September 2023

NeuroAudiology Newsletter

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Recent Publication of Interest!

Editor of this newsletter: Alyssa Davidson, AuD, PhD, along with the National Military Audiology and Speech Center team at Walter Reed National Military Medical Center recently had an important manuscript accepted for publication in Trends in Hearing.

Title: Rapid Assessment of Subjective Hearing Complaints with a Modified Version of the Tinnitus and Hearing Survey

Authors: Alyssa Davidson, Greg Ellis, LaGuinn Sherlock, Jaclyn Schurman, and Doug Brungart

This article provides normative values for the Hearing subscore of the Tinnitus and Hearing Survey (THS). 15,392 participants with normal hearing completed the questionnaire in order to develop a cutoff score for what is considered clinically significant auditory problems. The THS-H can now be used as a validated tool for identifying patients with normal hearing who present with subjective hearing difficulty and determine who warrants further audiological evaluation and management for auditory processing dysfunction. Stay tuned for more updates on this publication release!

AUDIOLOGY TRIVIA

ANSWERS ON LAST PAGE

1) Who invented the "Dry & Store"?
a) Brian Taylor, b) Daniel Schumaier, c) Wayne Staab, d) E.G. West

2) Which of the following is NOT located in the internal auditory canal?
a) Facial nerve, b) Auditory nerve, c) Trigeminal nerve, d) Vestibular nerve

3) What university was Ira Hirsh associated with for most of his career?
a) U of Virginia, b) U of Iowa, c) Washington U, d) Stanford University

Invited Talk: APD Group

Dr. Frank Musiek will be giving an invited lecture on NeuroAudiology Applications for the ABR and MLD on September 7th.
Those interested in webinars hosted by this group can go to https://www.youtube.com/@APDmaster/videos

NeuroAudiology/CAPD Corner

It is back to school time for your pediatric patients, which makes it a great time to highlight the following areas: dichotic listening in children and listening-related fatigue.

Topic: Dichotic Listening and Reading

A recent study looked at two areas of dichotic listening: binaural integration and binaural separation in non-impaired readers and impaired readers (Reynard et al. 2023). Dichotic listening is the high-level auditory process which enables the perception of different verbal stimuli delivered simultaneously to the right and left ears (binaural integration), as well as the perception of a verbal stimulus presented to one ear while ignoring a different stimulus in the other ear (binaural separation). Deficits in central auditory processing have been reported in children with learning disabilities. This study aimed to compare dichotic listening performances in right-handed impaired readers (IR) and non-impaired readers (non-IR) according to age.

The results of the study indicated that binaural separation scores were lower in IR who also showed more intrusive responses (i.e., the number of stimuli presented to the LE that were repeated by the participant while being asked to focus on the RE) compared to non-IR. These intrusive responses, which were more frequent on the right ear for IR, decreased with age in both groups. Overall, these results suggest that dichotic listening scores improve with age as the central auditory pathways mature. However, whatever the age, performances are lower in IR than in non-IR. This might be explained by an incomplete maturation of the auditory pathways in IR; an early start for long-term follow-up and auditory training is suggested.

CAPD Corner Suggested Reading

Reynard P, Joly CA, Damien M, Le Normand MT, Veuillet E, Thai-Van H. Age-Related Dichotic Listening Skills in Impaired and Non-Impaired Readers: A Comparative Study. J Clin Med. 2023 Jan 14;12(2):666. doi: 10.3390/jcm12020666. PMID: 36675595; PMCID: PMC9865678.

Listening-Related Fatigue

A helpful resource to supplement your practice has been researched and developed at Vanderbilt University Medical Center. This resources provide a consistent method to collect information on potential listening-related fatigue from the perspective of the pediatric patient, parent, and teacher. The information obtained from this scale is a scoreable and can be utilized to document any changes in listening related-fatigue for pre and post hearing amplification fitting and hearing assistance technology fitting from the point of view of the patient, family, and teacher.

Find the Vanderbilt Listening-Related Fatigue Scale for Pediatric, Adult, Teacher and additional resources:
https://www.vumc.org/vfs/vanderbilt-fatigue-scales
https://www.vumc.org/vfs/resources

Davis, H., Schlundt, D., Bonnet, K., Camarata, S., Hornsby, B., Bess, F.H. (2021). Listening-Related Fatigue in Children with Hearing Loss: Perspectives of Children, Parents, and School Professionals. American Journal of Audiology. 30(4), 929-940. DOI: 10.1044/2021_AJA-20-00216

AUDIOLOGY TRIVIA ANSWERS

1) (B) Daniel Schumaier invented the "Dry & Store".
2) The (C) Trigeminal nerve is not located in the internal auditory canal.
3) Ira Hirsh was associated with (C) Washington University of most of his career.