Transcript

Welcome to Science Meets the Sound Booth, sponsored by the AAA Foundation, where hearing meets understanding. We're your hosts, Emily Venskytis and Sarah McAlexander, and in this podcast, we'll explore evidence-based clinical care and audiology. Science Meets the Sound Booth aims to translate research into real-world application. We're finally stepping out of the booth, metaphorically at least, to support informed decision-making and better patient outcomes. Whether you're an audiology professional, a student, or you've spent so many hours wearing that monitor headset that you've forgotten what daylight looks like, you're in the right place. Today, we're joined by Brianna Kuzbyt, AUD, and Adrien Eshraghi, MD. Brianna Kuzbyt, AuD, is an assistant professor of otolaryngology, clinical audiologist, and clinician researcher in the Division of Audiology at the University of Miami Miller School of Medicine, where she specializes in tinnitus management, vestibular and auditory diagnostic testing, auditory evoked potentials, and bone-anchored hearing implants. She holds subspecialty certificates for tinnitus management and clinical precepting. She's actively involved in research and clinical trials focusing on tinnitus and the effects of hazardous noise exposure on the auditory and vestibular systems. Additionally, Dr. Kuzbyt serves on various national audiology councils and committees, and she contributes her time to the development of local and national clinical protocols and practice guidelines. She participated in the AAO HNS Tinnitus CPG Update Writing Group and representation of the American Academy of Audiology. Dr. Adrien Eshraghi, MD, is a professor of otolaryngology, neurosurgery, and pediatrics at the University of Miami, the co-director of the UHealth Ear Institute, and director of the Hearing Research and Cochlear Implant Research Laboratory. He has published over 200 papers on hearing loss and cochlear implantation. He served as the representative for the AAOHNS Board of Governors on developing the tinnitus guidelines we'll be discussing today. He recently published a book titled Overcoming Hearing Loss from Drug Therapy to Cochlear Implant Surgery, Advancements in the Management of Hearing Loss, which discusses how otolaryngologists, audiologists, and other hearing healthcare professionals can best serve patients with hearing loss and tinnitus.

Thank you for having us.

Thank you for having us.

Yes, welcome. We're so excited to have you on the podcast today. Now, you've both co-authored several articles about tinnitus with topics including but not limited to telehealth methods, outcome measures, and patient education. And you've both worked extensively with tinnitus patients in the clinic. So I'd love to hear from each of you a story or experience that sparked your deeper interest in tinnitus management as a specialty.

I guess I can get us started. My interest in tinnitus management really began during my externship year. I was at the Boston VA and I had the opportunity to train in the VA's progressive tinnitus management program. And so this was really my first exposure to evidence-based tinnitus care and it happened right at the very beginning of my career. After my externship, I joined a large medical academic center and I saw patients for tinnitus evaluations and management, including hearing aid based interventions. And over time, my role expanded into clinical research, excuse me, into clinical research, particularly looking at the effects of hazardous noise exposure on the auditory and vestibular systems. And then ultimately, research focused specifically on tinnitus. It was during this time that I became very interested in patient education and evidence-based tinnitus counseling. And along the way, I became increasingly involved with the Academy through volunteer opportunities and through committees. And one of those opportunities was participating in the Academy's tinnitus clinical practice guidelines writing group. And this involvement ultimately led me to the invitation to represent the Academy on this particular project. So I think that my path has been a combination of clinical practice and research and also professional service. And I think it was very special to be able to bring those different perspectives to the guideline development process. And it's just been a wonderful opportunity for me.

Awesome, thank you. It sounds like you've been involved in this space for a while, so that was great that you could bring this expertise into the guideline. Dr. Eshraghi, how about you?

Well, thank you. My interest started with the hearing loss actually, and many of our patients who have hearing loss unfortunately experienced significant tinnitus. And I noticed that many of them actually the tinnitus is the part that's bothering them the most. So my work was mainly to see how we can help those patients with hearing loss that have tinnitus. And through that angle, I observed with my colleagues that really cochlear implantation can be very useful for those patients that have deafness and hearing loss or even single-tie deafness with significant tinnitus. And This was, I want to say, when I started to become more involved in tinnitus management. And here I am. I was fortunate to be invited to be in the guideline from the academy leadership and had the opportunity to be with colleagues like Brianna, who represented very well the AMNIC Academy of Audiology and also other colleagues who represented various institutions such as psychiatric societies, such as behavior therapies. So really, that was a unique opportunity to work in a group that represented various specialty, various healthcare provider, neurologist, for example, that help us together to see where should be in 2026 regard of recommendation and tinnitus.

Y'all both so much for sharing. Before we dig a little bit more into the guideline, let's lay some foundation. What is the definition of tinnitus that this updated guideline is operating from?

I can take on this question. This guideline focuses specifically on bothersome persistent tinnitus. Persistent is defined as tinnitus lasting six months or longer. So we're really talking about patients whose tinnitus is having a meaningful impact on their quality of life. One important change from the 2014 guideline is the removal of the terms primary and secondary tinnitus. And instead this guideline is focusing on whether there's an identifiable underlying condition that might be contributing to the tinnitus and then managing that. Also, patients who we've identified as having causative conditions other than sensorineural hearing loss are outside of the scope of the guideline. And I think it's important to mention that because tinnitus is so commonly seen in various pathologies, it's important to remember that this is specifically focusing on those with sensorineural hearing loss. This is largely because these patients have historically been excluded from clinical trials of tinnitus treatments, and so we just don't have enough evidence to generalize to these populations. And finally, this guideline emphasizes the importance of distinguishing between subjective, objective, and pulsatile tinnitus because differentiating between those can help inform care and the next steps.

Thank you. That's really helpful context to hear about how this project was put together and how you brought in the other professionals as part of this working definition. I think I'll jump to here to really dive into the context of the scope of this project even further, because it was you and 20 co-authors who then put together about 50 pages of texts, charts, and tables And when we were reviewing it, there's about another 13 pages to hold 367 citations for the evidence that you all reviewed as part of this project. So we know we won't be able to capture everything, all the work that you did, but it's important for us to emphasize the practical applications. So starting with audiology clinicians who are inexperienced in tinnitus management, whether they be students, new graduates, or maybe experienced clinicians who feel that they haven't really explored tinnitus on its own, what are some of the crucial tools that this guideline provides that can help them confidently incorporate higher level tinnitus services into their practice?

Yeah, I think that this is really the question that matters to clinicians because it is a beefy document. There's a lot of information. It's very useful, but how do we navigate something that is so big, especially if you're new to the tinnitus space? I personally think that the guideline has practical applications for audiologists at all levels of experience. For people who are new to tinnitus care, I think it provides a really useful framework for approaching patients with tinnitus. There's a really nice flowchart resource that's included that

clinicians can follow in real time with their patients that kind of leads you by the nose in terms of what is the next step, what is the next referral. And I think that's important because tinnitus can sometimes feel like an intimidating area of practice, particularly when patients come in with significant distress or the expectation that we can eliminate the tinnitus. You don't need to be a tinnitus specialist to provide meaningful care, especially with documents like this available. Really, I think following the recommendations like identifying whether the tinnitus is bothersome, conducting a comprehensive audiological evaluation, recognizing if medical referral is appropriate, and providing accurate education. These are things that anybody can do if you don't have the time to provide these services in your appointments. Having printouts or handouts for your patients, which are available as part of this guideline as well, can be particularly helpful. And I think that also for more experienced tinnitus providers, the guideline offers an opportunity to kind of revisit our own existing protocols. and make sure that we are doing the things that are recommended. For example, are we routinely assessing for the risk of self-harm in patients with bothersome tinnitus? Are we considering and asking about somatosensory contributions? Are we recognizing patients who may benefit from a cochlear implant evaluation? So brushing up on these more nuanced aspects of tinnitus care can help even an advanced tinnitus care provider. One area I think is actually worth mentioning here, even though I'm talking for a while, is the recommendation for follow-up and outcome assessment. So understanding if what we're doing is actually making a meaningful impact in the patient's quality of life, are we achieving the goals that we are setting out to achieve with our patients as we help them manage their tinnitus? So really, whether you're just starting to see patients with tinnitus or you've been doing this for a long time, I think that this guideline provides a valuable opportunity to evaluate how we're delivering this care and ensure that our clinical decisions are grounded in the best possible evidence.

Great. And I'd love to hear from Dr. Eshraghi, but first I'd like to ask more about the outcomes to jump ahead to something we have been thinking about, because as the adult guidelines that came out recently for NASEM when we had Dr. Catherine Palmer on this podcast to talk about some of those hearing loss management guidelines and talking about what makes a meaningful outcome, are there any outcome measures that are recommended as part of this guideline or are there ones that we should be thinking about?

Yeah, that's a great question. And there's a whole new key action statement regarding the assessment and documentation of treatment outcome. The guideline does not recommend a specific questionnaire or survey tool, and it also doesn't recommend a specific timeline of administering these outcome measurements. Instead, it's looking at the importance of establishing with your patient goals. in terms of what does effective tinnitus management look like, what is reasonable and realistic, and also what does the

patient accept and understand as the goal of their treatment. There are several validated tools that are available. We know the Tinnitus Functional Index, the Tinnitus Handicap Inventory. But again, there's not one that is specifically recommended or pointed out by the guideline, even though the guideline does offer a very handy table of various tinnitus outcome measurements and really what it is that they're looking at. And the tinnitus reaction questionnaire for audiologists out there who are looking to incorporate the question of the risk of self-harm, this questionnaire has a question explicitly on there. So it's something that you can turn to and then discuss with your patient as they fill this out. And, you know, I think it's really important to remember that the success of tinnitus management isn't necessarily about reducing tinnitus loudness, but reducing the impact on the quality of life. And so if we're not asking about that and we're not following that over time, it can be hard to understand if we are having a meaningful impact in our patient's quality of life.

I think that's so true. I think really thinking about outcomes and how we can have a meaningful impact is so important when we talk about treatment and how we're talking to patients. Dr. Eshraghi, I'd really love to hear about your perspective working with these patients in the ENT clinic and how you feel the clinical impact of these guidelines is for you and for your colleagues on the ENT side of things.

Oh, thank you. I think the 1st of all, we have to mention that the clinician should always act and decide in a way that they believe will best serve their patients interest and needs. regardless of guideline recommendations. guideline represent the best judgment of a team of experienced clinician and methodologist addressing the scientific evidence for a particular topic. And that's very, very important. you know. Making a recommendation about health practices involve value judgment and the what is desirable or not of various outcome associated with those management options and values applied by the group that work on this sought to minimize harm, diminish unnecessary and inappropriate therapy. We know that, you know, patient can pay a lot of money for treatment that does not have any clinical based evidence. And the methodologist addressed really the scientific evidence for this particular topic that was tinnitus. So we are not, I want to say, coming up with all of the solution, but we try to decrease the harm, give some guideline that can be helpful. Now, what was done is to use many publications, clinical based evidence and publications, study them and come up with the grade of aggregate evidence. And there is grade A, B, C, D, and X. And based on this grading, we come up with treatment recommendation, we come up with strong recommendation, Or we come up with options. So the part of option allow the clinician to have a wide variety of opportunity and option to help their patients. The part that I think is important to us is the part that is say that we do not recommend. And that's actually important because we do not want the patient to be

harmed by exam that are not necessary. The harm can be obviously sometimes physical, like an inappropriate surgery, for example. Or it can be a harm, can be financial, going to a lot of expenses when the stress is already very stressful. We don't want to have more expenses. So I think that's an important part of this guideline to keep in mind.

I really do love the way that you phrased that about, that the goal is to not do harm and that harm can come in a lot of different ways. I don't think people talk enough about the different ways that we can do harm to patients. And I think that financial harm is correct because sometimes it's like, oh, well, why don't we just try this thing even if there's not a ton of evidence out there? But it is causing harm to the patients if it's costing a lot of money or taking a lot of time. And we already have research that shows that it's not effective when we could be putting that time somewhere else. Similarly, I think that goes back to Dr. Kuzbyt, what you were saying about having to assess for danger of self-harm in these patients too, that we want to make sure that we are assessing any of their mental health status to make sure that we're providing them everything that they need when we're talking with these patients. And so I think that's an excellent point. And I think hopefully providers will get a lot of suggestions on how they can better support these patients and continue to not unintentionally harm the patient as they treat them. And thinking of that, I know, again, we've talked a lot about some of the things that are included in this guideline, but do you think that there are suggestions or recommendations that will be particularly challenging for providers who maybe have some experience or a lot of experience with tinnitus before and feel, you know, I know what I'm doing and I feel pretty comfortable and I'm not ready to add something in or take something out of my practice just yet.

You know, I think when we approach this guideline or always, you know, I was involved in other guideline too, like a section with dysfunction. I think what is important is to look to see what are the strong recommendation that mean that there is a lot of clinical evidence about a specific issue related to that pathology. So in the summary of guideline for key action statement, we have three strong recommendation to keep in mind. The first one is that clinicians should distinguish patient with bothersome tinnitus from patient with no bothersome tinnitus because that have significant implication. The second one is that the clinician should inquire about the risk of self-harm in a patient with bothersome tinnitus. This is a very clear indication that some patient can injure himself. And that's very important that we have to assess that always. And then the third one is that clinicians should not obtain neuroaudiologic imaging in patients with tinnitus specifically to evaluate the tinnitus unless they have one or more of the following. And what are these following? Because that means that Audiologist should also think about those exams that maybe they have to refer to a physician, and physicians should think about those things. Okay, what are those things? So the first one is the tinnitus that localize into one ear only. We know that we

need to think about MRI because we have to rule out the possibility of acoustic neuroma. The second one is the pulsative tinnitus. The pulsative tinnitus require, obviously, imaging. So what are the typical exam that we do in our clinic is we do a CT of the head and neck to do rod vascular malformation. Or also sometimes we can find in the CAT scan sigmoid sinus that is not covered by the bone and we can maybe offer to a patient a particle surgery that's not actually very difficult to cover the dehiscent sigmoid sinus and that can happen a lot of patients. But what is important is to be ruling out a malformation of the vessels of the brain that can cause significant damage if you miss them and can actually have a legal implication. And finally, if we see a patient with a focal neurological abnormality or an asymmetrical hearing loss, a patient with asymmetrical hearing loss need to be evaluated with the radiological exam And when there's no contradiction, it's an MRI.

I'd love to add to that, to your question, specifically to comment on the challenges for implementation of these guidelines into a clinical setting for audiologists. What I think of first is the limited amount of time that we have with our patients often to do something impactful and to be thorough as the guideline recommends. It's a lot that is in these guidelines, and I think it could be somewhat daunting to see this and think, I got 10 minutes with my patient. How do I have the time to go through all of this? So to me, I think that that for audiologists can be one of the biggest barriers, especially because we can't bill insurances for counseling of patients for the most part. I also think that From my experience, the feedback that I've gotten from other audiologists who are entering the tinnitus care sphere is that it could be very uncomfortable to ask about things like the risk of self-harm. How do you start that conversation with a patient? And then what do you do if they tell you that they are thinking of harming themselves? So having these difficult conversations, but also having a protocol in place for what to do when you encounter someone who needs this kind of help, for some people can be a bit hard to implement. And so I think being prepared for incorporating these recommendations, like having protocols in place, can make it a little bit easier. The last thing that I think about also is the new recommendation for sending people who are candidates for a cochlear implant for an evaluation for that treatment the candidacy criteria for cochlear implantation changes as we get new evidence. And so staying on top of who is a candidate and who is not can seem like a lot to keep track of, especially for someone who is perhaps not involved in a center that does cochlear implantations. And so being mindful of what those criteria are generally, being confident in making recommendations, even if the person you're referring for a cochlear implant eval is found to not be a candidate, recognizing that you are doing good by having this on your radar, recognizing when a patient might need that type of extra care, and then making that recommendation.

I think you raise a very important issue that we know that, unfortunately, even in United States, A majority of patients who can benefit from cochlear implant are not benefiting from that. And imagine somebody is not benefiting from that and suffering from tinnitus. While we know that cochlear implantation for those patients with tinnitus might be helpful, not only to help them to hear better, but also manage their tinnitus. Actually, American Cochlear Alliances came up with strategy to see how we can reach more healthcare provider to be able to provide those help. We actually just recently published a book about how to overcome hearing loss with drug therapy to cochlear implant surgery. And one of the chapter was actually that I asked one of my audiology colleagues to write that is actually was about tinnitus. You know, tinnitus is one of the situation that we can really help the patient with some tools that we have. And obviously you guys are doing a great job in your clinics with patients. Sometime also we need to be a bit more, I wanna say forthcoming and think about maybe options like cochlear implant if that can help the patient.

Thank you. It sounds like that was one big takeaway and update from this guideline was As a possible treatment approach, as you said, these candidacy criterias have expanded. That's something that we as audiologists can stay up to date with and work with our ENT colleagues. And I'm so happy that we have both of you on to hear from the variety of professionals that this person with tinnitus may encounter. And as you mentioned, there were other professionals that were involved in this guideline. What does the guideline tell us about how we can collaborate with our colleagues in other specialties, maybe our colleagues in primary care, or even with each other between otolaryngology and audiology to best benefit these patients?

That's a great question. And in my experience, a multidisciplinary approach to managing tinnitus is what is in the patient's best interest, especially when it calls for that. The guideline was unique in that it was written by a group of people who are also stakeholders in the content of this. So these are people who we are looking to reach who are then also contributing their expertise into this guideline. I have the benefit of working in a large academic medical center which is multidisciplinary and so for me it might be a little bit different than from someone in private practice or in educational audiology or in a different practice setting. But I think reviewing the key action statements of the guideline itself lends itself to the understanding of how multidisciplinary caring for tinnitus really can be. Asking the questions during the initial history interview can help you decide as an audiologist when it would be appropriate to either send your patient to see an ENT or an otologist for medical management of an underlying pathology, for example. When you ask about somatic involvement, that might help you understand when it would be appropriate to recommend an evaluation by a physical therapist for temporal mandibular joint disorder, for example. Cognitive behavioral therapy is a big one. That one has a very strong evidence

base and unfortunately, one bit of feedback that I get often from my patients is having access to the care from a psychologist or a trained mental health professional to receive cognitive behavioral therapy. In situations like this, I have found myself needing to reach out to other providers in my area and have that conversation and start that for my patients about, you know, what is tinnitus and why would CBT be helpful for them? And so while there are a lot of barriers, I think for both the patient and for the provider for establishing this multidisciplinary team, I think that the guideline does a good job of outlining just by listing its key action statements, just how interconnected the whole medical system can be in one medical problem, which in this case is tinnitus, and it's under an umbrella of many different specialties, not just audiology. And even though audiologists oftentimes direct the care for our patients receiving tinnitus care, that a lot of people can really play a significant role, sometimes more than audiologists in the care. But it's really the audiologists who in many cases act as that I don't want to say a gatekeeper, but really as that first point person. And it really behooves us to have an understanding of how interconnected these different systems can be to establish an awareness of a professional network of people that we can refer into and also help give our patients resources when that access to care is not there for whatever the reason is. So giving them educational materials, giving them recommendations that are more generalized. For example, if you notice that your tinnitus changes when you open and close your jaw, perhaps consider discussing this with your primary care doctor as an evaluation by a different type of professional, could be warranted or could be helpful, et cetera. So again, even though as audiologists, oftentimes we shepherd our patients into these various multidisciplinary specialties. We don't have to do it all. And working with our colleagues to manage tinnitus holistically for our patients tends to be what is recommended in this guideline and also what is showing to be effective.

Great. I'd love to hear your thoughts as well, Dr. Eshraghi, with working with your colleagues or how you feel working with audiologists on tinnitus and other colleagues you work with in this sphere.

I love that. I love to work with my audiologist. I love also to have the opportunity to have a psychologist who accept to see these patients. I think really the composition of our guideline members shows the necessity of a team approach to patient who are suffering. And I think that's why it's important that if we assess that the patient has a significant bother something like this, we need to approach this patient with team approach. I think audiologists are the first line collaborator that I'm happy to work with. And I think psychologists can be very, very helpful if a patient need that and we need to keep in mind that. And from there, there's obviously other team members. If patient has migraine, we have to think about how to help them be the neurologist. If the patient has a psychiatric problem, we need maybe not just see them as a bit by a psychologist, but maybe a senior

psychiatrist. If there is a suicidal thoughts, really psychiatry approach is very, very important and so on. And if the patient has a TMJ problem, obviously thinking about working with specialists that can help them with their TMJ.

Absolutely. I mean, I think for me, a takeaway certainly from these guidelines is just the importance of that team approach and collaboration with tinnitus, which of course is really true with all of our patients, but having that input from. psychologists or neurology when needed, of course, continuing to work with our ENT colleagues, and even working with other audiologists when needed. I mean, I know I'm not someone who considers myself to be an expert in tinnitus. And so knowing who to talk to if I have questions about. more complex tinnitus cases. Or for audiologists who maybe have a good grasp on tinnitus but don't regularly work with cochlear implant patients, knowing who to refer with when they're starting to see those signs that maybe a patient who's having bothersome tinnitus is also an excellent candidate for cochlear implantation. I think that collaboration both with our colleagues within our realm but also of course with all of our colleagues in healthcare outside of what we do just makes us better and helps us serve the patients in a more meaningful, impactful way to ensure, like we were saying earlier, that we're not causing harm to these patients and ultimately helping them with these very bothersome and often difficult problems that they're bringing to us. With that, I know we're kind of getting to the end of our time. So if there's any other takeaways or key points that you would love for listeners to remember and really take back to their clinical practice, I would love to hear any kind of final thoughts that y'all might have about tinnitus and these guidelines that you put together.

I think it's important for everyone to remember and as these guidelines kind of illustrate that the end of the medical and audiological workup is not the end of tinnitus care. That's for most people the beginning, especially as audiologists, that's often what we see. And so guiding our patients through that part of the management plan is our responsibility. We are the people who know the most and this is within our scope of practice to guide our patients in this way. And so having an understanding of what is being recommended to patients with tinnitus, what does the evidence support as the best practice and having it all in one place that we can then easily reference can be very, very useful for us as we see people in real time so that we can make a meaningful impact in their life, even if we don't see them again ourselves for that care. But giving them the information and the awareness of what resources are available to them and pointing them to the resources that exist like in as part of this document can be extremely impactful.

You know, we talk a lot about recommendation, but I like to mention that the guideline also have some recommendation against some approaches. I'd like to mention them because I

think that was also interesting experience that we had all together after analyzing the clinical-based evidence available at this time for us. So one of the recommendation against is that the clinician should not routinely recommend antidepressant, anticompulsant, anxiolytics, or intratapanic medication injection. for a primary indication of treating persistent bothersome tinnitus. Obviously, we can do the injection for hearing loss that have tinnitus that is recent, but we don't want to recommend using injection of steroid for someone who has only tinnitus for long time. And another recommendation against is that clinicians should not recommend RTMS for the treatment of patient with persistent bothersome tinnitus. And there is another recommendation against is that we should not obtain neuroradiologic imaging in patients with tinnitus, specifically available evaluating the tinnitus, unless they have one or more of the following that we mentioned: asymmetric **** loss, one-side tinnitus, or neurological problem. So I think it's always important to remember that. Oh, there's another one that we clinician have to be aware of that they should not recommend dietary supplement for the primary indication of persistent mother tinnitus. You know, we are used to see clinician giving a number of dietary supplement to the patient that can cost a lot of money to them. So you have to Think twice before you start with the big list of dietary supplements, unless obviously some of them are good for the patient, but not same to the patient that's going to resolve your tinnitus.

Thank you. I think that's valuable as an opportunity both for clinicians to, as Dr. Kuzbyt, you said, think about what's new, think about the management. How can we make sure that we're continuing with these patients beyond that initial diagnosis stage? But then to reevaluate what have we been recommending, what might we have seen in the practice with people that we work with and verify this against the updated guidelines that you all reviewed. You, as you mentioned, reviewed a lot of the data. And we know as well our patients are oftentimes getting targeted advertising that can introduce them to misleading information. And they may be asking us about this in the clinic. Oh, My phone heard me and now it's showing me ads for so and so, right? And so this guideline is a great way for us to have a resource to say, well, in the evidence that's been reviewed that this may not be helpful and we wouldn't recommend this in this way. So it's good to know what we can do and what we may avoid. So thank you for that. All right, well, thank you both for all of the wonderful information that you shared. While our show is called Science Meets the Sound Booth, we love to close by asking our guests outside of the sound booth or outside of the clinic or OR, what is a habit, hobby, or mindset that helps you stay balanced and focused?

Outside of the sound booth, I don't have a lot of free time. I have got two young kids, four and two years old. So what I like to do to relax is to read. I read a lot. audio books count as reading I will die on this hill and I like to do this while getting all of my chores done

yeah I love to spend time with my family and the children especially I love to spend time walking the sand and the be at the beach I love that and also more recently I'm playing pickleball and I love that

Awesome. Thank you both so much. Thank you for listening to Science Meets the Sound Booth sponsored by the AAA Foundation. We hope today's discussion provided clinically relevant insights you can apply in your practice and professional development. For references, additional resources, and future episodes, be sure to follow the American Academy of Audiology to stay connected. If you found this episode valuable, consider sharing it with audiology colleagues, friends, and students.