with standard deviation (SD) 2.07, whereas in the control group, the posttest mean score was 6.87 with SD 1.69. The calculated "t" test value $t = 28.689$ was found to be statistically significant at $p < 0.001$ level that clearly shows that the self-instructional module on knowledge of aural rehabilitation was effective.

Keywords: Aural rehabilitation, Hearing loss, Self-instructional module

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INTRODUCTION

"Blindness separates us from things but deafness separates us from people."

–Helen Keller

The sense of hearing is a means of communication for human beings and helps them keep in touch with reality. The hearing impairment can hinder the communication with others and diminish the individuals' aesthetic enjoyment of major aspects of daily living and can adversely affect the quality of life. Hearing loss exists when there is diminished sensitivity to the sounds normally heard. The term hearing impairment or hard of hearing is usually reserved for people who have relative insensitivity to sound in the speech frequencies. The majority of permanent impairment is sensorineural that is related to diseases of deformity of cochlea or cochlear nerve.

Hearing disorders are the primary handicapping disability worldwide. In India, about 20% of population has some degree of hearing loss. The major causes of hearing loss in adults are due to aging (presbycusis), noise exposure, disease, and injuries. Nearly 50% who need assistance with hearing disorders are 65 years of age or older. The major causes of hearing loss and ear disease in India are earwax (15.9%) which was the most common cause of reversible hearing loss. Noninfectious causes, such as aging and presbycusis, are the next most common causes of auditory impairment in India (10.3%). Middle ear infections, such as chronic suppurative otitis (5.2%) and serous otitis media (3%), are the leading causes of hearing loss. The other causes of hearing loss include dry perforation of tympanic membrane (0.5%) and bilateral genetic and congenital deafness (0.2%).¹⁻⁴

According to the World Health Organization (2013), an estimated over 360 million people are suffering from hearing loss all over the world. As the population ages globally, more people than ever before are facing hearing loss.⁵ In India, there are approximately 63 million people, who are suffering from significant auditory impairment; this places the estimated prevalence at 6.3% in Indian population. According to National Sample Survey Organization (2001), currently there are 291 persons per one lakh population are suffering from severe to profound hearing loss. With such a large

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number of hearing impaired are young Indians, it amounts to a severe loss of productivity, both physical and economic problems.

Aural rehabilitation refers to modalities employed by the audiologists to maximize the hearing-impaired patients' ability to live and communicate in the world of sound. The modalities of audiological intervention include the use of physical instruments, such as hearing aid, group amplification systems, cochlear implants, tactile aids, and assistive devices as well as therapeutic approaches like patient and family counseling, developing effective communication strategies, and auditory-visual training.

Professionals with an educational background would assist or help clients in finding community resources, defining facility, family member roles, addressing concerns about the future. Educational program for these individuals is an essential part of quality health care today. Although the effectiveness of therapeutic regimen is to be beneficial, clients must be motivated to share responsibility in maintaining good health. Hickson et al. stated that Active Communication Education (ACE) program is effective among older people with hearing impairment and indicates that such communication programs have an important place in the audiological rehabilitation of older adults.⁶

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of self-instructional module on knowledge of aural rehabilitation among clients with hearing loss at Siva ENT Hospital.

Objectives

- To assess the degree of hearing impairment among clients with hearing loss.
- To assess the pre- and posttest levels of knowledge regarding aural rehabilitation for clients with hearing loss in the experimental and control groups.
- To determine the effectiveness of self-instructional module on knowledge regarding aural rehabilitation among experimental group of clients with hearing loss.
- To compare the posttest level of knowledge regarding aural rehabilitation for clients with hearing loss between experimental and control groups.
- To associate the level of knowledge regarding aural rehabilitation with selected demographic variables of clients with hearing loss in experimental group.

Methodology

The study was conducted in Siva ENT Hospital, Chennai, after receiving permission from the director of the hospital. By using nonprobability purposive sampling technique, 60 samples were selected, out of which 30 were assigned to experimental group and 30 to the control group. The pretest was conducted using Ventry and Weinstein hearing impairment inventory and self-structured questionnaire for both experimental and control groups. Self-instructional module was distributed to only experimental group and routine care was provided to control group. The posttest was conducted on the 7th day for both the groups. The researchers included the following components in the aural rehabilitation module, hearing aid and its maintenance, bone-anchored device, tooth-anchored device, cochlear implants, sound therapy, auditory training, lip-reading, and sign language.

RESULTS

Frequency and Percentage Distribution of Degree of Hearing Impairment among Clients with Hearing Loss

In the experimental group, majority (18, 60%) of the clients had mild hearing impairment, 11 (36.67%) clients had moderate hearing impairment, and only one (3.33%) client had severe hearing impairment. In the control group, majority (17, 56.67%) of the clients had mild hearing impairment and 13 (43.33%) clients had moderate hearing impairment.

The data presented in Table 1 show that in the experimental group, the posttest mean score of knowledge was 20.9 with SD 2.07, whereas in the control group, the posttest mean score was 6.87 with SD 1.69. The calculated “*t*” test value was 28.68 and was found statistically significant at $p < 0.001$ level that clearly shows that the self-instructional module on knowledge of aural rehabilitation administered on clients with hearing loss in the experimental group had significant improvement in their posttest level of knowledge than the clients in the control group.

DISCUSSION

The present study intended to assess the effectiveness of self-instructional module on aural rehabilitation among patients with

Table 1: Comparison of posttest knowledge scores on aural rehabilitation among clients with hearing loss between the experimental and control groups, ($n = 30$)

Posttest	Mean	SD	Unpaired “ <i>t</i> ” value
Experimental group	20.9	2.07	$t = 28.689$
Control group	6.87	1.69	$p = 0.000, S$

$p < 0.001$; S, significant

hearing loss. The findings revealed that the overall pretest level of knowledge on aural rehabilitation reveals that majority (29, 96.67%) had inadequate knowledge and only one (3.33%) had moderately adequate knowledge in the experimental group, whereas in the control group, 30 (100%) of them have inadequate knowledge regarding aural rehabilitation. The experimental group showed an increased level of knowledge after the administration of self-instructional module on aural rehabilitation. The findings of this study were similar to the study done by Manchaiah et al. to assess the effectiveness of aural rehabilitation programs using the “patient journey” model in the Internet-based prefitting counseling of a person with hearing disability among 158 participants. Hence, hypotheses H1 and H2 were accepted.⁷

CONCLUSION

As knowledge is a powerful resource for practice, nurses need to take an active role in designing instructional material for their clients. Hence, it is of paramount importance that people with hearing loss receive ongoing, quality education using innovative methods that are tailored to their needs and delivered by skilled healthcare providers. Thus, the study concludes that the self-instructional module had a significant effect by improving the level of knowledge on aural rehabilitation among clients with hearing loss.

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