Introduction

According to the World Health Organization (WHO), approximately 7.5 million children in the world have a disabling hearing loss. In the absence of timely intervention, these children may experience lifelong difficulties in speech and language, as well as potential educational implications in educational and vocational achievements. The implementation of Universal Newborn Hearing Screening has enabled early identification of infants with congenital hearing loss. However, follow-up of infants who have failed the initial screening; or those who may have passed, but have a risk factor for developing delayed-onset hearing loss, is critical for timely intervention. The Joint Committee on Infant Hearing (JCIH) recommends a follow-up rate of more than 95% of infants, but a 70% benchmark has been reported as more feasible. Therefore, a major challenge reported by healthcare providers is the high loss to follow-up rate. A systematic review by Ravi et al. (2018) identified educational disparity and lack of adequate knowledge among parents were associated with loss to follow-up. Cunningham et al. (2018) also found that low-income, rural, and minority infants are at a higher risk for loss to follow-up. This project seeks to determine if providing parents with more accessible information during appointments can help to increase follow-up rates.

Methods

Participants: 22 parents/guardians of children with follow-up appointments at Denver Health due to failed newborn hearing screenings.

Procedures: Upon arrival at the Denver Health Audiology clinic for follow-up newborn hearing screening appointments, parents were asked if they would be willing to complete a questionnaire prior to the appointment that asks five questions involving knowledge of hearing loss, speech and language development, and if they understand the reason for the follow-up visit. After testing was completed for the baby, results of the hearing screening were reviewed with the parents, as well as the need for any further testing or follow-up. Parents were given an educational handout that included the results of the test, information on the purpose of the hearing screening and follow-up, and speech and language milestones. The parents were then asked to review the handout and fill out the “after visit” questionnaire. This questionnaire included the same five questions and two additional questions asking if the handout was helpful and easy to understand. Both the questionnaire and information sheet were available in English and Spanish. Results of the questionnaires were compared before and after the visit to determine if educational information was retained during the appointment.

Results

The before and after visit questionnaires responses were compared in three areas, and the after visit questionnaire was used to determine how many parents found the information sheet helpful and easy to understand.

1. The first comparison was between the parents’ knowledge of their baby having a risk factor for hearing loss prior to the appointment and after the appointment. Thirteen parents responded “I don’t know” or responded incorrectly prior to the appointment, and all thirteen parents answered correctly after the appointment. Nine parents answered correctly both prior to and after the appointment. No parents answered incorrectly following the appointment.

2. The second comparison combined questions 2-4 on the questionnaire as knowledge of speech and language milestones prior to and after the appointment. Sixteen, or 73%, of parents improved knowledge of milestones after the appointment and being given the informational sheet, six or 27%, of parents had no change in knowledge, and no parents did worse on the milestone questions following the appointment.

3. Only one parent responded that they did not understand why the appointment was important prior to the appointment. They responded “yes” to this question following the appointment.

4. All 22 parents responded “yes” to the information sheet being helpful and easy to understand.

Discussion

Preliminary findings suggest that written information and educational materials given out during appointments increases knowledge and understanding of results and importance of appointments. Results may have been affected by the fact that the parents who came to the appointments, came because they knew it was important. Those that no-show for the appointments may do so because they do not understand the importance of the appointment or why it was scheduled. This is a possible reason for only one parent responding that they did not understand the importance of the appointment prior. It should be noted that this project only encompassed a narrow scope of patients and goals of future directions are to expand educational materials to the nursery to reduce no-show rates for follow-up appointments.

Future Directions

1. Modify the the questionnaire sheet to better encompass parents’ understanding of results of their baby’s initial newborn hearing screening.

2. Implement the information sheet into the nursery at the initial newborn hearing screening.

3. Translate the information sheet and questionnaire into more languages to make information accessible to more families.

References


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