



AWARENESS LEVEL OF NEW BORN HEARING SCREENING AMONG NURSES

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ABSTRACT

Permanent hearing loss is one of the most common congenital disorders. Universal newborn hearing screening confronts this issue by screening every baby for a possible hearing loss at birth, thus leading to early intervention. Children with bilateral hearing loss had improved vocabulary skills if they all had a chance for early detection and intervention. This study therefore aimed to find the level of awareness among nurses regarding this screening program. Eighty nurses were confronted with a face to face interview using a validated questionnaire which consisted of polar questions. Responses were scored based on the awareness level of each subject. Further statistical analysis was done using SPSS software. The results obtained revealed that only 18% of nurses had an awareness about the newborn hearing screening procedure. This reflects an alarming need for the awareness to improve the quality of life for an individual with hearing impairment.

Key words: Awareness, Newborn hearing screening, Early detection and intervention

INTRODUCTION:

Permanent hearing loss is one of the most common congenital disorders, with an estimated incidence of one to three per thousand live births (Hyde, 2005; Nelson, Bougatsos, & Nygren, 2008). Hearing impairment is a serious but grossly neglected condition in India. The country also suffers a huge economic impact due to lost productivity, higher unemployment, and lower wages for the hearing impaired (Varshney, 2016). It has been noted by the WHO that half the causes of deafness are preventable and about 30%, though not preventable, are treatable or can be managed with assistive devices. Thus, about 80% of all deafness can be said to be avoidable (World Health Organization, 2010).

The importance of early detection and intervention started gaining emphasis back from 7 decades. A probable strategy to ensure that children with hearing loss are identified and treated early is to ensure that every baby is screened for possible hearing loss at birth in hospitals. With growing technological advances, newborn hearing screening programs has been adopted in the western countries for the past few decades. The purpose behind legislation endorsing Universal new born hearing screening (UNBHS) was i) to promote early identification and intervention for affected newborns and ii) to identify late onset or progressive hearing loss in children with risk indicators who may have passed the newborn screen. NBHS thus provides early detection of hearing disorders, enabling intervention before six months of age (Canale et al., 2006). A hearing health program must bear four stages: detection or hearing screening, audiological diagnosis, hearing aid fitting and the intervention of an audiologist (Canale et al., 2006). But the primary step in a healthy hearing program is the level of awareness shown by an individual or the society.

NEED FOR THE STUDY:

Children with bilateral hearing loss had improved vocabulary skills if they met all of the Early Hearing Detection and Intervention (EHDI) guidelines (Yoshinaga-Itano, Sedey, Wiggin, & Chung, 2017). It is important to note that without hearing a child cannot develop speech and language. Early identification and intervention can prevent severe psychosocial, educational, and linguistic repercussions. Infants who are not identified before 6 months of age have delays in speech and language development. Intervention at or before 6 months of age allows a child with impaired hearing to develop normal speech and language, alongside his or her hearing peers. But in order to attain a nearly identification and intervention, awareness about UNBHS becomes important.

AIM:

To find the awareness level about the concept of new born hearing screening among nurses in Tiruchirappalli

SUBJECT SELECTION:

Eighty nurses within the age range of 24 to 35 years with a minimum work experience of 2 years with exposure in the field of neonatal care were considered for the study. A convenient sampling protocol was used to select the subjects for the study.

MATERIAL AND METHOD:

A questionnaire was prepared in the native language (Tamil) to get a clear unbiased consensus on the awareness level of NBHS among nurses. The questionnaire was mainly targeted on 2 domains involving the concept and advantages of NBHS and the concept of early identification and intervention of hearing loss. It comprised of 10 polar questions which was meticulously prepared and validated by experienced professionals in the field.

The cross sectional survey involved a face to face interview with the nurses in the hospitals in Tiruchirappalli. Before the commencement of the test, the subjects were told about the purpose of the study and were instructed to answer by saying 'yes' or 'no' to the polar questions. Adequate time was given for the subject to respond and clarification regarding certain terms in the questionnaire was given when requested.

ANALYSIS:

The responses obtained were averaged based on the scores given for each question. When the answer reflected that the subject had an awareness about the topic being discussed, then a score of 2 was marked against the respective response. When the subject revealed a partial awareness then a score of 1 and when no awareness was noticed a score of 0 was marked correspondingly. The scores obtained by individual subjects was summed to get total scores of an individual. The scores were then entered in SPSS 23 software to perform further statistical analysis.

RESULTS:

Statistical test revealed that only 42.5 percent of nurses showed awareness towards the NBHS programme while the remaining 57.5 percent still required awareness. The minimum score obtained by the participants was 1 while the maximum score extended upto 12. There was a positive correlation reported between the number of work experience and the awareness of NBHS. As the number of years of experience increased, the awareness about newborn screening procedure also increased.

DISCUSSION:

With increasing attempts to universalize the newborn hearing screening, the level of awareness among people is also increasing gradually. But even today the awareness of NBHS is not fully fledged. The real issue in India is the woeful inadequacy of facilities of any type for the deaf (Varshney, 2016). It is important to note that without hearing a child cannot develop speech and language. Hence, the aim should be to recognize deaf child before the age of 6 months so the critical period can be utilized maximally. Unfortunately, hearing loss is often not detected before the critical period, especially in rural areas due to the poor awareness about deafness and its relation with speech and language development as well as lack of infrastructure such as the non-availability of ENT surgeon, audiologist and speech therapist. Thus different sources can be used to create awareness about NBHS and let the awareness extend in urban as well as rural areas.

CONCLUSION:

If the awareness level of NBHS is not high enough in a urban area, the plight of the rural areas are inconceivable giving a distress signal for the need for maximizing awareness. Since awareness is the key to early identification and intervention, it should be maximized, to empower the individuals with hearing impairment to have a better quality of life. Let us not be 'deaf for the deaf'. Use a sympathetic approach combined with medical expertise, and modern technologies but early detection of deafness is absolutely necessary to minimize deaf cases in our country.

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