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NEWBORN HEARING SCREENING IN TWIN CITIES OF PAKISTAN: PEDIATRICIAN'S PERSPECTIVE.

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Abstract:

Background: There is a high prevalence of hearing loss & need of knowledge of neonatal hearing screening by pediatricians. Keeping in view the auditory and speech outcomes and rehabilitation awareness is helpful to ensure early identification and rehabilitation of hearing impaired.

Aim: To determine pediatricians' knowledge, attitudes, and practices regarding newborn hearing screening in twin cities of Pakistan.

Material & Methods: The current cross-sectional survey was conducted at Riphah International University from August 2023 to January 2024. The study utilized a sample of N=79 pediatricians working in public and private sectors of Rawalpindi and Islamabad, Pakistan using convenience

sampling. A basic demographic sheet & Knowledge Attitude, and Practice questionnaire were used for data collection. Statistical analysis was done using SPSS Ver. 25.
Results: A total of 59.5% of Pediatricians reported a lack of universal newborn hearing screening programs in their hospitals but had positive views towards hearing screening. Regarding newborn hearing screening, the minimal knowledge score was determined to be 6%, attitude score was 4%, and the minimum practice score was 3%. Most respondents (45.6%) believed the importance of screening all newborns for hearing loss is highly subjective.

Keywords: Newborn hearing screening, Pediatricians, Permanent hearing loss, early hearing detection and intervention, screening.

Introduction

Hearing is one of the five senses that helps humans communicate. Auditory sense is critical for the child's speech, language, cognitive, and social-emotional development (1). The inability to process sound in one or both ears is known as hearing loss (HL). This is one of the most common disabilities and has lifelong consequences for affected children and their families mainly affecting an infant's speech and language development (2).

According to Center for Disease Control and Prevention, every year 2-3 out of 1000 children are born in the United States with permanent hearing loss placing their speech and language development at risk (3). Newborns may lose all or part of their hearing. In a few rare cases, infants may have some hearing loss at birth. In other cases, infants who have had normal hearing during birth can sometimes develop Hearing loss. The loss can be unilateral or bilateral. It may be mild, moderate, severe, or profound. Sometimes, hearing loss gets worse over time. This can lead to sensory deprivation with failure to develop communication skills, leading to learning difficulties (4).

Widely recognized risk factors for hearing loss in children include a family history of hearing impairment, prenatal infections, neonatal illnesses, persistent pulmonary hypertension (PPHN) linked to mechanical ventilation, and infections contracted after delivery, such as bacterial meningitis (5).

Newborn screening (NBS) is the first population-based public screening program for genetic disorders in the United States (6). Newborn hearing screening is the standard of care in hospitals nationwide. The primary purpose of newborn hearing screening is to identify newborns likely to have HL. The secondary objective is to identify newborns with medical conditions that can cause late-onset HL and to establish a plan for continued monitoring of their hearing status (7)

The Early hearing detection and intervention (EHDI) guidelines include hearing screening completion by 1 month, diagnosis of any hearing loss by 3 months of age, hearing aid selection and fitting within 1 month of confirmation of hearing loss if parents choose that option, and entry into early intervention (EI) services by 6 months of age. A screening test aims to identify infants at risk for hearing loss who need further testing. A screening test is not a diagnostic. Passing a screening does not mean that a child has normal hearing across the frequency range. Because minimal and frequency-specific hearing losses are not targeted by newborn hearing screening programs, newborns with these losses may pass a hearing screening because these losses have the potential to interfere with the speech, language, and psycho-educational development of children monitoring of hearing, speech, and language milestones throughout childhood is essential (8).

Universal neonatal hearing screening represents secondary prevention of hearing impairment/deafness. A screening test aims to identify children with congenital/early-acquired hearing impairment that will no doubt be improved with the implementation of universal neonatal hearing screening programs (9).

A maximum of 2 screening tests, each consisting of a maximum of 2 attempts. The hearing screening should be performed using Evoked Optoacoustic Emissions and Auditory Brainstem Response or a combination of both measures. The use of auditory brainstem responses (ABR) was first reported by Jewett (10). The conventional auditory brainstem evoked response (ABER) is the gold standard which is used for testing hearing (11).

The re-screening is a second hearing screening that can be performed if an infant does not pass the initial hearing screening in one or both ears. A re-screening should be performed before 1 month of age (12). The advocacy by pediatricians is imperative if early hearing detection and intervention (EHDI) programs are to be effective, efficient, and successful over the long term. Some pediatricians remain unfamiliar with the rationale for universal screening of all newborns before hospital discharge (13).

Keeping in view the high prevalence of HL, need of knowledge of NHS by pediatricians, gap in local literature and need of research to focus on auditory and speech outcomes and rehabilitation awareness (14), the present study aimed to determine the pediatricians' knowledge, attitudes, and practices regarding newborn hearing screening in twin cities of Rawalpindi and Islamabad, Pakistan. This will help determine the gaps in knowledge, attitudes and practices of pediatricians concerning newborn hearing screening in the twin cities and help bring awareness and for research purposes.

Materials & Methods

A cross-sectional survey was conducted to investigate the knowledge, attitudes, and practices (KAP) among pediatricians in Rawalpindi and Islamabad regarding newborn hearing screening. This survey was conducted at Riphah International University from August 01, 2023 to January 31, 2024. The study was conducted after obtained ethical approval of research from the Research Ethics Committee, Riphah International University vide Registration No. Riphah/RCRAHS-ISB/REC/BS-SLP-G/1005 dated 11th July 2023.

The study recruited N=79 pediatricians from various Public and Private Hospitals with Pediatrics departments, including Railways General Hospital, Riphah International Hospital, Pakistan Institute of Medical Sciences (PIMS), and Benazir Bhutto Hospital (BBH) using convenience sampling, after calculating a sample size of N=79.

The sample comprised pediatricians of both genders with at least one year of post-graduate work experience. Medical officers, house officers, and medical students were excluded from the study. The survey employed a questionnaire titled "Knowledge, Attitude, and Practices about Neonatal Hearing Screening among pediatricians" to collect data on demographic information, clinical backgrounds, and KAP-related questions, including one open-ended query(15).

Data analysis was conducted using IBM SPSS version 25, employing frequencies, percentages, means, and standard deviations to report findings. Additionally, Pearson tests and crosstabs were used to explore relationships between variables, and graphical representations such as bar charts and pie charts were utilized for data visualization.

Results

The current study comprised nearly equal gender distribution with 51.9% of males and 69.6% of participants associated with hospitals. Males (n=41) had a significantly higher Knowledge mean score (2.34±0.44) than females (n=38, 2.14±0.39), with a p-value of 0.032 (table 1). However there was no significant difference in Attitude mean scores (males: 2.83±0.77, females: 2.68±0.70, p=0.386) or PAP mean scores (males: 2.81±0.76, females: 2.78±0.69, p=0.844).

Across different practice settings, KAP mean scores were 2.26±0.44 (medical school and hospital), 2.20±0.40 (hospital), and 2.50±0.56 attitude and practice mean scores for gender (p>0.05). Also there was no significant (p>0.05) difference in KAP mean scores for practice settings. For experience level, study revealed the highest knowledge mean score for those having more experience ie., 2.41±0.32 for those having 21-30 years, however, the difference was not significant (p=0.054). Also, the attitude and practice scores for difference experience levels were not significant (p=0.05). For the practice settings, there was no significant (p>0.05) difference in knowledge mean scores. However, the attitude mean scores were highest for those residing in the city (2.89±0.65) with p=0.005, similarly, the practice scores were also highest for those practicing in the city (2.91±0.69) with p=0.006.

For the knowledge questions (table 2), study aimed to evaluate participants' level of familiarity and awareness regarding newborn and infant hearing screening. Questions 1,2,3,4 and 5 were targeted toward investigating the knowledge of the participants. The familiarity with newborn and infant hearing screening varied with 39.2% being familiar, and the mean familiarity score was 3.20±1.15, indicating the extent of variability in participants' familiarity levels. As regards hospital policies on universal newborn hearing screening (UNHS) , majority (59.5%) revealed no UNHS program with mean score of 1.92±0.63 suggests a moderate inclination towards program implementation and majoiryt were unaware (64.6%) of newborn hearing screening program. Opinions on the ideal time to educate families about newborn hearing screening and emphasize follow-up 45.6% opined that 1-8 weeks postnatal was ideal with a mean score was 1.96±0.74, indicating preferences with moderate variability. Majority (44.3%) of responses regarding training adequacy for infants with permanent hearing loss was negative mean score of 2.1±0.72, indicating varied perceptions with moderate variability.

Questions 6, 7, 8, and 9 targeted investigating the attitude of the participants and provided numerical responses. Opinions on screening all newborns for hearing loss was labelled Very important by 45.6% with mean. Mean score 3.5±1.55, indicating perceived importance with variability. Opinions on hearing screening causing excessive anxiety or concern was labelled negative by most (54.4%) Mean 2.1±0.65, reflecting moderate agreement with variability. Opinions on the cost-effectiveness of universal newborn hearing screening was labelled true by 65.8% with a Mean 2.4±0.81, indicating a generally positive perception with variability. Confidence in explaining newborn hearing screening results to parents was labelled Somewhat confident 41.8% with Mean 2.8±0.94, indicating moderate to high confidence with variability.

The survey further explored preferences and behaviors related to newborn hearing screening (table 2). Preference for newborn hearing screening services within 5km was agreed by 69.6 with mean 2.5±0.74, indicating a strong preference with moderate variability. Response to insisting on follow-up testing after an infant fails hearing screening was also labelled as yes by 74.7 with mean 2.6±0.56, indicating a strong inclination with low variability. Frequency of using the internet for medical information was labelled frequently by 53.2% with mean 3.1±1.07, indicating regular use.

The overall Knowledge, Attitude, and Practices (table 3) revealed a mean score is 11.2±2.13 for knowledge, 11.03±2.95 for Attitude and 8.3±2.16 for Practices

The correlation table displays the relationships between Knowledge, Attitude, and Practices. Specifically, the correlation between Knowledge and Attitude is represented as 0.630**, indicating a moderately strong positive correlation. This suggests that as participants' knowledge levels increase, their attitudes also tend to become more positive.

The correlation between Knowledge and Practices is shown as 0.547**, indicating a moderately strong positive correlation. This implies that individuals with higher knowledge levels are more likely to exhibit positive practices (table). Additionally, the correlation between Attitude and Practices is presented as 0.731**, demonstrating a strong positive correlation. This suggests that participants with more positive attitudes are likely to engage in positive practices. In summary, the correlation coefficients highlight significant positive associations between these variables.

As knowledge increases, attitudes and practices also show positive trends. Furthermore, a strong positive correlation between attitude and practices indicates that individuals with positive attitudes are inclined to adopt positive practices. These findings underscore the interconnectedness of knowledge, attitude, and practices within the context under consideration.

Question 13 was an open-ended question where the participants were asked to enlist why infants' early hearing screening is necessary.

The study delves into seven narratives, eight codes along with four sub-themes, and one theme related to early intervention and prevention in healthcare, emphasizing their crucial role in effective management as mentioned in Table 4.

Collectively, these themes advocate for proactive healthcare measures that prioritize early identification, intervention, and education for optimal health outcomes.

Discussion:

The primary objective of this research was to delve into the knowledge, attitudes, and practices of Pediatricians concerning neonatal hearing screening (NHS) in the twin cities of Pakistan, specifically Rawalpindi and Islamabad. The research findings highlight several variables that need to be considered while designing tools for neonatal hearing screening, as the perceptions and meanings associated with NHS are intricate, spanning individual, family, community, and cultural levels.

In previous research on the feasibility of NHS in the twin cities of Pakistan, several obstacles that might prevent the use of these screening factors were found. However, it was observed that these challenges weren't impossible given the range of options available at different healthcare delivery levels. With sufficient time, resources, incentive, and a research population, the study shows that developing a Knowledge, Attitude, and Practice (KAP) survey instrument was attainable.

Various screening models have been employed, ranging from basic targeting of high-risk infants to universal screening using Otoacoustic Emissions (OAE) and/or Automated Auditory Brainstem Response (AABR). The logistics of attaining efficient coverage and screening performance, as well as economic concerns, have an immense effect on the screening protocol selection. Due to the general lack of highly skilled staff, such as audiologists or other ear care specialists, limiting screening to these individuals may impede the widespread acceptance of infant hearing screening as an essential public health initiative.

In the context of this study, obtaining information on the Knowledge, Attitude, and Practice (KAP) of the community is essential for an ear health needs assessment. This assessment helps determine the potential acceptability of Universal Neonatal Hearing Screening (UNHS) and ensures its effectiveness. Health needs assessments provide insights into the needs and integrate the results into service delivery.

A Saudi Arabian study found that 50% of participants did not screen children for hearing loss, and 40% did not confirm cases in the past five years, indicating a lack of practical understanding of pediatric hearing impairment (16). The present study highlighted the varying levels of familiarity among participants and how these correlated with their comprehension, attitudes, and practices regarding NHS.

An initial research conducted in Nepal regarding nurses' perspectives and attitudes toward infant hearing screening found that most participants lacked awareness of the procedure, despite recognizing its significance. The study identified a noticeable gap in knowledge and implementation of newborn hearing screening in Nepal (17). In contrast to prior findings, the current research on pediatricians demonstrated varying degrees of familiarity, suggesting a moderate relationship between participants' knowledge, attitudes, and practices.

A study in a tertiary care center revealed gaps in pediatricians' knowledge and attitudes towards newborn hearing screening programs, particularly in managing infants who fail screening and determining eligibility for cochlear implants(18). In the present study, knowledge is moderately positively correlated with both attitude and practices.

A pilot study in Korea found that many nurses and caregivers working with elderly dementia patients lack knowledge about hearing loss, making it difficult to perform tasks like testing and inspecting assistive devices. However, clear clinical instructions led to positive attitudes (19). The present study revealed varying levels of familiarity with newborn and infant hearing screening among participants. The survey also revealed uncertainties about the adequacy of training for infants with permanent hearing loss.

A study in Russia assessed genetic investigation and NHS in 1292 Russian children with bilateral SNHL, focusing on the feasibility of combined hearing and genetic screening. Genetic, audiological, and NHS data of 1292 pediatric patients with bilateral SNHL born in 2008–2021 were analyzed. Children with confirmed genetic etiology passed NHS in 21% of cases(20). A recent study involving pediatricians indicates that there is variability among the participants in the study about three important factors: awareness, attitudes, and practices about screening newborns for hearing.

In 2016, Bavaria achieved 98.7% coverage for comprehensive hearing screening for newborns, with a low rejection rate (0.12%). Booster interventions addressed inpatient and outpatient admission rates,

resulting in 21.2% referral rates. Bilateral hearing problems were diagnosed at 5.3 months with a low incidence (0.11%) (21). The results of the present study suggest that there is a moderate relationship between knowledge, attitudes, and practices among newborn hearing screening participants.

A study in Mauritius revealed insufficient knowledge among Mauritian doctors about hearing loss, including early detection, care, and assessment. However, positive attitudes emerged, emphasizing its importance in daily life, speech development, newborn screening, and parental consideration (22). The present study found that 39% of participants were aware of newborn hearing screening and 16.5% confirmed hearing screening tests were performed at their hospital.

A study was carried out at a tertiary hospital in India involving nurses and their awareness of the NHS. The study found that only 41.5% of the nurses were familiar with the NHS, while a higher percentage (90%) believed that the NHS is important. Additionally, the majority of nurses (74.76%) expressed unawareness of the contributions of nurses to the NHS and its follow-up services (23). In a present study, it was concluded that the 64.6% of pediatricians stated they were not aware of NHS.

The study is a randomized controlled trial, compared three automated hearing screening methods to determine their impact on follow-up rates for high-risk individuals. The FFS method resulted in a higher percentage of follow-up (24.6%) compared to the control group (16.8%). However, failures in screenings led to higher follow-up rates. Veterans had higher follow-up rates(24). Conversely, the current study's findings point to a moderate correlation between practices, attitudes, and knowledge.

A survey of 335 Jordanian physicians revealed that only 1.9% would recommend a speech therapist for a child with verified hearing loss, and 11.5% would recommend an audiologist. 69.0% had no training in dealing with deaf children and felt comfortable discussing treatment with parents(25). while in a present study, it was concluded that 64.6% of pediatricians stated they were not aware of NHS.

A pilot study analyzed 47 countries hearing screening programs, revealing high human development index and health expenditure in countries with dual protocols and three screening steps, and low health expenditure in those without NHS and using OAE for all infants(26). A present study on pediatricians reveals variability in awareness, attitudes, and practices regarding newborn hearing screening among participants.

A survey in Shanghai, China, surveyed 1022 general practitioners about their knowledge, attitudes, and practice towards age-related hearing loss screening. The results showed that 24.3% achieved a complete knowledge score, while 5.48% received zero. The survey also revealed that higher knowledge and favorable attitudes led to higher compliance in practice(27).In the present study, statistical analysis reveals varying levels of participant understanding, attitudes, and behaviors concerning the subject, demonstrating significant variability across all three measures.

The study found that parents in the region have limited knowledge about childhood hearing loss and its risk factors, highlighting a need for health promotional activities and community awareness campaigns to improve parental engagement and increase the uptake of pediatric audiology services(28). The present study, reveals that as knowledge increases, attitudes and practices also show positive trends, with a strong positive correlation between positive attitudes and practices.

The study reveals variability in early identification protocols for hearing impairment in high-risk newborns and infants, with most participants using objective measures. Age-related referrals vary, and 98% of participants believe they form part of a multidisciplinary team(29). The present study's mean awareness score is moderate with minimal variability (SD=0.59).

A cross-sectional study in Saudi Arabia found that moderate, poor, and good knowledge levels were prevalent among adults, with positive attitudes and negative attitudes among 92.6% and 7.4%, respectively. Age and knowledge were linked to higher educational attainment(30). The study found a moderately strong positive correlation between knowledge and practices, indicating that individuals with higher knowledge levels are more likely to exhibit positive practices.

Conclusion

The study goal was to evaluate the Pediatricians' knowledge, attitudes, and practices about neonatal hearing screening. The study concluded according to the results that the majority of the Pediatricians

had a positive attitude on infant hearing screening and their knowledge regarding neonatal hearing screening was insufficient. We found good practices by maximum pediatricians. Thus, there is a need to address these knowledge gaps. Physicians play a crucial role in conducting hearing screenings and identifying and addressing hearing loss early on. Additionally, the study underscores the necessity for more continuing medical education programs and awareness campaigns to strengthen the implementation of UNHS.

Limitations: The study sample was collected from two cities only, hence results cannot be generalized.

Ethical Considerations:
Ethical issues including informed consent, plagiarism, misconduct etc. have been completely observed by the authors.

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Table 1: Sociodemographic Factors versus Mean KAP Mean Score. Cross Tabulation

Variable	Tool/subtool Mean	Group	N	Mean	SD	P-value
Gender	**Knowledge**	**Male**	**41**	**2.34**	**0.44**	**0.032**
		Female	**38**	**2.14**	**0.39**	
	Attitude	**Male**	**41**	**2.83**	**0.77**	**0.386**
		Female	**38**	**2.68**	**0.70**	
	Practice	**Male**	**41**	**2.81**	**0.76**	**0.844**
		Female	**38**	**2.78**	**0.69**	
Practice setting	**Knowledge**	**Medical school and hospital**	**16**	**2.26**	**0.44**	**0.176**
		Hospital	**55**	**2.20**	**0.40**	
		Private Pratice	**8**	**2.50**	**0.56**	
		Total	**79**	**2.24**	**0.43**	
	Attitude	**Medical school and hospital**	**16**	**2.69**	**0.76**	**0.795**
		Hospital	**55**	**2.76**	**0.71**	
		Private Pratice	**8**	**2.91**	**0.93**	
		Total	**79**	**2.76**	**0.74**	
	Practice	**Medical school and hospital**	**16**	**2.67**	**0.84**	**0.63**
		Hospital	**55**	**2.81**	**0.70**	
		Private Pratice	**8**	**2.96**	**0.70**	
		Total	**79**	**2.80**	**0.72**	
Experience	**Knowledge**	**0 to 10**	**42**	**2.14**	**0.41**	**0.054**
		11 to 20	**22**	**2.33**	**0.48**	
		21 to 30	**15**	**2.41**	**0.32**	
		Total	**79**	**2.24**	**0.43**	
	Attitude	**0 to 10**	**42**	**2.68**	**0.66**	**0.321**
		11 to 20	**22**	**2.73**	**0.93**	
		21 to 30	**15**	**3.02**	**0.61**	
		Total	**79**	**2.76**	**0.74**	
	Practice	**0 to 10**	**42**	**2.85**	**0.64**	**0.323**
		11 to 20	**22**	**2.61**	**0.89**	
		21 to 30	**15**	**2.93**	**0.66**	
		Total	**79**	**2.80**	**0.72**	
Practice Location	**Knowledge**	**Small town**	**7**	**2.00**	**0.43**	**0.271**
		City	**54**	**2.28**	**0.40**	
		Metropolitan	**18**	**2.23**	**0.49**	
		Total	**79**	**2.24**	**0.43**	
	Attitude	**Small town**	**7**	**1.96**	**1.00**	**0.005**
		City	**54**	**2.89**	**0.65**	
		Metropolitan	**18**	**2.67**	**0.71**	
		Total	**79**	**2.76**	**0.74**	
	Practice	**Small town**	**7**	**2.00**	**0.75**	**0.006**
		City	**54**	**2.91**	**0.69**	
		Metropolitan	**18**	**2.76**	**0.63**	
		Total	**79**	**2.80**	**0.72**	

Table 2: Descriptive Frequencies/percentage, and mean of responses by the study Participants for knowledge questions (n=79)

Questions	n(%age)	Mean± SD
1) How familiar are you with newborn and infant hearing screening?		
• Not Familiar	7(8.9)	
• Somewhat not Familiar	12(15.2)	
• Familiar	31(39.2)	3.20±1.15
• Somewhat Familiar	16(20.3)	
• Very familiar	13(16.5)	
2) Does your hospital have a universal newborn hearing screening program?		
• Unsure	19(24.1)	
• No	47(59.5)	
• Yes	13(16.5)	1.92±0.63
3) Are you aware of the Newborn Hearing Screening program?		
• Unsure	16(20.3)	
• No	51(64.6)	1.94±0.59
• Yes	12(15.2)	
4) In your opinion, what would be an ideal time to teach families about newborn hearing screening and remind them about the importance of follow-up?		
• Prenatal		
• 1-8 weeks postnatal	23(29.1)	
• Both pre and postnatal	36(45.6)	
	20(25.3)	1.96±0.74
5) Did your training prepare you adequately to meet the needs of infants with permanent hearing loss?		
• Unsure		
• No	15(19.0)	
• Yes	35(44.3)	2.1±0.72
	29(36.7)	
6) How important do you think it is to screen all newborns for HL?		
• Unsure	11(13.9)	
• Very unimportant	16(20.3)	
• Somewhat unimportant	03(3.8)	
• Somewhat important	13(16.5)	3.5±1.55
• Very Important	36(45.6)	
7) Do you think hearing screening causes parents excessive anxiety and or concern?		
• Unsure		
• No	11(13.9)	
• Yes	43(54.4)	2.1±0.65
	25(31.6)	
8) Do you believe that universal newborn hearing screening is worth it cost?		
• Unsure	16(20.3)	
• No	11(13.9)	2.4±0.81
• Yes	52(65.8)	
9) How confident are you could be explaining the newborn hearing screening process to parents who have questions about their infant's results?		
• Unsure		
• Not confident	9(11.4)	
• Somewhat confident	17(21.5)	
• Very confident	33(41.8)	
	20(25.3)	2.8±0.94

10) If hearing screening services are available close by (within 5km), would you prefer for newborn hearing screening?		
• Unsure	12(15.2)	
• No	12(15.2)	
• Yes	55(69.6)	2.5±0.74
11) If an infant fails the hearing screening, would you insist on follow-up testing?		
• Unsure	04(5.1)	
• No	16(20.3)	
• Yes	59(74.7)	2.6±0.56
12) How frequently do you use the internet to access information about medical topics?		
• Never	10(12.7)	
• Rarely	10(12.7)	
• Sometimes	17(21.5)	3.1±1.07
• Frequently	42(53.2)	

Table 3 : Correlation of knowledge, attitude, and practices

Variable (Mean±SD)	Knowledge	Attitude	Practices
Knowledge (11.2±2.13)	1	.630**	.547
Attitude (11.03±2.95)	.630**	1	.731**
Practices (8.3±2.16)	.547**	.731**	1

**Correlation is significant at the 0.01 level (2-tailed).

Table 4: Enlist why infants' early hearing screening is necessary?

Sr. no	Narratives	Codes	Sub Themes	Theme
1.	It is necessary at an early age.	Early Intervention and Prevention	Early intervention, prevention, and management	A Holistic Approach to Early Childhood Development
	To reassure the problem as early as possible.	Disease Prevention and Management		
2.		Screening for New-borns		
3.	Many congenital disorders can be picked only in the early neonatal period	Congenital Disorders and Neonatal Period	Disorders Related to pre and postnatal	
	Need screening in fetal life for rubella.			
4.		Specific Conditions and Disorders		
5.	The earlier you detect the hearing loss, the better the outcome will be concerning speech development and learning abilities.	Speech Development and Learning Abilities	Speech Development & Learning Abilities	
6.	It is very important to counsel parents for newborn hearing screening test	Importance of Counselling and Awareness	Parental reassurance and awareness	
7.	It puts ease for both parent and newborn	Parental Ease and Awareness		