Minnesota Academy of Audiology
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Featured Article

Thinking Beyond the Ears for Patients with Hidden Hearing Loss

David Jedlicka, Au.D.

Every audiologist has a story they can share about a patient or an event that made them change the way they provide hearing healthcare to their patients. These stories can range from being absurd, humorous, terrifying, or sometimes a combination of these elements. My story takes place in October 2009 while I was completing my externship at the Pittsburgh VA Medical Center. I was scheduled to see a new patient. This person was in his early 30s and was referred by his primary care provider to pursue hearing aids after a discharge audiometric evaluation found hearing loss bilaterally.

At the time I didn't do much investigation into the patient's medical record as the referral from the primary care physician was straight forward. I called the patient from the waiting room and we made cordial small talk as we made our way to the test booth. In the booth, I reviewed the patient's case history form which, at the time, only asked questions about the patient's otologic and audiological history. This individual reported that he experienced noise exposure during his deployments and that he was diagnosed with hearing loss. He was employed as a police officer at that time and was pursuing amplification to help him be able to perform his required duties. After we finished reviewing the case history, the patient offered me a copy of his discharge audiogram which showed a flat 60 dB HL hearing loss (speech testing and bone conduction thresholds were not obtained). The patient didn't show any signs of non-organic hearing loss during our brief interaction, but obviously a flat 60 dB hearing loss will raise a red flag for most audiologists; especially since there were no signs of communication impairment during our brief initial interaction.

I am a staunch believer in starting audiometric evaluations for new patients with SRT testing. This specific case validated my opinion of test order because the patient's SRT scores were 20 dB HL in each ear. When we switched to pure tone air conduction testing, the patient would not respond to any presentation level below 60 dB HL. Despite several attempts at reinstruction and even changing the transducer, the pure tone thresholds only improved slightly and were not in agreement with the SRT scores. To ensure that I was confident in my results, I administered my word recognition presentation at various levels, all significantly lower than the patient's pure tone average. He scored above 90% correct at all presentation levels.

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In This Issue

Hidden Hearing Loss, *cont.*

During this point in the appointment, I decided my best course of action was to confront the patient about the results not being in agreement and that his hearing was likely better than how he was responding. After delivering this news, the patient became upset and demanded to speak with my supervisor because he felt that it was clear I obviously wasn't doing my job correctly. The combination of seeing the patient's anger and frustration boil over while questioning my abilities as an audiologist is something that will be seared in my head forever. As uncomfortable as that experience was, I wouldn't trade it for anything that I've learned thus far because it forced me to better understand patients and explore a specialty of audiology that was set to become a hot topic in our profession.

This patient returned the next day to see my supervisor for ABR testing. The ABR showed normal hearing thresholds with slightly poorer than anticipated wave morphology. My supervisor readministered pure tone air conduction testing and with stern instructions, was able to get this patient's pure tone thresholds to more closely match his SRT score.

In 2009, many clinics may have told this patient that his hearing was normal and that there was nothing else that could be done for him. Luckily, at that time, one of my fellow externs suggested that we complete auditory processing disorder (APD) testing on this veteran. We found that this veteran had severe difficulty hearing in any listening environment with competing signals. The recommendation for him was to complete home-based aural rehabilitation and we agreed to fit him with low gain, open-fit hearing aids which is what he was seeking from his initial appointment.

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This one experience has driven much of my clinical focus throughout my career. I've dedicated a significant portion of my professional career to learning as much as I can about adult-based hidden hearing loss while also engaging in research in this topic area because there is a significant lack of information available due to this specialty area being relatively new. I am a believer that most great clinical research questions start with an interesting case study. As more servicemembers returned from Iraq and Afghanistan, we saw an increase in patients who had remarkably similar auditory complaints as the initial patient. From that initial patient, two particularly important things changed. First, we developed a specific case history form based on the information recommended by APD experts while also including information specific to the veteran population. Secondly, we completed a more thorough chart review to gain a better understanding of the patient's comorbidities.

We started observing trends among patients with normal audiometric thresholds but significant self-perceived hearing handicap. This was the inspiration for two research projects at the Pittsburgh VA. The first was a study looking at the effects of blast-exposure and post traumatic stress disorder (PTSD) on perceived hearing handicap and performance on various audiological and speech test measures. A subset of participants in this study also received low gain hearing aids to measure the use, perceived benefit, and measurable improvement, if any, were provided by this treatment. The second study evaluated the rates of comorbidities among Veterans with self-perceived hearing handicap and normal audiometric thresholds compared to a group of matched control subjects.

What we found from the blast-exposure study is that patients with self-perceived hearing handicap and normal audiometric thresholds universally self-report benefit from low gain hearing aids, however datalogging suggests that on average they are likely to not wear the hearing aids. Anecdotal evidence from these patients suggests that the reason they are not likely to wear the devices is because it does not help them in the environments where they feel they have difficulty hearing, specifically hearing in background noise. We can confirm from this study that those with self-perceived hearing handicap with normal audiometric thresholds tend to have abnormal electrophysiological test findings with poor wave morphology. While we have the objective measures to support the patient's reports, we still do not have a way to provide treatment to this specific population.

Our second study looked at comorbidities in this patient population compared to an age-matched control group. This study produced very compelling data. This study reviewed the number of comorbidities in each group. Interestingly, individuals with self-perceived hearing handicap on average had nearly two times as many medical diagnoses in their medical

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Hidden Hearing Loss, *cont.*

record compared to the control group. We took a deeper dive into these diagnoses and found trends that truly highlight the importance of providing interdisciplinary care and referrals.

After reviewing the comorbidities, we found that there were five specific domains where the self-perceived hearing handicap group were likely to have significantly more comorbidities than the control group. These comorbidities included mental health disorders, traumatic brain injury, sleep impairments, chronic pain disorders, and substance abuse. These findings supported our decision to include other health professionals in the treatment of individuals with self-perceived hearing handicap. It also demonstrated the importance for our clinicians working with this population to understand these commonly occurring comorbidities, how it can impact a patient's perception of hearing ability, and where to refer these patients to ensure they receive the appropriate care.

Currently our APD interdisciplinary team consists of audiology, neuropsychology, speech pathology, neurology, psychology, psychiatry, social work, and primary care. Not every discipline is needed for each patient because there is no one-size-fits-all treatment approach for this population. We have instances where a patient may need to see everyone on the team for treatment while others may only need to see the audiologist and receive aural rehabilitation services. By having a solid understanding of what each discipline brings to the table for these patients, we can complete a comprehensive case history form, administer accurate testing, and provide treatment recommendations by looking at the patient as a whole rather than simply trying to treat a symptom of something larger, which may only be presenting as self-perceived hearing handicap.

A comprehensive medical team is easy to assemble in a medical system like the VA, however all audiologists must have other professionals to whom they can refer based on the patient's needs. Developing these professional connections helps to ensure you are providing the best care for your patient while also providing an opportunity for you to educate other professionals about the field of audiology. You will have the opportunity to learn how mental health comorbidities such as adjustment disorder, attention deficits, anger, anxiety, depression, hypervigilance, and PTSD can prevent someone from attending to target sounds and speech needed for effective communication. Developing a better understanding of how chronic pain and sleep impairments can reduce cognitive functioning will allow you to better counsel your patients and help them develop a better understanding of why they might be perceiving difficulty hearing and more importantly encourage them to seek treatment from the professionals who can provide that treatment.

When we completed our chart review study of these comorbidities, we also evaluated patients with self-perceived hearing handicap who returned for follow-up audiological care. What we found was those who had the greatest reduction in self-perceived hearing handicap were those who were receiving treatment and were compliant with their treatment for these comorbidities; including the patient mentioned at the beginning of this article. It is my hope that our profession will continue to embrace and expand our role with the interdisciplinary care approach. Most audiologists consider an interdisciplinary approach necessary for specialty areas such as vestibular, osseo-integrated devices, and cochlear implants, so why shouldn't APD be included as well? Regardless of the complaint, we all have a duty when treating patients : Evaluate that individual's needs beyond the ears and provide them with the proper resources to receive treatment.

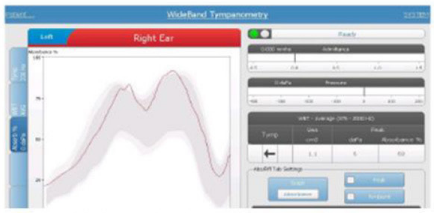
Dr. David Jedlicka is an advanced practice audiologist at the VA Pittsburgh Healthcare System where he specializes in auditory processing disorders, vestibular diagnostics, osseo-integrated devices, and clinical research. Dr. Jedlicka completed his AuD at the University of Pittsburgh and has been employed by the VA since 2010. Dr. Jedlicka also serves as an adjunct faculty member in the University of Pittsburgh's Doctor of Audiology program where he teaches courses on audiological assessment and differential diagnosis. Dr. Jedlicka is also an audiology researcher at the VA Pittsburgh Healthcare System and University of Pittsburgh. Dr. Jedlicka is currently pursuing his Ph.D. in audiology at the University of Pittsburgh with a focus on auditory processing disorders and implementation science.

Welcome New Members

Audiologists
Lori Marion, Au.D.
Dana McCray, Au.D.
Ann Miller, Au.D.

Students
Sarabeth Mills-Wolf

The GSI TympStar Pro™ provides a full range of middle ear measurements on patients of all ages. Our versatile touchscreen clinical tympanometer now includes WideBand Tympanometry testing capabilities. WideBand Tympanometry provides an in-depth, comprehensive assessment of the status of the middle ear in the same amount of time it takes to complete a traditional 226 Hz tympanogram. Using the wideband click stimulus, a single pressure sweep yields tympanograms at multiple frequencies, a wideband average tympanogram, and middle ear wideband absorbance test results.



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Member Spotlight

Patricia Argote-Muza, Au.D.

Park Nicollet - St. Louis Park

Please share your journey to Minnesota and the field of audiology.

I was born and grew up in Colombia, where I attended undergraduate and graduate school for Communication Disorders and Specialist in Audiology degrees. I worked as a clinical audiologist there for five years. I came here in 2000 when I earned a position as a sales representative and training audiologist for Latin America at the international business development department of Starkey Laboratories. I worked with them for five years, traveling to twelve counties in Latin America and Spain. It was a fantastic experience professionally and an amazing cultural enrichment journey.

After five years of traveling, I decided to go back to the clinical world, which I am more passionate about. Colombian education for health careers was not validated in Minnesota, so I needed to obtain my degree in this country. I completed my Au.D at the University of Minnesota to become a licensed audiologist, another fulfilling experience where I met talented professors and smart classmates!

After graduation, I worked as a clinical audiologist at Allina-Coon Rapids for almost ten years and, four years ago, I started my job at Park Nicollet - St. Louis Park. I am very proud of the great experiences I gained while working in both organizations with compassionate and talented colleagues.

What is your favorite part about being an audiologist?

My favorite part is when my patients share with me how their hearing aids have helped to overcome their issues and how what I have done for them has improved their quality of life. Those days, I feel like I have contributed to making a difference in people's lives. But when things have not gone that well, I have also learned from those experiences —from my strengths and weaknesses. I also enjoy the professional and warm relationships I establish with the patients I serve. I enjoy getting to know them, hearing their stories, sharing mine, and appreciate the advice and wisdom. I cannot be more grateful for all of that.

How has your perspective as a Colombian and bilingual audiologist influenced your practice?

It has made a significant difference in the services provided to patients not only because I can communicate, evaluate, and treat them in Spanish, but because they feel comfortable, at ease, and the cultural connection really helps the process of their care. The other aspect is that being bilingual has helped me to be more aware and sensitive of the difficulties of patients of diverse backgrounds who speak other languages and for whom I need interpreters.

Why are you a member of the Minnesota Academy of Audiology?

I have been a member since I was a student at the UMN. I think is very important to support our national and local professional associations because they advance our profession. Being organized certainly helps our profession to be known, recognized, and respected in our communities. I particularly appreciate and admire the job that MAA does advocating at the government level, as well as with continued education through the annual winter conference.

What advice do you have for students or audiologists entering the field?

Build relationships of trust, respect, and kindness with your patients and their families as you can. Gain experience with confidence and perform your job following evidence-based practices and protocols. Above all, make sure you are happy and enjoy what you do. There will be ups and downs but be resilient if audiology is your passion.

What do you do in your spare time?

During my spare time I enjoy outdoor activities with my family such hiking, snorkeling, cross country skiing, and recently, playing pickleball. I truly enjoy traveling, learning about different countries and cultures, as well as exploring national parks which we try to do during our vacation time.

What Do We Know About Hearing Aids and Cognitive Impairment?

Aaron M. Roman, Au.D.

As hearing healthcare providers, the impact of hearing loss on quality of life is well-understood and not easily overstated. Evidence has shown hearing loss, particularly untreated hearing loss, to have particularly negative effects on socialization and mental health. Over the past decade or so, our gaze has turned to assessing the impact of hearing loss on cognitive performance. It has become a cliché of sorts to start any discussion of hearing impairment that hearing loss is prevalent in two thirds of those above age 70[1], however given the salience to the topic at hand, it's important to reiterate the point. More importantly, data from the Global Burden of Disease has found that nearly all individuals will experience some level of hearing impairment due to advanced age, estimating that 698 million people will have a moderate-to-complete loss of hearing by 2050[2]. From a cognition standpoint, this prediction is quite alarming. Hearing impairment has recently been recognized as one of the greatest risk factors for a diagnosis of dementia or cognitive impairment[3]. Moderate to severe peripheral hearing impairment specifically has been linked to a greater risk of dementia compared to those without hearing loss[4]. Additionally, those with moderate to severe hearing loss are 42–54% more likely to report subjective symptoms of cognitive impairment[5].

How are Hearing Loss and Cognitive Impairment Related?

The mechanism, or mechanisms, by which hearing loss and cognitive impairment are connected is not fully understood, but several models have been explored. One suggestion is that because cognitive assessment is generally administered verbally , a reduction of audibility can negatively bias performance[6,7]. Recently however, modified versions of cognitive tests such as a Montreal Cognitive Assessment (MoCA) have become available that provide a visual instruction presentation to supplement auditory instruction for those with hearing impairment (the Hearing-Impaired Montreal Cognitive Assessment (HI-MoCA) in this case). The phenomena of reduced audibility influencing cognitive assessments of those with hearing loss does not alone explain the relationship between hearing loss and cognitive impairment. One hypothesis, termed the ***deprivation hypothesis***, suggests that hearing loss negatively affects brain integrity, leading to cognitive decline and ultimately dementia[8,9]. A potential alternative hypothesis is that hearing loss requires a higher cognitive demand to perceive sounds, taking away vital neurological resources to other important cognitive processes, called the ***cognitive load*** hypothesis[10,11]. Another hypothesis, the ***cascade hypothesis***, suggests that hearing loss leads to social isolation, which leads to less neural stimulation and ultimately cognitive decline[12]. One further hypothesis suggests that both hearing loss and cognitive decline are part of the normal aging process and share a common cause. In reality, it is likely that the relationship between hearing loss and cognition is reliant on a combination of these hypotheses. As a healthcare provider, we must be cognizant of all these theories to determine possible benefits and barriers in providing quality care to our patients.

Can Hearing Aids Help?

Understanding the mechanisms that may connect hearing loss and cognitive impairment is the first step in determining an appropriate course of action in treating this population. The question arises as to the benefits of amplification. It was already established that those with a moderate hearing impairment or greater tend to have a higher risk for cognitive impairment, but will hearing aids improve their cognitive outcomes? The answer from the evidence is complicated. Lin et al. found that hearing aid use has been linked to lower rates of cognitive decline and lower risk of cognitive impairment, though in this particular study, these findings were statistically insignificant8. Dawes et al. found a clinically similar, though also statistically insignificant, correlation between hearing aid usage and cognitive status[13]. The researchers suggest that hearing aids interrupt the cascade hypothesis and thus intervene with potential cognitive impairment brought about by the social effects of hearing loss. They further offered an alternative takeaway from their study; those who are more cognitively-abled are better equipped to obtain hearing aids than those individuals with more significant cognitive impairment. This claim has been disputed by evidence that suggests that cognitive capacity is not a limiting factor in hearing aid administration[14].

We see from the evidence outlined above that there are indicators of clinical but not statistically significant benefits to hearing aids as an intervention for cognitive impairment, but many of these studies were conducted by

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Cognitive Impairment, *cont.*

comparing cohorts, and not looking at participants over time. One study out of France in 2016 assessed the impact of hearing loss, as well as the benefit of hearing aids, on cognition over a 25-year period. This study used the Mini Mental-State Examination (MMSE)[15] to assess cognitive status at various follow-ups over the 25 years and found that more severe hearing loss significantly correlated with lower MMSE scores and greater cognitive decline by the end of the study period. The researchers also found that those with hearing loss who did not wear hearing aids demonstrated a significantly higher decline on MMSE scores when compared to the control group without hearing loss. When the researchers compared those with hearing loss who wore hearing aids, there was no significant difference from the control group[16]. This is one of the strongest pieces of evidence that use of hearing aids in individuals may act as a deterrent for exacerbating cognitive impairment, though it is apparent that much work still needs to be done. Additional evidence suggests that use of hearing aids among those with hearing loss prevents dementia-related symptoms, as well as depression, anxiety, and risk of falls[17]. While there are few studies that look at the relationship between hearing loss treatment and dementia, a systematic review of hearing loss treatment and cognitive impairment found that the evidence that exists shows that some subjects demonstrated improved outcomes in behavioral symptoms and speech-in-noise performance[18].

Programming Considerations for those with Cognitive Impairment

As with the evidence evaluating the benefit of hearing aids on cognitive impairment, there is conflicting evidence about the role of cognitive impairment on hearing aid programming considerations. There is some evidence that higher working memory capacity is linked to improved speech intelligibility when listening to frequency-compressed speech[19]. There is evidence that those with higher cognitive function perform better with fast dynamic compression than those with lower cognitive function[20], however those with lower cognitive function do perceive a benefit from fast compression, especially when context is provided[21]. It is clear that the jury is still very much out in determining if special considerations in hearing aid programming should be taken into account when working with a population with cognitive impairment, though hopefully future research will explore this.

In Summary...

While it is clear that much more work needs to be done to explore the relationship between hearing aids and cognitive impairment, the evidence that exists suggests that hearing aids may improve cognition-based outcomes for those with hearing loss, particularly when compared to those with untreated hearing loss. More evidence around hearing aid programming considerations, as well as aural rehabilitation for this population will aid in determining the best solutions for this patient population. Hearing healthcare providers can provide a pivotal service by remaining cognizant of their patients' cognitive performance and to educate their patients on the role of hearing in cognition.

Dr. Aaron Roman is an Assistant Professor of Communication Sciences and Disorders at West Chester University of Pennsylvania. He received his B.A, M.A., and Doctor of Audiology degrees from the University of Pittsburgh. His research endeavors primarily assess the impact of hearing loss on cognitive functioning, as well as the efficacy of hearing loss identification programs. His work has been disseminated through peer reviewed publication, as well as national and international presentations. He additionally serves as a member of the Research Initiatives Committee as well as the chairperson of the State Relations Committee for the American Academy of Audiology.

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Cognitive Impairment, *cont.*

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Tech Tips

Lost Hearing Aids

When you or the patient is loading the compatible hearing aid app, make sure that they are allowing "locator" to "always" check in with their hearing aids for tracking purposes. The phone has a GPS inside, the hearing aids do not. The app checks in with the hearing aids routinely and will be able to provide the last known location when you select "Find My Hearing Aids." If the locator isn't given permission to check in with your hearing aids periodically it will not be able to indicate the devices' last known location.

To change a setting previously entered on an iPhone go to "settings" > "privacy" > "location settings" > click into the "Brand X Hearing Aid App" and change to "Always."

Message From Your President

Jason Leyendecker, Au.D.
2022 MAA President

Spring is here! The birds are chirping and audiologists are meeting in person again! Since our last newsletter I have attended two in person conferences and I can say, "Man, it is good to be back!" While the classes have been stellar, there is so much more to learn from having a cup of coffee with a colleague or better yet, a beverage in the bar with your state lobbyist. There is a significant amount of value that comes from attending conferences and being a member of your state and national organizations.

I recently attended the American Academy of Audiology conference and HearTECH Expo in St. Louis, Missouri. The conference had some very good sessions on TBI, pharmacology, grand rounds for amplification, plus many more. I was able to learn more about the Interstate Compact and what it could mean for audiologists around the country. One of the most valuable sessions was the state leaders' networking meeting.

It was great to meet so many other people who are passionate about moving the needle of audiology forward. Every state has their mountains to climb and challenges to face, but one thing was common among all states represented in that room: Membership. Every state faces the challenge of recruiting more members to their organization. Membership is the backbone of our organizations. Without memberships we won't have great classes to attend, we won't have conferences to go to, and most importantly we won't have a secure future.

By attending that state leaders meeting, it has given me a different outlook on what membership means, all thanks to the Texas Academy of Audiology. One of their statements that rang true to me was, "We invest so much into our education that we need to pay our membership dues to our state organization as an insurance plan for our future." Simply joining your state organization can be one of the best ways to protect your degree and help secure our future.

As audiologists, we need to take ownership of our profession, which starts by everyone joining their state organization. After spending a few years on the board for both the Minnesota Academy of Audiology and national Academy of Doctors of Audiology, it is evident that legislation affecting our profession could pop up at a moment's notice. We need to be proactive in our own legislation efforts which requires financial support and a unified team effort. Having an offense is the best defense when it comes to legislation. By continuously making these efforts, we can help control our destiny.

Here is my challenge to you; I am challenging every member to reach out to at least one non-member and ask them what it would take for them to join. Teaching them the values you get from being a member with MAA and why you joined the organization. We need to take ownership of our profession and this starts with 100% participation at the state level with a proactive approach to legislation. I've quoted this person before, but I believe it is imperative to our future. *"The best way to predict the future is to create it."* - Peter Drucker

Student Spotlight

Madeline Osborne

Second Year Au.D. Student, University of Minnesota

Tell us a bit about yourself, how did you find audiology?

I originally wanted nothing to do with audiology. My brother, Ben, has a cochlear implant and I felt like my childhood revolved around his hearing loss and all of the associated appointments, clinics, and events. Although I was happy to be involved in all of these things while I was growing up, I wanted to pursue something completely different in college so I double-majored in International Affairs and Spanish & Portuguese at the University of Colorado - Boulder.

Post-college, I worked as a bilingual 4th grade teacher for a bit and then also in a traditional office setting but ultimately I decided that while those career paths weren't for me, wanting to help others, especially children, is. As I contemplated what the best career path for me would be, a family friend who is a speech language pathologist (SLP) encouraged me to consider a career as an SLP. So I enrolled in a post-baccalaureate program at the University of Maryland - College Park but ultimately ended up falling more in love with the classes centered around audiology. I've learned to further appreciate my background as a sibling of a person who is deaf and has a cochlear implant, which I believe can only enhance my future audiology career as I know what it's like to be on the other side of the table. I also hope to work with a diverse array of people in my future career so that I can take advantage of my Spanish and Portuguese skills!

What has been your favorite class or topic while in graduate school so far and why?

My favorite class while in graduate school is a toss up between Cochlear Implants (CI) and Pediatric Audiology. I loved my CI class because I was able to discuss the lectures after class with my brother and compare his experiences with his CI to what we reviewed in class. It was wonderful to be able to make personal connections with the intensive material we learned. On the other hand, I hope to become a pediatric audiologist, so I also loved my Pediatric Audiology class. I really enjoyed hearing about what modifications audiologists can make to the testing procedures and rapport-building to better connect with pediatric patients and their families.

If you could take the perfect vacation, what would that look like?

Any vacation right now would be wonderful but my perfect vacation would probably be returning to Madrid, Spain, with my boyfriend and family. I lived in Madrid while studying abroad during my junior year of college and would love to re-experience it with loved ones who are new to the city. Plus, I really miss tapas and tinto verano!

Looking 5 years in the future, where do you see yourself in your audiology career?

In five years, I hope to be working as a pediatric audiologist and it would be especially wonderful if I am specifically working with children planning to get cochlear implants. I also thoroughly enjoy my current role as the Audiology At-Large Chair for the Phillips Neighborhood Clinic, a free clinic operated by University of Minnesota health professional students, and, in the future, I hope to continue volunteering for similar organizations.

Do you have any special hidden talents or fun hobbies?

I can pick up accents and learn new languages quickly - I currently know English, Spanish and Brazilian Portuguese along with Cued Speech, and I'm eager to learn even more as soon as my very hectic schedule eases up (which likely won't happen until after graduate school!).

What is the best non-audiology book that you have read?

Honestly, this is one of the hardest questions I could ever be asked because I am a huge reader and have loved almost all books I've read. My absolute favorite is "Pride and Prejudice" by Jane Austen but the most recent book I've read that I loved was "Crying in H Mart," a novel about love, grief, identity, parent-child relationships and, most importantly, food!

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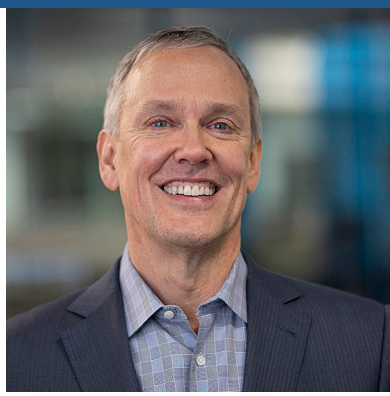
Address all questions and comments to the editors:
Rachel E. Allgor, Au.D., FAAA
Eric Robert Barrett, Au.D.

The Importance of Inclusion and the Dangers of Perpetuating Hearing Aid Stigma



Dave Fabry, Ph.D.

When I started my career as an audiologist, I wanted to help as many people as I could to live fuller lives by helping them re-engage with their loved ones. I've been lucky enough to do that around the world and with people of all ages and backgrounds. I wanted to write today to underscore the importance of inclusion and discuss the dangers of perpetuating hearing aid stigma.

I appreciated Tim Shriver's message about the importance of inclusion when Starkey and Special Olympics launched a partnership in March to provide hearing aids to athletes. He said, "people with intellectual disabilities (ID) are often the most marginalized. This partnership means more people with ID will be able to go to school, to work, and to literally be part of the conversation about ending discrimination." Special Olympics plays its own role in inclusion and representation by showing athletes and their families all the possibilities that they have before them. I was so moved by Dr. Shriver's words and grateful that we are able to play a part in providing the gift of hearing. Giving someone the gift of hearing, of communicating, means bringing them into the fold of society.

Representation of the hard of hearing and deaf community on the big screen has seen an increase in the past few years. Hollywood has had more hard-of-hearing and Deaf actors and characters in TV shows and movies like Hawkeye, CODA, A Quiet Place, and Sound of Metal, to name a few. The importance of showing different viewpoints, struggles, and accomplishments cannot be understated. We may never know the impact on a child who is reluctant to wear their hearing aid, seeing Hawkeye, a superhero, wearing his. Without that representation, that child might have been so affected by the stigma of wearing a hearing aid that they miss out on the countless benefits of amplification.

The stigma surrounding hearing aids only hurts the patients that would benefit from the solution and we know that every day, month, and year that passes has an impact. What could those years mean when we know the deleterious impact of untreated hearing loss on many chronic health conditions like cognitive decline, diabetes, heart disease, risk of falling, and more. A recent study from the University of Oxford found that hearing loss may increase the risk of dementia up to 91 percent. Data from the Lancet Commission named hearing loss as the #1 modifiable risk factor to prevent dementia if treated in midlife (45-65 years).

The onus has been on us, as a profession and industry, to change the perception of hearing devices. Millions of dollars have been pumped into research and development, to not just make the devices look appealing, but continuously improve sound quality and include differentiating features and app experiences. The industry has come so far in technological advances, yet people still wait an average of four to five years to get their hearing evaluated and sometimes an additional six years to seek treatment. Changing the stigma around hearing loss and hearing aids doesn't necessarily mean that we should make hearing aids as small and invisible as possible. The ultimate goal would be for a hearing aid to evolve from a "have-to-wear" device into a "want-to-have" solution. Maybe that will be a takeaway from the flood of Over the Counter (OTC) and amplification devices on the market today: hearing technology that you want to be visible. Speaking personally, and as a proud member of the Baby Boom generation, I can tell you that I am less stigmatized about hearing loss and hearing aids than my parents were, but I have higher expectations for the way that they help me hear better, and the way that they augment my overall health and well-being.

The industry is changing with more innovation and more companies entering the market as OTC hearing aids emerge as a new class of devices. Will new devices and companies mean less stigma? Or will perceptions from experiences with those devices mean the stigma increases? Time will tell. What I do know is: the power is in our hands to support the patients along this journey. Education and patience will be key as patients navigate the new pathways laid out before them.

What our profession and industry must *avoid* is a new stigma - a stigma that paints the professional as an option versus a necessity. We are poised to be the go-to professionals in this new age of hearing healthcare. Audiological skills cannot be found over the counter, nor in adding a hearing aid to your "cart". Similarly, as every audiologist knows, the initial hearing aid fitting is the starting

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Inclusion, *cont.*

As every audiologist knows, the initial hearing aid fitting is the starting point in the patient journey – not the finish line. Fitting a hearing aid is both a science and an art, and optimal patient outcomes are best achieved with a strong patient/professional relationship.

point in the patient journey – not the finish line. Fitting a hearing aid is both a science and an art, and optimal patient outcomes are best achieved with a strong patient/professional relationship. This will become apparent as more and more companies attempt to take our profession out of the equation. We must be the "source of truth" for our patients for the proper hearing healthcare treatment journey.

Huey Lewis had a good point when discussing his hearing aids: "Everybody used to worry about how they look. Nowadays, if you don't have two earbuds in your ear, you're not cool". Shark Tank's Daymond John recently posted on his social media urging people to get their hearing tested and seek treatment because "who cares what other people think! It's about your quality of life!". I hope more people with platforms like Huey and Daymond will continue to speak out about how better hearing has changed their lives. I hope their positive experience can accelerate even one person's better hearing journey. I encourage you to continue to ask your patients for positive testimonials to share as well; 72% of consumers say positive testimonials increase their trust in a business. Building trust with patients is paramount to getting the correct solution for their particular loss.

Changes in the marketplace can mean more opportunity to help patients. Improving accessibility and affordability will (hopefully) increase hearing aid adoption, and I hope it also brings more awareness to hearing loss and audiology and closes that gap between *knowing* you have a loss to *doing something* about it. Lastly, my expectation is that it will reduce the stigma. Through education and advocacy, we can do so much, which is where state academies like this come

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Coding Corner

No Surprises Act: Information and Resources

WIn 2021 Congress passed the No Surprises Act (NSA) as part of the Consolidated Appropriations Act. The No Surprises Act became effective 1 January 2022 and establishes new federal protections against surprise medical bills. Surprise medical bills arise when insured consumers inadvertently receive care from out-of-network hospitals or providers they did not choose.

The No Surprises Act covers all privately insured people in employer-sponsored and individual/family health plans. Medicare and Medicaid already protect enrollees against billing surprises. The No Surprises Act protects patients with insurance from surprise bills, holding them liable only for in-network cost sharing amounts. The No Surprises Act also enables uninsured patients to receive a good faith estimate of the cost of care.

For audiologists, the No Surprises Act:

1. Applies to you if you are an out-of-network provider
2. Requires a good faith estimate of costs for medical items or services for uninsured or self-paying individuals.
3. Applies to all healthcare providers and facilities operating under the scope of a state-issued license or certification. No specific specialties, types of services, or facilities are exempt.

If a patient does not have health insurance or does not plan to use insurance to pay for health care items or services, they should receive a good faith estimate of what they may be charged, before they receive the item or service. The good faith estimate is a notification that outlines an uninsured or self-pay patient's expected charges for a scheduled or requested item or service.

With any new law or regulation, it is important to clearly understand the impact and implications and how you and your practice must act to comply. Best practice is always to consult with your legal counsel to be sure your patient contracts and documents are accurate and in compliance with federal and state regulations. For more detailed information on the No Surprises Act, here are links to resources including helpful FAQs and Good Faith Estimate templates:

- Centers for Medicare and Medicaid Services (CMS)
- American Academy of Audiology (AAA)
- Academy of Doctors of Audiology (ADA) Note: must be a member to view webinar
- American Speech-Language-Hearing Association (ASHA)

Inclusion, *cont.*

in. Thank you for your endeavors to be the voice in the state of Minnesota for audiologists, and in turn, their patients.

As Chief Innovation Officer, Dave Fabry, Ph.D., leads end-to-end innovations within Starkey's clinical audiology department. Dave received his Ph.D. in hearing science from the University of Minnesota. Subsequently, he divided his career between academic/clinical roles at the Mayo Clinic, Walter Reed Army Medical Center, the University of Miami Medical Center, and several industry positions. He served as President and Board Member of the American Academy of Audiology and was recently elected to the Board of Directors of the American Auditory Society.

Additionally, Dave has served as editor-in-chief of Audiology Today *since 2008 and is a past Editor of the* American Journal of Audiology *and Section Editor of* Ear and Hearing. *He is licensed as an Audiologist in Minnesota, Florida, and Rwanda.*

MAA Seeks a Bookkeeper

The board of directors is seeking to contract with a bookkeeper to manage our financial record keeping on an ongoing, monthly basis. We're looking for an individual or small firm with experience in the world of non-profit organizations. Our goal is to have consistent financials and a source for best practices, while simplifying the role of the treasurer so that it is manageable for a volunteer.

If you know someone who might be a good fit, please contact MAA Administrator Dana Robb at administrator@minnesotaaudiology.org.

Gloria Gross Scholarship

The Gloria Gross scholarship application deadline is May 31, 2022. Scholarship applicants must be high school seniors with hearing loss and may be nominated by anyone who believes they are deserving.

Please spread the word so we can extend this fantastic opportunity to as many deaf or hard-of-hearing high school seniors as possible. For more information and to access the application, visit our website.

State Fair Volunteer Sign Up

Please consider signing up to volunteer for a shift at the State Fair 2022.

Give the gift of your time and expertise to raise awareness for audiology and help support early detection of hearing loss!

Register here for your volunteer shifts to join us at the...

MINNESOTA STATE FAIR

FDA Clinical Trial Studies the Effect of Cochlear Implantation on Asymmetric Hearing Loss or Single-Sided Deafness in Children

The Lions Children's Hearing & ENT Clinic at M Health Fairview (Minneapolis, MN) is participating in a multicenter longitudinal study to evaluate the effects of asymmetric hearing loss or single-sided deafness in children and the possibility of restoring hearing abilities through cochlear implantation. Dr. Jill Firszt, Washington University in St. Louis, is principal investigator of the NIH/NIDCD-funded clinical trial.

The study focuses on children who are 4 – 14 years of age. The poor ear (the ear to be implanted) has thresholds in the severe to profound hearing loss range. The better ear has thresholds in the mild to moderate range (for asymmetric hearing loss) or near normal range (for single-sided deafness).

Performance with an initial hearing aid trial, with conventional amplification or contralateral routing of signal (CROS), is compared to performance with a cochlear implant over time. Multiple test sessions evaluate speech understanding, sound localization, and quality of life.

Audiologists seeking more information about the clinical trial in Minnesota can contact study site PI Dr. Margaret Koeritzer at margaret.koeritzer@fairview.org or 612-365-8307. Clinical trial information is also available on www.ClinicalTrials.gov (NCT # 04793412).

UMAC 2022
Back in Real Life

Josie Helmbrecht, Au.D. and Jennifer Ward, Au.D.
UMAC 2022 Co-Chairs

Thank you to everyone—attendees, speakers, sponsors, and exhibitors—who adjusted to the new pandemic conference protocols and helped us make UMAC 2022 happen in person. It was really (read R.E.A.L.L.Y.) great to be able to experience the energy created when connecting with colleagues who have become friends while learning about the latest research and newest tools to keep us all at the top of our audiology game.

It truly takes a village or a whole academy to pull off this conference! It is a yearlong collaboration of committees, volunteers, sponsors, exhibitors, and MAA administrative staff.

- The Continuing Education Committee worked hard to find engaging and dynamic speakers to inform, inspire and push us to focus on evidence-based practice at a convenient and cozy venue.
- The Sponsorship Committee coordinated our exhibit hall experience. It was great to connect with our industry partners in person. MAA is so appreciative of the continued support of our sponsors and exhibitors. Special thanks to our *Platinum Sponsors:* Midwest Special Instruments, Oticon, and ReSound; *Gold Sponsors:* Cochlear, Phonak, and Starkey; *Silver Sponsors:* Amplifon, Cognivue, Signia, Warner Tech-Care, and Widex; and Bronze: Advanced Bionics.
- Membership Development Committee coordinated content and families for the honors and awards presentation.
- Audiology Awareness Committee organized the Gloria Gross Silent Auction (2022 was a best year yet).
- Communications and Publications Committee to help create awareness and excitement for our conference through our newsletter and MAA Facebook group.
- Our amazing administrator, Dana Robb, was onsite and you could feel the organization.
- Student volunteers helped with registration and State Fair sign up.

UMAC 2022 offered 10 CEUs, 7.5 CEUs were Tier 1 eligible. We had a great speaker line up:

- Dr. Lori Zitelli – Tinnitus and Decreased Sound Tolerance: Clinical Considerations & Research Updates
- Dr. Melissa Polonenko – Cochlear Implants and Single-Sided Deafness
- Dr. Kirsten Coverstone – Early Hearing Detection and Intervention Update
- Dr. Robert Lang – AmpCROS and Unilateral Hearing Loss
- Dr. Mark Schleiss – The Impact of Congenital Cytomegalovirus on Hearing and Development: New Concepts in Diagnosis and Management
- Dr. Tricia Nechodom – Cognitive Screening in Clinical Practice
- Dr. Heidi Hill – Audiology = Clinical Expertise Cognitive Screening & Suprathreshold Testing
- Dr. Elizabeth Walker – Children with Mild Hearing Loss: A Case of Clinical Equipoise
- Dr. Kris English – Addressing Healthcare Disparities with Professional Ethics and Cultural Humility

A lot of great conversations were had regarding new developments and what we can do differently for patients in the clinic on Monday morning.

The Friday evening President's Reception did not disappoint with the passing of the gavel from Dr. Ashley Hughes to Dr. Jason Leyendecker. Dr. Jennifer Ward was awarded the Outstanding Achievements in Audiology Award and Dr. Kerry Witherell was awarded the Honors of the Academy award. We thank them both for all they have contributed to our profession and our academy.

Something we retained from our virtual UMAC in 2021 was the online version of the Gloria Gross Silent Auction. It was great to see bidding between fellow UMAC attendees but also others who could not attend. There were so many items to choose from. Thank you to all who contributed items. We raised $6,400 was for support of students with hearing loss. Way to go MAA members!!

Please mark your calendar for UMAC 2023, February 24 & 25 at the Sheraton Hotel – Bloomington. Looking forward to another great opportunity to take our audiology skills to the next level!