



Development and Implementation of an Online Curriculum on Caring for Deaf and Hard of Hearing Children in the Medical Home: A Pilot Study

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Background

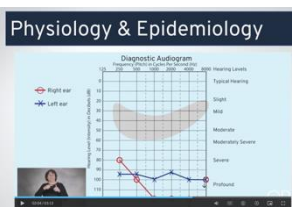
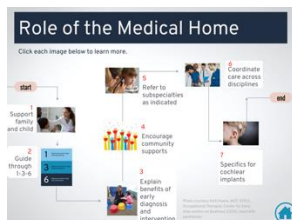
- 1 to 2 out of every 1,000 children in the United States are born deaf or hard of hearing (DHH)¹.
- Universal Newborn Hearing Screening has led to advances in the early diagnosis of hearing loss, but many DHH still experience suboptimal development.
- Parents of DHH children report turning to Primary Care Providers (PCPs) for guidance yet PCPs report feeling ill-equipped to care for DHH children.
- To address this, we developed and piloted an online educational module using the OPENPediatrics peer-reviewed medical education platform.

Objective

Develop, pilot, and assess the efficacy of an online interactive educational module on caring for deaf and hard of hearing (DHH) children in the medical home.

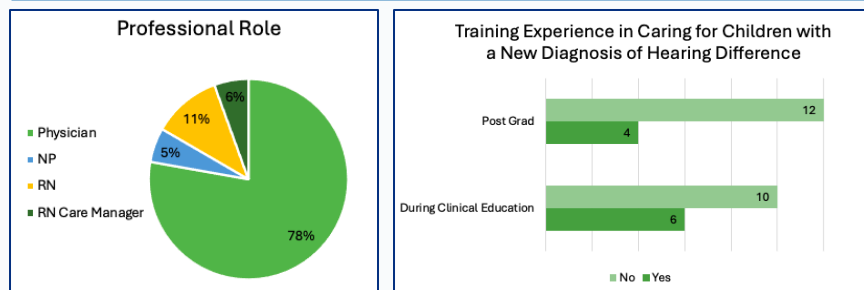
Methods

- The interactive module was developed by pediatricians, psychologists, speech-language pathologists, audiologists, otolaryngologists, and self and family advocates².
- The module was piloted using a pretest-posttest design to describe participants' baseline knowledge and evaluate the module's efficacy as an educational intervention.



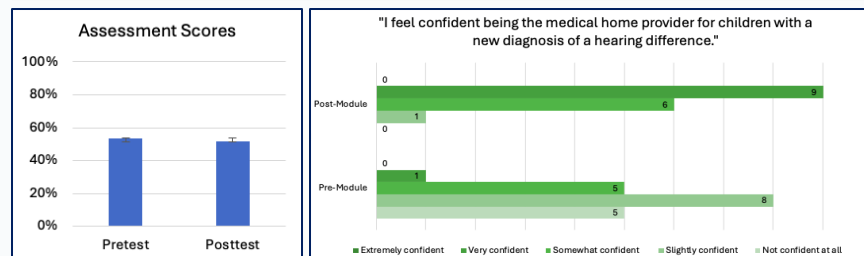
Results

Participants had various professional roles and levels of exposure to the care of DHH children and families.



Of the 31 participants enrolled in the study, 45% (n=14) completed the module and surveys in their entirety. Our sample of providers included 78% physicians. 62% of providers received no training in caring for children who are DHH during their graduate medical education, while 75% lacked training in this topic during post-graduate years.

The module did not improve assessment scores, but significantly improved confidence in several domains.



Pre- and Post-Module assessment scores did not differ significantly ($53\% \pm 16\%$ and $52\% \pm 12\%$, respectively).

Completion of the module resulted in up to an 8-fold increase in the number of participants who felt "Very Confident" across several domains of care, including being the medical home provider for DHH children, counseling families on language development, and understanding Deafness as a cultural identity.

Conclusions

- This pilot study revealed that providers have low rates of prior training experience and baseline knowledge on caring for DHH children, highlighting the need for more education.
- Participants also reported significantly increased confidence in caring for DHH children.
- Low pre- and post-module assessment scores suggest further refinement and validation of our content-based questions is required.

Future Directions

- Further evaluation of this module in the clinical training may support its efficacy in clinical training, with the hope that improving provider knowledge will improve the care of DHH patients and families.
- Re-writing of assessment questions may improve the validity of pre-and post-module evaluation

References

- CDC Early Hearing Detection and Intervention (EHDI) (2023, September 20). 2020 Summary of National CDC EHDI Data. CDC.go. Retrieved August 16, 2024, from <https://www.cdc.gov/ncbddd/hearingloss/2020-data/01-data-summary.html>
- Spellun A, Stone S, Fleming J, Marckley S, Wills K, Stewart J. Caring for Deaf and Hard of Hearing Children: An Overview for the Medical Home. 05/2024. Online Module. OPENPediatrics. <https://learn.openpediatrics.org/learn/course/internal/view/elearning/5625/caring-for-deaf-and-hard-of-hearing-children-an-overview-for-the-medical-home>

Check out the education module here!

