



DESIGN ON AMPLIFICATION APPARATUS SONORA INDIVIDUAL: THE VISION OF DEAF PATIENTS EXECUTIVES

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ABSTRACT

Introduction: The sense of hearing is very important for human communication. Hearing loss makes the individual limited or incapacitated to play his role in society. One of the instruments used for auditory rehabilitation is the individual sound amplification apparatus (ISAA). **Objectives:** To investigate the deaf patients' conception of the benefits of the individual sound amplification device (ISAA), in addition to identifying the information they have about ISAA. **Methods:** Field research of the descriptive type in which a structured questionnaire was applied with seven objective questions and a subjective one according to all the ethical aspects provided by Resolution No. 466/12 of the CNS / MS. The same was addressed to four (4) persons responsible for deaf patients who use ISAA in their daily lives and who follow up at the Clinical School of Speech-Language Pathology and Audiology at Centro Universitário de João Pessoa-PB. **Results:** According to the research participants, it was observed that the hearing aid provided benefits to the deaf in terms of improved sound perception, oral language development, socialization of the deaf with the listening society, improvement in socialization of the deaf with another deaf and in the ability of the deaf to read. **Conclusion:** The use of ISAA together with speech and language therapy favors the sound perception of the deaf, as well as the development of oral language, promoting a better interaction with the hearing society.

Keywords: Speech therapy. Deafness. Family.

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INTRODUCTION

Hearing is fundamental in the process of language and speech development in children and adults, since it enables them to coexist without prejudice and / or constraints in relation to society. Deafness makes it difficult to perceive sounds, impairing comprehension of words and compromising the development of communication. The quality of life of adults is compromised, causing difficulty of understanding, compromising social, emotional and professional factors, as well as disrupting the development of language and learning in children.

Deafness of severe and profound degree prevents the individual from hearing the various sounds, preventing the acquisition of oral language. Hearing loss is measured in decibels (dB), and according to grade, can be classified as Light when auditory thresholds range from 26 to 40 dB; Moderate, from 41 to 55 dB; Severe, thresholds from 71 to 90 dB; and Deep, when auditory thresholds exceed 91 dB¹.

When a person presents any degree of hearing loss may have difficulty developing oral language. Therefore, the acquisition of oral language is only possible with speech-language monitoring so that the deaf person develops this ability, but this ability is only possible if parents and / or family members are present during this process. The family should be involved in the rehabilitation process, with counseling and clarification on the subject, providing parents with the opportunity to learn to deal with deafness ². It is of the utmost importance that the diagnosis be made early so that there is a good prognosis.

Currently, there are several ways to supply the auditory deficit, such as the Individual Sound Amplification Apparatus (ISAA) and the Cochlear Implant, and can help children with hearing loss communicate through oral language. These hearing aids are systems responsible for increasing the intensity of environmental sounds so that individuals with

hearing loss can perceive them. Sound amplification does not only offer environmental signals, but also makes speech sounds audible and satisfactory, as well as facilitating the education and psychosocial and intellectual development of the hearing impaired³.

The authors⁴ reinforce the importance of hearing aids, stating that it serves to amplify the sound, but to have significant results, there must be a joint work with speech therapy that will provide support in the construction of oral language.

However, for successful adaptation of the ISAA, there is a need for guidance and counseling in the selection and adaptation process. Therefore, it is extremely important that the professional knows the real difficulties of the patients regarding the proper use of amplification⁵. The authors³ emphasize that, for the success of audiological rehabilitation, a broad work is required to adapt hearing aids, with medical and speech-language pathology, to adjust and periodically verify the technical conditions and benefits obtained with the use of these equipments.

METHODS

This research is transversal, field, descriptive type according to objectives, the sources of information are field under the nature of quantitative and qualitative data that were classified and analyzed statistically.

The procedure method for analyzing the qualitative data was performed by content analysis, where the interviews were transcribed by the researcher from the interviewees' speech. Information was considered that meets the needs proposed by the objectives. And the procedure method used to analyze the quantitative data was the statistical one.

The data collection was systematic, using as a selection criterion 4 (four) responsible of deaf patients using the hearing aids, this data was provided by the Clinical School of Speech and Hearing Therapy of the University Center of João Pessoa. The instrument used was a

questionnaire structured with 08 (eight) questions of which 7 (seven) were objective and 1 (one) subjective questions, addressed to the responsible ones about the information they have about the ISAA, listing the advantages and disadvantages referred to by those responsible and describe their expectations about the ISA. The sample was determined for convenience.

As a requirement for the beginning of data collection, the research project was sent to the analysis and opinion of the Ethics Committee of the University Center of João Pessoa - UNIPÊ, fulfilling the requirements of Resolution 466 \ 12 of the National Health Council (NHC). Only after the approval of the Ethics Committee, CAAE: 45960015.1.0000.5178 on April 11, 2016, the questionnaire was applied with the family members.

RESULTS

Concerning the degree of hearing loss, 100% of the family members answered that the deaf children they accompany have bilateral hearing loss.

Regarding the time the deaf began to use the ISAA, 01 (hum) refers to 25% reports that it was months after the discovery of deafness and 03 (three), 75%, years after the discovery of the hearing loss. The data are in agreement with the author ⁶ to affirm that, when the deafness is diagnosed early, more chances the individual has of rehabilitation being able to supply his needs before the society. This early diagnosis, together with the speech-language intervention, is determinant for linguistic success.

As for the advantages of ISAA, those responsible could answer more than one alternative. Therefore, the 4 (four) relatives, corresponding to 33%, reported that one of the advantages is to improve sound perception; 03 (three), 25%, reported that it improves the socialization of the deaf with the listener society and other 03 (three), 25%, report that helps in the development of language; (08.33%), answered that the hearing aid improves the

socialization of the deaf with another deaf and another 01 (hum) responsible, 08.33%, refers to improving reading ability. Data according to the authors^{3,7} when they state that sound amplification offers environmental signals, makes speech sounds audible and satisfactory, enabling a better quality of life.

When asked about possible disadvantages with the use of hearing aids, 02 (two) relatives, referring to 50% of the subjects reported that there may be rejection of the individual in public use, 02 (two) participant, 50% answered that the individual is embarrassed to use the hearing aid. Probably these reports occur due to the aesthetic factor, in which some prostheses are visible, being able to leave the individual who uses it ashamed for the use in public. The authors emphasize that, currently the intra-aural prostheses are very used by the users, due to the aesthetic factor, because they are constructed according to the auricular mold of each individual or already they are ready, being only embedded within him . They also report that satisfaction with the use of ISAA is constructed according to the subjective impressions that the individual has, so that, until there is acceptance, there will never be satisfaction.

All the relatives, 100%, answered that there was progress in the development of the deaf accompanied after the use of hearing aid in aspects related to the improvement of sound perception, oral language development and interaction with the listeners. This is due not only to the use of hearing aids, but also to the speech-language pathology they have undergone. Family members are being consistent with the researchers ⁴ when they affirm that the ISAA serves as amplifier of the sound, but to have results, there must be a work in conjunction with speech therapy, providing support in the construction of oral language.

CONCLUSION

The use of the individual sound amplification apparatus in an early manner is essential for

the development of the deaf, promoting their rehabilitation in order to meet their needs in society.

The research also reports that the ISAA has the advantages of improving sound perception, helping the deaf to interact with the listening society, as well as assisting in the development of oral language. However, it is important that the diagnosis be made early and that follow-up in order to minimize the impact of deafness on the lives of these individuals.

It has been observed that the disadvantage that ISAA can bring, reported by relatives, is the fact that the deaf person may feel ashamed about their use. However with the advancement of technology, there are several models of ISAA increasingly discreet, valuing the aesthetics of users.

The data also report the relevance of the use of ISAA in speech therapy so that the deaf can develop a more effective communication.

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