

TITLE

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I. INTRODUCTION

The process or act of conveying a message from a sender to a receiver through a channel with noise interference is known as communication (Devito, 1986). Humans are distinguished from other creatures by their ability to communicate their thoughts and feelings. Listening to voices and sounds around them is the first step in learning a language. Hearing loss in babies should be regarded a severe issue because it interferes with language development. Once a hearing loss has been discovered medical or audiologic care can be started right away and they should have a full audiologic evaluation by an appropriately accredited audiologist (Northern and Downs, 2002).

Hearing impairment is the most common congenital anomaly, affecting 2 to 4 infants out of every 1000. Children with hearing impairment who are identified early and receive appropriate intervention before the age of six months develop significantly better language ability than those who are identified later (Farid, Seoud, Dessouky, Shabrawy and Mounir, 2012).

"Early intervention is the process of providing services, education and support to young children who are deemed to have an established condition, those who are evaluated and deemed to have diagnosed physical or mental condition or an existing delay or children who are at risk of developing a delay or special need that may affect their development or impede their education," according to part C of the Individuals with Disabilities Education Act of 2004. (Joint Committee on Infant Hearing, 2007).

Universal newborn hearing screening programs in different countries were launched in the early 1990s. Significant progress has been made in the creation and implementation of screening, audiologic examination, amplification device fitting, medical management of children with hearing loss and family support programs.

In India, neither universal nor high-risk screening exists. Hearing loss is observed to affect 1 to 6 out of every 1000 babies in India. Only screening high-risk newborns misses half of the babies with hearing loss (Jewel, Varghese, Singh and Varghese, 2013).

Newborn hearing screening, audiological evaluation and management, there is still a need for provision of high-quality early intervention for children with hearing impairment. As reported by Centers for Disease Control and Prevention, 96.9% of all newborns were screened in 2008. Two-stage centralized newborn hearing screening program was launched in Cochin in January 2003, the newborns are first tested with otoacoustic emission, and then with auditory brainstem response if they fail the OAE twice. ABR is performed on all neonatal critical care unit neonates. This successful newborn hearing paradigm was spread to the entire Ernakulam district, as well as certain hospitals in the neighboring districts of Kottayam and Thrissur. A total of 1,01,688 babies have been examined since then, with 162 infants having irreversible hearing loss. This realistic concept of centralized neonatal hearing screening needs to be duplicated in other Indian districts as well as other underdeveloped countries (Paul, 2016).

A robust interconnection between the hospital, families, physician, audiologist, speech language pathologist, and health care providers in the neighborhood is crucial for the successful implementation of the Early Hearing Loss Detection and Intervention (EHDI) program. The fulfilment of EHDI goals was hampered by a number of variables including personal issues, the child's financial troubles and a lack of proper implementation of screening procedures.

Infants and toddlers with disabilities should receive early intervention services from birth to age three, according to the Individuals with Disabilities Education Act, 2004, PART C. Individualized Family Service Plans guide the delivery of these services (IFSP).

A key component of rehabilitation is assisting the hearing-impaired person in reaching his or her full potential by utilizing personal resources to overcome the challenges posed by hearing loss. Audiologic rehabilitation is a multidisciplinary strategy that enlists the help of a variety of experts in a variety of contexts including social workers, psychologists, rehabilitation counsellors, and educators. Although the cooperation of many clinicians is necessary for efficient audiologic rehabilitation, the audiologist and speech language pathologist play the most important roles.

Amplification, communication rehabilitation, counselling and other services such as educational alternatives for the hearing impaired are among the management techniques provided to an individual with hearing impaired. Hearing loss has a significant impact on communication capacity, hence audiologic rehabilitation is a crucial step. Hearing loss can also have a significant impact on a child's psychological and social development.

Hearing loss can now be detected shortly after birth thanks to technological advancements. Early detection and intervention techniques began within the first six months of a child's life would be a gold standard for the child's overall development.

Sruthitharangam project in Kerala was launched with the goal of providing cochlear implants to children selected for cochlear implantation by regional and state level technical committees as well as providing financial support for auditory verbal therapy to children who have undergone cochlear implant. Service is offered to children who match the eligibility criteria under this initiative.

Academic achievement of individuals with hearing impaired has improved compared to previous year. Even so there are other severe issues in this sector the most serious one is the significant absence of resources provided to minority children (Schow, Ronald and Nerbonne, 1996).

Kattunayakanare tribes who had been the true inhabitants of Wayanad forest. As the name indicates they were once the kings of jungles. They rarely mix with other tribes and still follow black magic and sorcery. They are completely dependent on forest and forest products and subsist on honey, roots and barks of plants and small animals that they trap or fell with their bows and arrows. They are also known as Kurumas as they collect honey from the forest.

The kattunayakan are a tribal community found in the tri-state region of Tamil Nadu, Kerala, and Karnataka particularly in the Nilgiri Wayanad plateau. Kattunayakan are one of the designated vulnerable tribal groups, they receive special attention and a variety of developmental programs from both the government and non-governmental organizations. Despite all of the government's efforts, Kattunayakan living conditions remain deplorable. Kattunayakan are completely uninformed of their rights and services. They have a rudimentary understanding of the majority of health conditions, such as hearing loss and the significance of rehabilitation (Premalatha, 2015).

Despite the fact that research on kattunayakan tribes' health have been conducted, none have been focused or conducted to assess their understanding on infant hearing loss and its rehabilitative components. The present study's goal was to assess their awareness level of these concerns as well as to educate them on essential topics including infant hearing loss and rehabilitation.

II. REVIEW OF LITERATURE

Hearing loss is the main contributor to disability in low and middle-income nations. New born and infant hearing testing followed by early rehabilitation is strongly encouraged in industrialised nations as an effective method of disability prevention. It is abundantly obvious that early hearing screening and intervention enhances later speech and language outcomes which in turn serves to improve the child's socioeconomic circumstances.

In accordance with section C of the Individuals with Disabilities Education Act of 2004, "Early intervention is the process of providing services, education and support to young children who are deemed to have an established condition those who are evaluated and deemed to have a diagnosed physical or mental condition, or an existing delay, or children who are at risk of developing a delay or special need that may affect their development or impede their education." Joint Committee on Infant Hearing (2007).

Screening methods have encouraged screening programmes in the majority of industrialised economies. Otoacoustic emission recording and automatic auditory brainstem response measurements are the two primary objective and quick physiological procedures that led to the widespread adoption of newborn hearing screening. Currently, before being released from a maternity hospital, one of these tests must be completed. Unfortunately, in many underdeveloped countries the primary method of detecting childhood hearing impairment is still family suspicion of a hearing condition. The child may not receive a diagnosis until they are 2 years old or older (McPherson, 2012).

In India, 63 million people (6.3%) experience severe hearing loss. Children with hearing impairment lag behind their classmates in language, cognitive and socioemotional development because they do not have enough opportunity to learn language. Delays in these areas could result in adulthood with lower levels of education and employment. Early detection and intervention in turn aid in reducing the need for substantial habitation during the school years and aid in improving severe linguistic and communicative deficits (Tuli, Pal, Sengupta and Bhutia, 2012).

A questionnaire-based ascertainment research was conducted by Fortnum, Davis, Summerfield, Marshall, Davis, Bamford and Hind (2001) to determine the prevalence of persistent childhood hearing impairment in the United Kingdom and the implications for a national neonatal hearing screening programme.

Up to 90% more kids are diagnosed with a permanent childhood hearing impairment by the time they become 9 years old. This demonstrates the need for paediatric audiology services to be able to recognise and confirm these instances quickly.

Danhauer & Johnson (2006) looked into how parents felt about the new screening practises. 36 parents of 106 kids born between March 2000 and February 2003 were evaluated for the study. Parents' opinions on the neonatal hearing screening programme were generally favourable across the board, according to an 11-item questionnaire about screening and outcomes, but compliance with intervention services needed to be increased.

Shanker (2007) investigated the effect of maternal education on awareness about the cause of hearing loss and new born hearing screening in a tertiary health care hospital in Mumbai and concludes that the literacy of the mother has no effect on the awareness they have about the cause of hearing impairment and newborn hearing screening.

Jatto, Ogunkagede, Adeyemo & Saiki (2018) determined the knowledge on mothers perspective of new born hearing screening programme and says that awareness of new born hearing screening was poor among the mothers.

Sharma, Bhatari, Kunwar & Prabhu (2021) analysed knowledge and attitude of nurses about new born hearing screening in Nepal and concludes that lack of proper knowledge and practice of new born hearing screening in Nepal.

Yahya, Muneef, Majeed, Alhashem & Lhalifah (2020) investigated maternal knowledge and awareness of neonatal hearing loss: a local survey from Saudi Arabia and concluded that majority of mothers have a high level of awareness of risk factors regarding infant hearing loss, and the cause of hearing loss, but overall knowledge of hearing loss that is delayed birth cry, neonatal jaundice, high fever, risk factor is relatively poor.

Alqudah & Bashaireh (2020) determined knowledge, attitude and management of hearing screening in children among family physicians in the kingdom of Saudi Arabia and concluded that physician have good general background about the benefit of EHDI, but insufficient knowledge in other domains of hearing loss

Kumar & Mohapatra (2011) reported the status of new born hearing screening in India they concluded that late identification of hearing loss presents a significant public health concern hearing loss are usually not identified until 2yrs of age, which result in significant delay in speech, language, social, cognitive and emotional development.

Ferguson, Woolley & Munro (2016) conducted a study to examine the impact of self-efficacy and expectations for hearing aids and also checked on the readiness to improve hearing. Outcome measures of hearing aid use were measured at six weeks follow up, using Glasgow hearing aid benefit profile and satisfaction with amplification in daily life. It was seen that the assessment of expectations of hearing aids, readiness to improve hearing, may be useful in identifying individuals attending audiology clinics who would most likely benefit from hearing aid provision.

Vashistha, Seri, Singh & Verma (2016) carried out a study to find out the prevalence of hearing impairment in high-risk infants, and it was seen that out of 100 high risk infants born between 2013 and 2014, 15 were found to have hearing impairment. The high prevalence of hearing impairment in this population is an indicator of the importance of early audiological testing in them.

Wen, Zhao, Li, Yu, Cheng, Deng, Yuan & Huang (2022) systematically reviewed of new born and childhood hearing screening around the world: comparison and quality assessment of guidelines and they concluded that the results may help to advance the quality of hearing screening guidelines in clinical practice and guide evidence-based updates.

Picou, McAlexander, Jirik, Morriss & Tharpe (2022) evaluated new born hearing screening brochures and parental understanding of screening result terminology and came to a conclusion that based on four study criteria of brochure suitability, 88% of available state-level new born hearing screening brochures should be modified to make them readily understandable by a broad educational demographic. Discretion in use of the term "refer" should be made when indicating screening results, because the term is not readily understood.

Itano, Sedey, Mason, Wiggin & Chung (2020) analysed Early Intervention, Parent Talk, and Pragmatic Language in Children With Hearing Loss and came to a conclusion that the importance of paediatricians and other health care professionals counselling parents about the value of adherence to the Early Hearing Detection and Intervention 1-3-6 guidelines with regard to intervention outcomes. The strong association between amount of child-directed parent talk in the first 4 years of life and pragmatic language outcomes at 7 years of age emphasizes the need for professionals to encourage parents to talk to their children as much as possible.

Nickbakht, Meyer, Scarinci & Beswick (2019) did a qualitative investigation on families' need in the transition to early intervention after diagnosis of hearing loss and concluded that Families and professionals in this study identified a wide range of family needs during the transition to early intervention. The results highlighted the importance of providing individualized services and considering families' needs when providing family-centred service

Shojaei, Jafari & Gholami (2016) studied the Effect of Early Intervention on Language Development in Hearing-Impaired Children and then concluded Early identification/intervention of hearing loss before the age of 6 months has a significant positive effect on a child's language development in terms of picture/relational/oral vocabulary, grammatical comprehension, sentence combining, grammatical completion, phonologic analysis, word differentiation, word production, semantics, and syntax. Moreover, early identification/ intervention of hearing loss develops the hearing-impaired child's lingual gains in visual vocabulary, grammatical completion, word differentiation, phonologic analysis, and word production.

Vohr, Krauzyk, Tucker, Topol, Johnson, Ahlgren & Pierre (2011) determined Expressive vocabulary of children with hearing loss in the first 2 years of life: impact of early intervention and concluded although multiple factors are associated with expressive vocabulary growth of children with HL, enrolment in EI \leq 3 months has sustained beneficial effects on expressive vocabulary at 18 to 24 months.

Halpin, Smith, Widen & Chertoff (2010) investigated the Effects of Universal New born Hearing Screening on Early Intervention Program for Children with Hearing Loss, Birth to 3 Yr of Age and concluded UNHS had a positive impact on caseload size, age of diagnosis, age of in EI, and age of hearing aid fit. The percentage of the caseload identified in the newborn period was about 25% before UNHS and over 80% after its implementation. After UNHS, the EI caseload included as many children with mild and moderate hearing loss as with severe and profound loss. By the last reporting year in the study (academic year 2005–2006) all children with profound hearing losses had cochlear implants.

Ching & Leigh (2020) did a study Considering the impact of universal new born hearing screening and early intervention on language outcomes for children with congenital hearing loss and concluded that New born hearing screening led to earlier intervention. Children who received earlier intervention achieved better outcomes than those who received later intervention.

Kasai, Fukushima, Omori, Sugaya & Ojima (2012) investigated on Effects of Early Identification and Intervention on Language Development in Japanese Children with Prelingual Severe to Profound Hearing Impairment and concluded that Early intervention strongly influenced language development. It is necessary to ensure that early identification leads directly to early intervention.

Michlitsch, Azimi, Hoppe, Walters, Lubin, Lorey & Vichinsky (2008) investigated on Newborn screening for hemoglobinopathies in California and concluded that the California hemoglobinopathy screening program provides accurate diagnosis of hemoglobinopathies. Increasing incidence of diverse mutations require new strategies of laboratory screening, counselling, and patient management.

Thompson, McPhillips, Davis, Lieu, Homer & Helfand (2001) assessed Universal Newborn Hearing Screening and concluded that modern screening tests for hearing impairment can improve identification of new born with PHL, but the efficacy of UNHS to improve long-term language outcomes remains uncertain.

Arnold, Davis, Frempong, Humiston, Bocchini, Kennen & Puryear (2006) did the Assessment of New born Screening Parent Education Materials and concluded that Parent education materials about new born screening should be revised to be easier to read and more user-friendly, by lowering the reading difficulty to eighth-grade level and focusing on issues such as layout, illustrations, message, information, and cultural appropriateness. It is important that state new born screening programs and organizations work with parents to develop and to evaluate materials to ensure that they are user-friendly.

Govender & Khan (2017) determined the Knowledge and Cultural Beliefs of Mothers Regarding the Risk Factors of Infant Hearing Loss and Awareness of Audiology Services and concluded that cultural beliefs were associated with causes of hearing loss amongst infants. It is therefore essential that health care professionals' practice within a culturally appropriate model of care, and develop cultural competency to enable them to better understand their patients in terms of what they believe are the causes of hearing related conditions and to deliver appropriate services and awareness of the profession of audiology and audiology service provision among mothers is also a critical factor in facilitating the early identification and intervention for children with hearing loss in South Africa.

Zaitoun, Rawashdeh, Qudah, Mohammad, Nuseir & Tamimi (2021) determined the Knowledge and Practice of Hearing Screening and Hearing Loss Management among Ear, Nose, and Throat Physicians in Jordan and concluded that There is a strong need for professional intervention programs, providing the latest updates and standardizations in the field of audiology and paediatric rehabilitation for ENT physicians.

NEED OF THE STUDY:

Kattunayakantribes are indigenous population who lacks access to fundamental medical facilities. In order to enable the organisation of various programmes and schemes for the community's educational benefit, the present study will be able to provide a thorough perspective of the community's awareness status regarding the causes of hearing impairment.

III. METHOD

AIM OF THE STUDY:

The aim of the study was to analyse the awareness of new born hearing screening and rehabilitation in kattunayakan tribe.

- To gauge the kattunayakan tribe community's general level of knowledge of infant hearing loss.
- To determine the area of screening and rehabilitation procedure knowledge among the tribal community.
- To determine the part of the screening and rehabilitation process that the tribal community is least aware of.

The study was carried out in two phases

Phase 1: Developing questionnaire.

A set 27yes/no questions of which 1-14 comprises of awareness of new born hearing loss and 15-27 comprises of rehabilitation options available for infants with hearing impairment. The developed questionnaire was then translated to Malayalam by a professor who is teaching Malayalam in government 1st grade college in Calicut, after which the questionnaire was circulated among SLPS who are working in the field for more than 5 years, the suggestions and corrections which advised by the SLP's was incorporated and questionnaire was validated and ready to administer.(Appendix-1)

Phase 2: Participants

Twenty Kattunayakan tribe in the age range of 20-40 years who are presently staying within the tribal community and irrespective to male and female who are free from any psychological illness, hearing disorders, neurological issues and speech language disorders.

Stimulus used:

The prepared closed set of 27 questions was used for the collection of data.

Procedure:

The validated list of questions was administered on the selected tribal group. the questions were read to them and as per their response (yes/no) was marked.

Analysis:

The response from the tribal community was collected and further a score of '1' for the response 'yes' and '0' for the response 'no'. The accumulated data was further subjected to statistical analysis and the results are discussed below.

IV. RESULTS AND DISCUSSION

The aim of the present study was to analyse the knowledge of new born hearing loss, its cause evaluation and potential rehabilitation option available in Kattunayakantribal people and the result are obtained and disused below.

Table 4.1:
Showing the percentage of questionnaire on cause of hearing loss.

	CAUSES OF HEARING LOSS	PERCENTAGE OF AWARENESS
1.	Heredity	10%
2.	Premature birth	10%
3.	Maternal infections during pregnancy	5%
4.	NICU	5%
5.	Craniofacial abnormalities	0%
6.	Side effects of certain medications	5%
7.	Jaundice	20%
8.	Ear infection	35%
9.	Low birth weight	10%
10.	Side effects of medications	5%
11.	Meningitis	0%
12.	Measles	0%
13.	Head trauma	0%
14.	Hypoxia	0%

Fig 4.1

Showing the percentage values for question on awareness and cause of newborn hearing loss

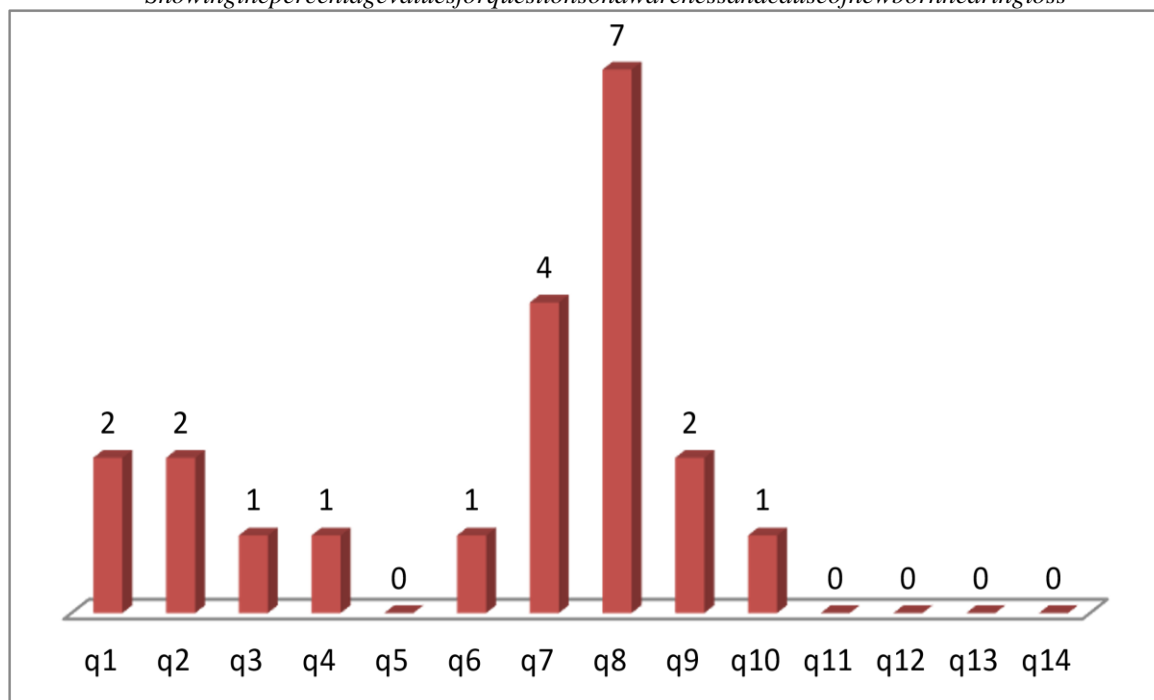


Table 4.1 and Fig 4.1 shows the percentage score for questions on awareness of hearing loss and causes, Question 1 was about heredity hearing loss and only 2 in 20 were aware of that(10%), Question 2 was about premature birth can lead to hearing loss and only 2 were aware(10%), Question 3 was about maternal infection during pregnancy can lead to hearing loss and only 1 was aware of that(5%), Question 4 was about children who are kept in NICU have a risk of hearing loss.1 were aware(5%), Question 5 was about craniofacial abnormalities may cause hearing loss no one was aware of this question(0%). Question 6 was about hearing loss cause by side effect of certain medication and only 1 was aware(5%), Question 7 was about the hearing loss caused by jaundice, 4 was aware(20%), Question 8 was about hearing loss caused by ear infection,7 was aware(35%), Question 9 was about hearing loss caused by low birth rate and 2 was aware(10%), Question 10 was about hearing loss caused by side effects of medications, 1 was aware(5%), question 11 was about hearing loss caused by meningitis and 20 were also unaware(0%), Question 12 was regarding hearing loss caused by measles and 20 were unaware(0%), Question 13 was regarding the hearing loss caused by head trauma and 20 was unaware(0%), Question 14 was about hearing loss caused hypoxia and 20 were unaware(0%). Statistically the awareness of kattunayaka tribe for questions on new born hearing loss was very low and for few questions there were not aware and was zero response as shown in the fig.

TABLE 4.2:

Showing the percentage of questionnaire on potential Rehabilitation for hearing loss

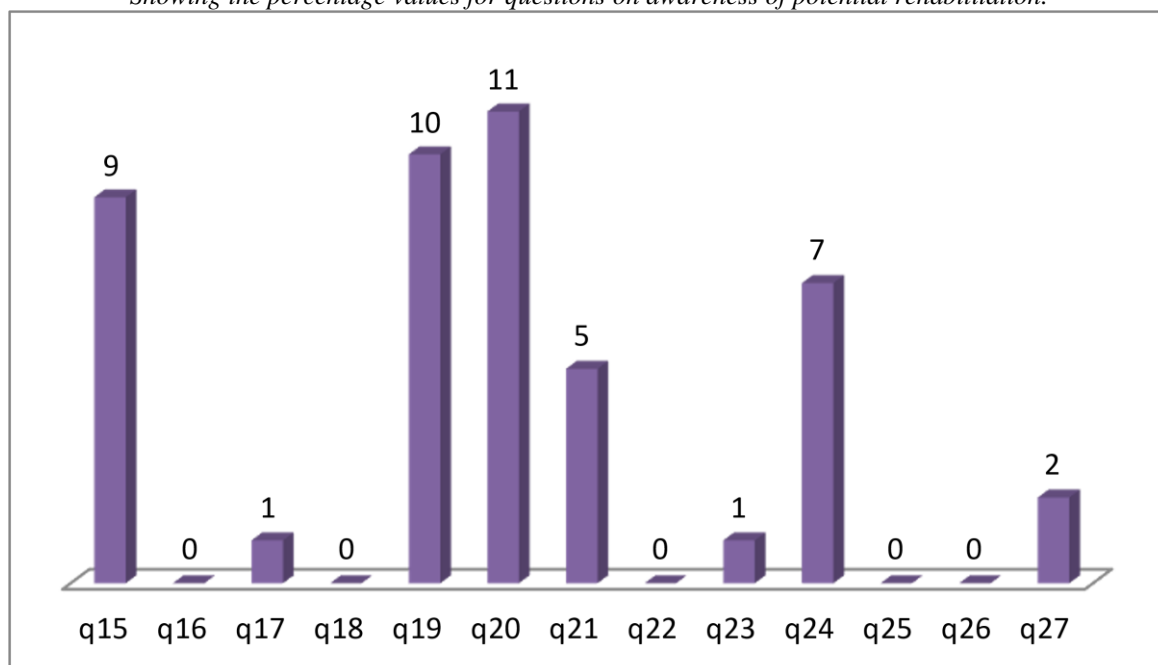
15.	Possibility of various rehabilitative measures	45%
16	Early hearing screening can be done within 48 hours	0%
17	Government hospitals are providing early screening	5%
18.	About the field of audiology	0%
19.	Suspects hearing loss if child show no response to loud sound	50%
20.	Hearing and communication are interrelated	55%
21.	Benefits of using hearing aids at an early age	25%
22.	About cochlear implantation	0%
23.	With hearing aid, a child can study in normal school	5%
24.	Hearing aid use at an early age helps in improving academic performance	35%
25.	Use of hearing aid,can improve the mental state of the person	0%
26.	Schemes provided by government for hearing impaired	0%
27.	Better social communication by sure if hearing aid at an early age	10%

From table 4.2 show the percentage score for questions on awareness of potential rehabilitation of hearing loss where question on hearing and communication are interrelated scored (55%),Suspects hearing loss if child show no response to loud sound (50%),possibility of various rehabilitation measures(45%), hearing aid

use at an early age helps in improving academic performance(35%),better social communication by sure if hearing aid at an early age(10%),government hospitals are providing early screening(5%),early hearing screening can be done within 48 hours, about the field of audiology, about cochlear implantation ,use of hearing aid , can improve the mental state of the person, schemes provided by government for hearing impaired(0%).

Fig:4.2

Showing the percentage values for questions on awareness of potential rehabilitation.



Question 15 was about the possibility of various rehabilitation measures and 9 was aware among 20(45%), Question 16 was about early hearing screening can done within 48 hours and 20 were unaware(0%) , Question 17 was regarding government hospital are providing early screening only 1 was aware(5%), Question 18 was about the field of audiology and 20 was unaware(0%), Question 19 was suspect hearing loss if child show no response to loud sound and 10 was aware that if child doesn't respond to loud sound they can suspect hearing loss(50%), Question 20 was about hearing and communication are interrelated and 11 was aware(55%) , Question 21 was about benefits of using hearing aid at an early age only 5 was aware(25%) , Question 22 was regarding the awareness about cochlea implant , 20 was also mot aware of it(0%), Question 23 was regarding ,with hearing aid a child can study in normal school only 1 gave positive response for that(5%), Question 24 was regarding the hearing aid use at early age help in improving academic performance in this question 7 was aware(35%) , Question 25 was about use of hearing aid can improve the mental state of the person and 20 was unaware of this(0%), Question 26 is about schemes provided by government for hearing impairment , 20 was also not aware of this(0%), Question 27 was regarding better social communication by sure if hearing aid at an early age for this just 2 gave positive response(10%).

Statistically the potential rehabilitation of kattunayaka tribe for questions on new born hearing loss was very low and for few questions there were not aware and was zero response as shown in the fig.

V. DISCUSSION

As can be seen from the results kattunayakan tribe people have very low awareness rates for both new born hearing loss and rehabilitation-related issues.

The overall findings were:

The awareness percentage of kattunayakantribal on newborn hearing loss and rehabilitative aspects was very low, awareness was slightly better on rehabilitative aspects when compared to the causes of hearing loss.

There was a lack of knowledge regarding the majority of the causes of hearing loss including craniofacial abnormalities, meningitis, measles, head trauma, hypoxia as well as the majority of the rehabilitative measures including early hearing screening, government hospitals that offer early screening, information about the field of audiology, the advantages of using hearing aids at a young age, cochlear implantation and various government programmes and policies for the hearing impaired.

Counselling was given about the awareness of new born hearing loss and rehabilitation after the administration of questionnaire among kattunayakantribe.

In tribal community, there was a critical need for programmes that raise awareness of the causes of hearing loss and provide rehabilitation.

VI. SUMMARY AND CONCLUSION

As the foundation for the healthy development of typical speech, language and hearing is a crucial factor. Unfortunately, deafness is an invisible impairment making it difficult to spot a deaf kid or adult without close observation. Children who had early screening and rehabilitation saw an improvement in their hearing in numerous contexts, as well as an improvement in their ability to communicate clearly and improve their relationships at home and at work.

The majority of wealthy nations now require early hearing detection and intervention prior to hospital discharge. It is estimated that 90 percent of the world's children with hearing impairment reside in nations with little resources, making the implementation of newborn hearing screening particularly difficult.

Investigating the tribal population of kattunayakan tribes' awareness of the causes of infant hearing loss and treatment was the aim of this study. A 27question & questionnaire was used to evaluate 20 kattunayakan tribe members in the Wayanad area. The results of the study revealed that the indigenous people scored quite poorly. Most hearing loss causes and different facets of recovery were absolutely unknown to them. Lack of funding, lack of knowledge and lack of supportive services are likely factors in the failure to detect hearing loss early. A society with a history of social deprivation like kattunayakan Tribes has to be made aware of a critical issue like hearing loss.

The following are a few options for dealing with this circumstance:

- Raising awareness of the causes of hearing loss, the value of early hearing screening the many rehabilitative alternatives, and the government assistance available to the hearing impaired among parents and community members.
- organising camps
- educating those who will provide basic hearing care in the community
- developing community-based primary hearing care professionals

It's crucial to support and guide families as they go through the screening process. The success of a screening programme can be influenced by providing information that is pertinent, reliable, and culturally appropriate. It is important to educate other parents, doctors, health professionals, policy makers, and other caregivers about hearing loss and the value of early rehabilitation in addition to the relatives of children who are receiving hearing screening.

Implications:

1. In this study, the degree to which the tribal society was aware of prenatal hearing loss and different facets of rehabilitation was examined.
2. The study found that the tribal population had very low awareness levels for most elements of prenatal hearing loss and rehabilitation, with rehabilitation receiving slightly better responses than causes of hearing loss.
3. It may be possible to improve these tribal tribes' understanding of the causes of infant hearing loss and many aspects of potential rehabilitation by holding awareness programmes and camps.

LIMITATIONS;

- The study only comprised a small number of participants.
- More tribal communities ought to have been considered for this study.

FUTURE DIRECTIONS:

- Comparisons between the outcomes of the pre- and post-awareness programmes are possible.
- Can do in many other tribal communities.

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APPENDIX

Dr.M.V.Shetty College of speech and hearing

Awareness of new born hearing loss and rehabilitation among kattunayakan tribal community

Name :

Age :

Gender :

1. If any of the close relatives has hearing disability, there is a possibility that the baby will also, have it?
(yes/no)
2. There is risk of hearing disability in prematurely born children?
(yes/no)
3. Any type of infection in mother during pregnancy can cause hearing disability? (yes/no)
4. If the baby is kept in any special care unit for more than 5 days after birth, there is a risk of hearing disability?
(yes/no)
5. Any kind of abnormality in the child's head, face, ears, neck etc. will affect the learning disability more?
(yes/no)
6. Can some medicines given to newborn babies cause hearing disability?
(yes/no)
7. Neonatal jaundice may cause hearing disability?
(yes/no)
8. Persistent ear pus in children can cause hearing disability?
(yes/no)
9. Babies with low birth weight (below 1500 grams) are more likely to have hearing loss?
(yes/no)
10. Certain medications taken by the mother during pregnancy may affect the baby's hearing?
(yes/no)
11. Encephalitis in babies can affect the organs that help hearing?
(yes/no)
12. Acham fever during pregnancy may affect the baby's hearing?
(yes/no)
13. Any type of physical trauma that may occur to the mother during pregnancy or to the baby after birth can affect the baby's hearing?
(yes/no)
14. Shortness of breath in new born can cause hearing disability?
(yes/no)
15. There are many ways to treat hearing loss?
(yes/no)
16. The initial hearing test can be done within 48 hours of the baby's birth?
(yes/no)
17. Preliminary hearing test is conducted in most government hospitals?
(yes/no)
18. There is a category called audiologist to conduct hearing test?
(yes/no)
19. If the baby does not respond to loud sounds, you should suspect hearing disability? (yes/no)
20. Listening and speaking skills are closely related?
(yes/no)
21. Using a hearing aid at an early age can help further recovery of speech?
(yes/no)
22. There is a procedure called cochlear implantation?
(yes/no)
23. With the help of a hearing aid, children with hearing loss can learn in regular schools?
(yes/no)
24. If children with hearing loss are treated early, they will make progress in educational matters?
(yes/no)
25. Early preventive measures in children with hearing loss can put them in a better mental health?
(yes/no)
26. The government is running some schemes and benefits for the hearing-impaired children?

(yes/no)

27. Through primary prevention measures, the social interactions and communication of hearing-impaired children will increase?

(yes/no)

APPENDIX

Dr.M.V.Shetty College of Speech &Hearing

Awareness of Newborn Hearing Loss & Rehabilitation among Paniya Tribal Community

പേര് :

വയസ്സ് :

സ്ത്രീ/പുരുഷൻ:

		ശരി	തെറ്റ്
1.	അടുത്ത ബന്ധുക്കളിൽ ആർക്കെങ്കിലും കേൾവിക്കുറവുണ്ടെങ്കിൽ ജനിക്കുന്ന കുഞ്ഞിനും അതുണ്ടാവാൻ സാധ്യതയുണ്ട്.	<input type="checkbox"/>	<input type="checkbox"/>
2.	വളർച്ചയെത്താതെ പ്രസവിക്കുന്ന കുട്ടികളിൽ കേൾവിക്കുറവിനുള്ള സാധ്യതയുണ്ട്.	<input type="checkbox"/>	<input type="checkbox"/>
3.	ഗർഭിണിയായിരിക്കുമ്പോൾ അമ്മയിൽ കാണപ്പെടുന്ന ഏതെങ്കിലും തരത്തിലുള്ള പകർച്ചവ്യാധി കേൾവിക്കുറവിന് കാരണമാവാം.	<input type="checkbox"/>	<input type="checkbox"/>
4.	പ്രസവത്തിനുശേഷം കുഞ്ഞിനെ ഏതെങ്കിലും തരത്തിലുള്ള പ്രത്യേക പരിചരണ വിഭാഗത്തിൽ 5 ദിവസത്തിൽ കൂടുതൽ കിടത്തിയാൽ അത് കേൾവിക്കുറവിനുള്ള സാധ്യതയാണ്.	<input type="checkbox"/>	<input type="checkbox"/>
5.	കുട്ടിയുടെ തല, മുഖം, ചെവി, കഴുത്ത് തുടങ്ങിയവയിൽ ഏതെങ്കിലും തരത്തിലുള്ള അസ്വാഭാവികത കേൾവിക്കുറവിനെ കൂടുതൽ ബാധിക്കും.	<input type="checkbox"/>	<input type="checkbox"/>
6.	നവജാത ശിശുക്കൾക്ക് കൊടുക്കുന്ന ചില മരുന്നുകൾ കേൾവിക്കുറവിന് കാരണമായേക്കാം?	<input type="checkbox"/>	<input type="checkbox"/>
7.	നവജാത ശിശുക്കളെ കാണപ്പെടുന്ന മഞ്ഞപ്പിത്തം കേൾവിക്കുറവിന് കാരണമായേക്കാം.	<input type="checkbox"/>	<input type="checkbox"/>
8.	കുട്ടികളിൽ തുടർച്ചയായി കാണുന്ന ചെവിയിലെ പഴുപ്പ് കേൾവിക്കുറവിന് കാരണമായേക്കാം.	<input type="checkbox"/>	<input type="checkbox"/>
9.	ജനിക്കുമ്പോൾ തൂക്കക്കുറവുള്ള (1500 ഗ്രാം താഴെ) കുഞ്ഞുങ്ങൾക്ക് കേൾവിക്കുറവുണ്ടാവാൻ സാധ്യതയുണ്ട്.	<input type="checkbox"/>	<input type="checkbox"/>
10.	ഗർഭിണിയായിരിക്കുമ്പോൾ അമ്മ കഴിക്കുന്ന ചില മരുന്നുകൾ കുഞ്ഞിന്റെ കേൾവിയിലെ ബാധിച്ചേക്കാം.	<input type="checkbox"/>	<input type="checkbox"/>
11.	കുഞ്ഞുങ്ങളിൽ ഉണ്ടാവുന്ന മസ്തിഷ്കജ്വരം, കേൾവിക്ക് സഹായകമായ അവയവങ്ങളെ ബാധിച്ചേക്കാം	<input type="checkbox"/>	<input type="checkbox"/>

12. ഗർഭാവസ്ഥയിൽ അമ്മയ്ക്ക് ഉണ്ടാവുന്ന അഞ്ചാം പനി കുഞ്ഞിന്റെ കേൾവിയെ ബാധിച്ചേക്കാം.
13. ഗർഭാവസ്ഥയിൽ അമ്മയ്ക്കോ, ജനിച്ചയുടൻ കുഞ്ഞിനോ ഉണ്ടായേക്കാവുന്ന ഏതെങ്കിലും തരത്തിലുള്ള ശാരീരിക ആഘാതം കുഞ്ഞിന്റെ കേൾവിയെ ബാധിച്ചേക്കാം.
14. നവജാത ശിശുക്കളിൽ കാണപ്പെടുന്ന ശ്വാസതടസ്സം കേൾവികുറവിന് കാരണമാവാം.
15. കേൾവികുറവിന് പല രീതിയിലുള്ള പ്രതിവിധികൾ സാധ്യമാണ്.
16. പ്രാഥമിക കേൾവി പരിശോധന കുഞ്ഞ് ജനിച്ച 48 മണിക്കൂറിനുള്ളിൽ തന്നെ നടത്താം.
17. പ്രാഥമിക കേൾവി പരിശോധന മിക്കസർക്കാർ ആശുപത്രികളിലും നടത്തി വരുന്നുണ്ട്.
18. കേൾവി പരിശോധന നടത്താൻ ഓഡിയോളജിസ്റ്റ് എന്നൊരു വിഭാഗം നിലവിലുണ്ട്.
19. ശിശു വലിയ ശബ്ദങ്ങളോട് പ്രതികരിക്കാതിരുന്നാൽ കേൾവി തകരാറുണ്ടോയെന്ന സംശയം നിങ്ങൾക്കുണ്ടാവണം.
20. ശ്രവണശേഷിയും സംസാരശേഷിയും പരസ്പരം ബന്ധപ്പെട്ടിരിക്കുന്നു.
21. ചെറിയ വയസ്സിൽ തന്നെ ശ്രവണ സഹായി ഉപയോഗിക്കുന്നത് സംസാരശേഷി കൂടുതൽ വീണ്ടെടുക്കുന്നതിന് സഹായകരമാവും.
22. കോക്ലിയർ ഇംപ്ലാന്റേഷൻ എന്നൊരു പ്രക്രിയ നിലവിലുണ്ട്.
23. ശ്രവണ സഹായിയുടെ സഹായത്തോടെ കേൾവിക്ക് തകരാറുള്ള കുഞ്ഞുങ്ങൾക്ക്, സാധാരണ വിദ്യാലയങ്ങളിൽ തന്നെ പഠിക്കാൻ കഴിയും.
24. കേൾവികുറവുള്ള കുഞ്ഞുങ്ങൾക്ക് നേരത്തെ തന്നെ അതിനുള്ള പ്രതിവിധികൾപ്പോലെയ്താൽ വിദ്യാഭ്യാസപരമായ കാര്യങ്ങളിൽ അവർക്ക് മുന്നേറ്റം ഉണ്ടാവും.
25. കേൾവികുറവുള്ള കുട്ടികളിൽ ആദ്യകാലത്തു തന്നെ നടത്തി വരുന്ന പ്രതിരോധ പ്രവർത്തനങ്ങൾ അവരെ മെച്ചപ്പെട്ട മാനസികാവസ്ഥയിൽ എത്തിക്കും.
26. കേൾവിത്തകരാറുള്ള കുഞ്ഞുൾക്ക് വേണ്ടി ഗവൺമെന്റ് ചില പദ്ധതികളും ആനുകൂല്യങ്ങളും നടത്തി വരുന്നുണ്ട്.
27. പ്രാഥമിക പ്രതിരോധ നടപടികളിലൂടെ കേൾവികുറവുള്ള കുട്ടികളുടെ സാമൂഹികമായ ഇടപെടലുകളും ആശയ വിനിമയവും വർദ്ധിക്കും.