

EDUCATION IN NEURODEVELOPMENTAL DISABILITIES

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I. Introduction: Importance of New Resources

Approximately 90% of children with hearing loss are born to parents with Currently, 25 custom-made videos related to hearing, hearing loss, hearing aid use, and communication have been created with consideration of individual learning style, language fluency, cognition, and level of hearing and vision. An additional 23 topics have been identified to better serve pediatric patients and families. All resources will be hosted on the main project's website, Access Audiology (<u>www.access-audiology.com</u>), for free and unrestricted use. Below is a list of the primary topics identified for parents and family members attending audiology visits. The resources currently available, at the time of completing this poster, are listed in bold, additional resources listed are in the process of being created. **Diagnostic Audiology** Understanding Appointments Hearing Technology VRA evaluation • HA listening check General pediatric visit • Natural sleep ABR visit • CI listening check CPA evaluation Baha listening check Tympanometry Device programming This project aims to create family-centered resources to facilitate learning Troubleshooting Hearing loss simulations • **DPOAE** results and provide more efficient counseling for those caring for children with ABR evaluation hearing loss. Figure 2: Snapshots of project website landing page (left) and page with videos created for parents (right). AVDIOLOGY AUDIOLOGY Home Patients Parents Professionals Resources About Us En Español, ts Parents Professionals Resources About Us En Espa Pediatric Hearing Evaluations Hearing Check for Children Getting Ready for your Appointment Figure 4: Snapshot of video explaining Figure 3: Snapshot of video explaining Figure 5: Snapshot of video explaining Visual Reinforcement Audiometry (VRA) tympanometric evaluation (top) and a process of obtaining DPOAE responses evaluation (top) and corresponding corresponding parent informational (top) and a corresponding parent parent informational handout (bottom) informational handout (bottom) handout (bottom). Flesch-Kincaid scale of reading Subjective evaluation (easy t understand) -Reviewed by CA-LEND Family olunteered to play roles valuation Recorded using personal video In VRA, your child will sit in the center of the room and listen for sour ind put a small amount of air in the ear canal ealthy hearing organs tend to send strong echoes back Audio recorded on iPhone app Voice Memos Behavioral Testing **Parent Oriented Handout** Informational handouts created by University of Iowa AuD BEHAVIORAL **TYMPANOMETRY** OTOACOUSTIC TESTING EMISSIONS Tympanometry measures how the eardrum moves. Learn more about one of the tests your baby or child might receive at the audiologist. When your baby is old enough, they can show us what they hear. The health of part of the ear o earn more about one of the tests be tested by otoacoustic emissio your baby or child might receive (OAE). Learn more about one the tests your baby or child migh at the audiologist. DOWNLOAD receive at the audiologist. DOWNLOAD DOWNLOAD

normal hearing. This fact implies that for most parents, this is their first time thinking about what it means to have hearing loss or use hearing assistive technology. Typically, identifying hearing loss and determining appropriate intervention requires multiple clinical visits where parents are inundated with new information and unfamiliar terms. At each appointment, clinicians are navigating time constraints and varying levels of health literacy in efforts to describe the child's level of hearing, identify reasons for hearing loss, discuss opportunities for intervention, and predict outcomes and expectations. At the end of the visit, parents are given a brief moment to ask questions then sent home until their follow-up visit. **II. Methods: Creating Visual Resources** Figure 1: Flowchart highlighting the steps of creating visual resources. Steps occur in rainbow (ROYGBV) order and generally flow from the top of the chart towards the bottom. Steps yet to be completed are indicated by dashed outlines.



Virtual Resources Created to Enhance Family-Centered Care for Families Navigating Childhood Hearing Loss and Hearing Technology

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III. Results: Completed Visual Resources





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Website for project and resources: <u>www.access-audiology.com</u>

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IV. Discussion: On-going and Future Work

Overall, this project will improve parents' education of clinical audiology topics by providing independent access to content catered to learning style and literacy levels. However, there are still several limitations with the work including: diversity among complex patient population, rapid changes in hearing technology, individual's level of comfort with computers, remaining reliance on some English fluency, and project time constraints.

- Collaborations with CA-LEND Family Support faculty and scholars
- Collecting feedback from patients and providers
- Additional content (e.g. ear impression process, rechargeable, etc)

- Additional collaborations to provide multi-lingual resources
- Routine upkeep as feedback is collected and hearing technology changes

Acknowledgements

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Ongoing work on this project includes:

Future work on this project includes:



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