Hearing Loss, Dementia and Auditory Wellness: Creating an Ethical Message that Resonates with Patients

Presenter: Barbara Weinstein, PhD; Brian Taylor, AuD

- Hello, and welcome to another Signia Podcast at AudiologyOnline. I'm Brian Taylor, and today we're going to tackle the topic of hearing loss, dementia, and auditory wellness. And with us today to discuss this important topic is Dr. Barbara Weinstein, who's a professor at the Graduate Center at the City University of New York. Dr. Weinstein, welcome to the podcast.

- Good to be with you again, Brian, and thank you for inviting me to participate in this important conversation.

- Yeah, it's been a couple of years since we've had you on, and I know that since then you and some of your colleagues in New York have published some really important articles on this broad topic of auditory wellness, dementia, mild cognitive impairment, and hearing loss. So a lot of things that I want to talk about with you, and I wanna start by asking you about this whole idea around the healthy aging movement. You hear an awful lot about healthy aging these days. What does it mean to age well, and what do you think the role is of audiology in this healthy aging movement?

- Well, I like to define healthy aging borrowing from the World Health Organization definition, just broad-based, healthy aging is the process of developing and maintaining functional ability that enables wellbeing in older age. And functional ability implies the ability to meet your own needs, to grow and make decisions, to be mobile, to build relationships, and to contribute to society. There are four pillars of healthy aging. One is to be physically, mentally, and emotionally well. And these would include prioritizing prevention, staying active, seeking out adventure, and social connectivity, and I think audiologists have an important role to play for at least three of those four pillars. So in terms of prioritizing prevention, I think audiologists really, whenever we test somebody's hearing and whenever we've completed the counseling, we should always mention the importance of protecting hearing.

And because we know that noise-induced hearing loss, occupational noise, and noise, for example, listening to music too loud, it does increase the probability that you'll even have an earlier onset of age-related hearing loss, and hearing protection really can make a difference. So we really need to prioritize prevention as part of every single counseling session. In terms of staying active, we know that hearing difficulty is related to physical activity. The more people perceive themselves to have hearing difficulty, the more they tend to kind of hold back on activity. And physical activity is very, very important in terms of lifestyle and longevity, and hearing is critical there. So we wanna make sure to connect hearing to remaining active, and when we counsel, give our patients some sort of an intervention, we wanna make sure that they remain active.

And that relates to social connectivity. Our social prescription for every patient that we see should be remaining engaged, and their hearing is critical to engagement. And engagement is critical to long life. So we have a responsibility to socially prescribe for healthy aging, and there's a lot we can talk about because we have an important role.

- Right, and I think we'll come back to this topic of healthy aging and auditory wellness maybe at the end of the conversation. I have a lot of things I wanna ask you, but I thought that would be a good topic to start with. What I wanted to do next was turn our attention to cognitive health and early detection of hearing loss. I know that there's been a lot written about hearing loss, that it's the largest potentially modifiable risk factor in relation to dementia. I know that "The Lancet," very esteemed British medical journal, there's been a couple of editions of this study saying basically 8 to 9% of the modifiable risk factors are related to hearing loss.

And I've also read that that relationship between hearing loss and dementia is complex and uncertain. I think I may have read that from something that you wrote, actually. If that's the case, that this relationship between hearing loss and dementia is complex

and uncertain, how should audiologists interpret the finding that hearing loss is the leading modifiable risk factor of dementia?

- So I think that there are many ways in which these findings impact audiologists and how hearing healthcare professionals should interpret the data. So first of all, accepting the fact that it's potentially, that's an important word, hearing loss is the largest potentially modifiable risk factor, I think it's a wake up call for audiologists. But we also have to be concerned about the messaging and who the messaging is going to, because a lot of our patients are gonna come in and say, "Well, the media is telling me that hearing aids are gonna prevent dementia, so I wanna get hearing aids." So we have to be prepared to answer that question because there's a lot of social media hype connecting hearing aids to protecting people against dementia, further stigmatizing, possibly, hearing loss, and further stigmatizing already stigmatized conditions such as dementia.

So we have to be savvy consumers of the literature and make sure we understand the methodology in all these articles which are claiming to make connections between hearing loss and dementia. So I think it's really, so the methodology is flawed in a lot of these studies where people are concluding that hearing loss is a treatable, potentially treatable condition, and that's why you should get hearing aids. So I think number one, not number one, number two, number three, audiologists must understand the neurocognitive trajectory, which ranges from normal aging related changes, to subjective cognitive complaints, to full-blown dementia. We're gonna be getting more and more referrals of people who might have dementia because of the media and because of this Lancet commission, so audiologists must really understand how to recognize when a patient presents in the clinic with behaviors associated with neurocognitive decline.

We must make sure our clinics are dementia-friendly, and we must know about the data on hearing aid use and feasibility of cochlear implant use in this population. And then, of course, we need to know what to say when our patients come to us asking for hearing aids because that will protect me from developing dementia. So I think we're gonna be seeing more patients, audiologists must know about the complexities of dementia, many different types of dementia, and there's a lot we need to learn before we can really say that we are authorities and we can be the cure-all for dementia. That's just not gonna happen.

- Exactly. And that leads me to another several questions I wanna follow up with you about. And let me start by just saying that you've, I think, published more than anyone else in our field on this relationship over the last few years, just in "The Hearing Review," "Hearing Journal," and other places. And one article that I really liked in particular was just earlier this year in January in "The Hearing Review." I think the title of it was something along the lines of Fundamentals of screening for mild cognitive impairment and/or dementia. And it's an excellent article, and it reminds me that all the articles we talk about today in this podcast are going to be in the notes that you can find.

Most of them are open access. You can click on the link and go right to the article in those notes if you want it. Anyway, I wanted to start by asking you a few questions about that article in the January 2023 "Hearing Review," because I think it gets at what you've already mentioned. And that is, first, can you maybe provide us with some insights on the difference between dementia and mild cognitive impairment?

- Sure. So let's just define dementia. Dementia is not really a disease. It's a term that describes symptoms which damage the brain. And it's really a syndrome of cognitive impairment that impacts memory, communication, cognitive abilities, reaction time, and when you have cognitive decline, that significantly interferes with the ability to

perform activities independently, that's the line between most mild cognitive impairment, mild neurocognitive disorder, and dementia or major neurocognitive disorder. So mild cognitive impairment, your memory and thinking can be affected, but everyday activities are not. But when cognitive decline gets to the point where you have memory loss, confusion, personality changes, and disability that interferes with performing activities of daily living, that's when dementia is diagnosed. So, and now we're using, physicians are using the term mild neurocognitive disorder to major neurocognitive disorder because they feel that there's a stigma associated with the use of the term dementia, but most people are still using the term dementia.

So for example, mild cognitive impairment mildly affects daily function, whereas dementia has a significant effect on functioning. Mild cognitive impairment might have minor difficulty concentrating, whereas with dementia, you have significant issues with concentration. Similarly, mild cognitive, slight difficulty following conversation; dementia, inability to hold meaningful conversations. Communication is affected significantly in both conditions, but in terms of dementia, much more so. And also their walking, there could be mobility issues with each, but with dementia, it's more that there's gonna be frequent falls, et cetera. So there's a fine line, and according to the literature, about 10 to 20% of people over 65 with mild cognitive impairment will develop dementia several years after the diagnosis. But there are a lot of people who are not diagnosed with dementia and mild cognitive impairment because primary care doctors do not feel comfortable with diagnosing the condition, just like they don't like to, they don't tend to pay attention to hearing loss and they undervalue hearing loss as well, so.

- Exactly. Well, let's get into the topic of screening for it in an audiology clinic. In this article that I referred to in the January issue of "Hearing Review," you made the somewhat provocative statement in that article that you do not endorse cognitive screening for asymptomatic adults to determine the presence of mild cognitive

impairment or dementia. I thought that was really interesting, and maybe if you could share with us what led you to that conclusion.

- Okay, so I can say that having... I've considered this a lot, and several years ago I was speaking in Australia and I did talk about audiologists' role in terms of screening, should we be asked to do it. And I thought that we need to have significant education in screening, and then once we get the education, we could possibly do it. I've changed my tune because, for example, Canada, the United States, and Brazil all have guidelines, geriatric guidelines, and they do not recommend cognitive screening for asymptomatic adults. So if for physicians, it's not recommended, then for sure, audiologists. For the most part, their perspective is that since they say that there are no effective treatments to prevent or cure dementia, but we should just recommend health-promoting lifestyle recommendations, and it's not necessarily to cognitively screen for that.

So, and dementia is exceedingly complex. There are multiple causes of dementia, Alzheimer's being the most prevalent cause of dementia, but you have Lewy body, you have vascular, you have frontotemporal, and there are different behaviors associated with this, performance on the screening tests will differ. And some of these screening tests are not gonna pick up some of the dementias, some of the problems that, for example, people with Lewy body might have, which is not as much memory as it is judgment and reaction time, et cetera. So we have to, if we're gonna do screening, we really have to have a strong education in understanding dementia, in understanding how to communicate with dementia, and in understanding what is entailed by picking up, by saying to somebody, "I wanna test your memory. I wanna see if you have a risk for dementia," because that's a whole conversation. It's fraught with major complexities, and audiologists do not have that...

- Well, I think about somebody who may come into your clinic, an older person, and then it seems like you're opening up a whole can of worms around something, and the risk of really scaring that person is greater than uncovering something that they may not have any idea about.

- Right. And a lot of times people with dementia are not aware of the fact that they have dementia, or do not, if they have been diagnosed, many times, they don't wanna admit to having the diagnosis. So what we have to be able to do is recognize certain behaviors when people come into our clinics, 'cause there are some red flags that should... And just starting from when your patient walks in, there are some things that we should take note of. And also our case history can include some questions which would possibly uncover something about people's cognitive health. So for example, if we've seen a patient over time and we notice changes in terms of word-finding, if we notice changes in terms of their ability to manipulate the hearing aids, if they seem to be asking for repetition and not remembering what we've told them in the past, if they come late for appointments, these are some signs or red flags of people having possibly some cognitive declines that we should be alert to.

And in our history, if we might wanna, it's important to ask about other than hearing. And because it's important that we ask about memory and it's important that we ask family members about how a memory, just because that's going to influence how we're gonna counsel people, for example, about hearing aid use. What I wanna emphasize is that it's really, really important for people older people it's really, really important that we have a family member present with them at the appointments, with people with dementia for sure, but we are not necessarily gonna know if somebody has cognitive impairment, so it's really, really important that we always have a family member there because they could be informants and can suggest behaviors that we might need to know in terms of when we're making recommendations and we're working with our patients.

- Yeah, and I'm glad you brought that up because I was gonna ask you about the role of the communication partner on all this. That would seem that that person is really important.

- Yeah, so I just wanna mention that Hooper, in a systematic review, she mentioned like probably the most important thing in terms of hearing aid success and in terms of facilitators and barriers to hearing aid success in this population is having a spouse that is well-versed in hearing aid use and could be supportive and helpful. And the family member is important in terms of making a decision. And we know from Singh's research with Kathy Pichora-Fuller, having a family member present is gonna increase the probability that somebody's gonna even purchase a hearing aid. So it's always important to have a family member present.

- Exactly. Exactly. And I wanted to ask you, since you mentioned already a few of these informal approaches to evaluating somebody's cognitive function, but in that article I keep mentioning from January, you do say that if a provider believes they possess the minimal competencies, and I believe in that article you provide a table that kind of outlines in bullet point form some of the minimal competencies, could you tell us a little bit, maybe share with us some of the formal screens that you do recommend people use if they feel that they're at the competency level to do that?

- Well, what I'm gonna say, I'm not gonna necessarily mention a screening test, but I'm gonna mention criteria for screening tests. So screening tests should be easy to administer. They should be reliable, they should be valid, and they should be inexpensive to administer. A lot of the cognitive... And they should not require significant training to administer. Now more and more of the cognitive tests, for example, the MoCA, for example, the mental status, MSQ I think it is, a lot of these

now you have to have training to be able to administer the MoCA. I think it's the MSQ that you have to pay for it.

I know that Cognivue now is promoting a screening platform which is exceedingly expensive, and it's not inexpensive to administer, and we shouldn't be charging patients a significant amount for any kind of cognitive screening. So it's important that we know about what the purpose of the screening is and make sure we pick a screening tool that has validity, reliability, inexpensive, and easy to administer. The only one I will mention that I've had experience with that I find helpful is the Mini-Cog. But again, I don't wanna recommend screening unless people have competencies and understanding about dementia, which is just...

- Yeah, fair enough. I think that's great advice. But, and that brings you back to this, you already kind of touched on it, observable behaviors that you notice during a case history, during a hearing test. To me that seems like a really straightforward way to kind of make observations about somebody's cognitive status. So maybe give us some examples of some observable behaviors that you may note in the clinic that might prompt a referral to primary care for a more elaborate evaluation.

- Okay. So that's a good question. And I think really if a patient, I have no problem asking, I think it's important that we ask about memory. If a patient says, for example, they have no memory problems and then the informant says they think they have memory problems; if a patient says they're not going out as much, they're kind of isolated; if you offer hearing assistance, for example, a pocket talker or increase audibility and you notice a change in kind of behavior in terms of, and you see that they're still being forgetful and not really responding accurately, I think that would be a reason enough to make the recommendation that they see their primary care doctor for further evaluation.

The other thing is, is that people that have normal audiograms but appear to still be complaining about mishearing, require you to get their attention when you're talking to them, that could be a sign that there is some processing problems and there could be something going on higher level. And difficulty expressing themselves, I think those would be reasons to make referral to the primary care doctor.

- Right, and if I could add, I think that's great advice. I think that what you're saying, really, it underscores the importance of having somebody that you can refer to that is an expert in this area, that routinely sees patients and does more formal evaluations. Wouldn't you agree?

- Yeah, you need to have a refer... If you're gonna be doing any kind of screening, if you're seeing people who do have some sort of cognitive issues, it's really important to have a referral network and resources to refer people to, 'cause that's really, really... And to connect people to the resources, 'cause that's gonna be really, really helpful. It's helpful for the patient and it's also helpful for the family member, 'cause there's a lot of caregiver burden associated with having difficulty communicating because of some sort of a cognitive impairment. So again, what's interesting is that sometimes there are gonna be people, and I have to emphasize this, there are gonna be people with normal hearing on the audiogram but are having difficulty processing, difficulty in noise, and we need to attend to those people as well. It's not only the audiogram that we have to look at. We have to listen to what they're describing in terms of processing and understanding and mishearing. So we have to go further than the audiogram.

- Exactly, and that's something that I want to circle back and ask you more about it towards the end of our conversation here. But while it's on top of my mind, you mentioned communication tips. Can you give us some more ideas around communication tips that an audiologist might be able to use when working with somebody who has cognitive decline?

- So, okay, so I'm gonna say one thing we should do is always increase audibility, maximize their ability to hear. So we should offer pocket talkers to non-hearing aid users. We should offer some sort of an accommodation when we're communicating with people that might have processing problems and audibility problems. Because by increasing the audibility, we're gonna reduce the listening effort, and that's gonna enable them to really understand us better. So it's kind of like using an aid for walking. I consider people with some, by increasing audibility, that's giving them an aid to communicating. So that's really, really important, 'cause listening effort is important, and we wanna reduce that by improving audibility. So whenever we're communicating, whenever we're offering counseling tips, we should maximize audibility.

Make sure to get the person's attention before speaking to them, and focus on what the person can do rather than what they cannot do. So sometimes you wanna, in terms of communication strategies, you can offer a couple of options, or in terms of hearing aids offer options and for them to help them make choices. You wanna also make sure to break down directions into simple steps. Making eye contact is critically important. We have to be flexible, because sometimes people with cognitive changes are going to be different from day to day, so we have to always be flexible, we always have to be positive, we always have to be encouraging. It's important to be patient-centered, and you wanna make sure to connect to the patient directly and not ignore the patient, because people with cognitive difficulties, while it may not seem that personhood matters, but respect for the person is really important.

And remember that the challenge of communication evolved so people, the further along on the trajectory communication mode is gonna change, but it's still important to communicate. So they may want to use more, you might wanna use more tactile, you want to maybe use multiple modalities for communicating, 'cause at some point using verbal is not gonna be priority, but gestures and touch are gonna be important.

- Right. No, that's good advice. I think that you mentioned pocket talkers, and that's a great tool to have in your bag. I think these days, though, you know, there's some really nice ALDs that are ear-level that people can use. I know even a smartphone app with wireless earbuds might be a possibility for some. But anyway, the point is I think there's a lot of options now when it comes to restoring audibility in that kind of quick-fix mode in the clinic if somebody's not wearing hearing aids.

- And I think it's also important, I mean, we should, I mean, we're not gonna get on this, but I just have an article, I think the paper coming up, a hearing journal, a hearing review just did a special issue on interprofessional collaboration, and I have a piece in that issue. But what's important is, in terms of... We should communicate with psychologists who are involved in neurocognitive evaluation and really underscore the importance of improving audibility whenever they're doing the diagnostic test. So not everybody, people are not gonna postpone doing a neurocognitive test until somebody's got a hearing loss, but they can just assume that people who are over 80 who are undergoing neurocognitive are gonna have hearing loss, so that we should suggest that they do improve audibility, either with some sort of an app or using some sort of a personal amplifier. I think that's really, really important.

- Yeah, I think that's really good advice, and it's easier than ever to do that, so why not? It's good to know.

- But yeah, and it's just an interesting thing when you think, I don't know, what do you think about that, Brian? Just like an aid to hearing, just like, I mean, when we're going to put a personal amplifier on, we're gonna give people a hearing aid, they're going hear better, it's gonna make it easier for them to communicate. We take it off, we're not fixing the hearing, we're not fixing their cognition, but we're making it easier to function. Is that...?

- Yeah, no. I think it's a great analogy. It's equivalent of having a cane, maybe.

- Yeah, it's like a kind of if we think of it as an aid to hearing, but we're not changing the... you know, we're improving audibility, which is important for function, but take... And one of my patients once said to me, "Barbara, you told me that my brain is gonna be better." He misunderstood me. "But my brain is not really better 'cause I'm wearing a hearing aid, 'cause I take my hearing aid off and I'm still..." I said, "When you take the hearing aid off, you're gonna have hearing loss." So it's just, we're not making... So people sometimes people don't understand.

- Well, I think the point you made earlier on this was auditory fatigue and listening effort. I think just lessening somebody's listening effort goes a long way towards helping them comprehend and focus on what you might have to say during the interaction.

- Right, and people with... my colleagues in the cognitive space, they say that people with dementia have a lot of listening effort issues. So in that case, especially this neurocognitive specialist that I spoke to, when I said to him, "It's really, really important to improve audibility to reduce the effort." And he said, "Well, that's so interesting, because a lot of our patients do fatigue because they're putting in so much effort to try to communicate." And that's a good point, that we can reduce some of that effort by upping the auditory system or upping the visual sense. We have to know that dual sensory impairment is common in this population, so we have to make sure to maximize vision and, of course, hearing.

- Hmm, exactly. I wanted to shift gears a little bit. There's an article that you co-authored with a few of your colleagues there in the New York City area that was published in February at the "Journal of the American Geriatric Society." And again,

people can go to the show notes to find the link to this article. But I thought it was really a thought-provoking piece, because it essentially said that we have to be extremely careful about how we message and market to patients this whole linkage between hearing loss and dementia. Could you share with us what you say in that article? I think it's a really important message to convey to our audience.

- So this paper grew out of the fact that one of my colleagues on the paper actually has a significant hearing loss, and she knows about the stigma of hearing loss. She's an MD and a PhD, and she was really concerned about the fact that now you're adding to the stigma of hearing loss the stigma of dementia. So the issue is that the negative messaging is really, is a problem, because negative messaging kind of inhibits people. So we should, instead of changing, trying to get people in through negative messaging associated with the stigma of hearing and dementia, we should do positive messaging, and talk about how, if you can hear better... We became audiologists to help people with hearing loss find help, not to scare them into submission.

So if we talk about the advantages of hearing better in terms of daily function, in terms of being able to think more better and to be able to have a better quality of life, then we could, I think maybe we'll be able to still get people in if we can say that hearing is better for your ability to remember, to think and learn, and the quality of life. So a positive messaging instead of scaring people. And I just recently presented at a conference in New York, and one of the people in the audience said that she had a patient, and the patient started yelling at her because she said, "I can't believe you're telling me that I have dementia and I should get hearing aids for dementia."

And the patient was just so, so upset, and she misunderstood the audiologist. 'Cause the audiologist said she wasn't trying to say that the hearing aids are going to prevent dementia, but the patient was very, very upset and did not appreciate the connection. And so I think we just have to do more positive messaging, because stigmatization is

going to inhibit people to act. And already people are inhibited in terms of taking care of their hearing. So again, basically we wanna talk about hearing, helping people hear better. It's better for brain health, because you're gonna be cognitively more engaged if you can hear and communicate better. So we are gonna, by helping people hear, they're gonna remain connected, and that's the most protective thing you could do in terms of preventing any kind of cognitive decline.

- So.

- Right, no I thought...

- That connection to isolation, I think the connection to isolation and engagement is really, really important, and that's part of that social prescription. I would just wanna add that my dissertation was on social isolation and hearing loss of the elderly, which I think you know. The third study that I ever did was on dementia and hearing loss. In those days there was no connection. We didn't know about the connection between social isolation, loneliness, and cognition. But now we know that being connected is just so important, and hearing is so important to connections.

- Right, and I think, but my takeaway from that article we've been talking about was the simple message, the positive message is really hear better, think better, rather than trying to use scare tactics to get people to come into the clinic. I thought that was a much more positive message, and I would encourage everybody to find that article, it's in the show notes, and read it. It's a short two or three-page article, and it's got a lot of great insights that you can use when you develop a patient engagement strategy, marketing strategy in your clinic.

- And then, you know, so my co-authors were so... This was published in JAGS, but they were concerned that audiologists were not gonna get the message through JAGS,

so we wrote the article for "The Hearing Journal," and it's coming out, another article to this effect's coming out in "The Hearing Journal" about changing the message.

- All right. That's something to look forward to. Great. The next article I want to ask you about is one that you were not an author on, but I'm sure that you have a take on it. And that's about, it was an article, actually there was a scientific peer-reviewed article, and then there was a shorter article in one of the trade journals, basically around the idea that hearing aids, the use of hearing aids for people that have dementia and cognitive impairment, mild cognitive impairment, is they use the term two-way street. And they say the association between hearing aid use and dementia goes in both directions. What do you think they mean by that? Or what's your take on that two-way street concept?

- So my biggest takeaway from that Naylor study was that we really have to understand where a patient is in terms of the dementia trajectory, because people who already have dementia and have a diagnosis of dementia, in their study, they did not do as well with hearing aids. There was not persistent use of hearing aids in a large portion of the people with dementia. So, and that relates to the Lancet study in terms of identifying people earlier in life, midlife, with hearing status. So people who already have dementia and they're not gonna do as well with hearing aids, and we have to think, find, and their conclusion was we have to offer more accessible interventions that people are going to be able to use.

And a lot of the devices that we have now are not necessarily dementia-friendly for people. So my takeaway is that early identification is really, really important. Just plopping a hearing aid on somebody who already has dementia, the success is going to be limited. But we know from the Hooper study is that there are facilitators and barriers when we're fitting people with hearing aids to help make sure that people who might develop dementia later on know how to succeed with hearing aids. So I guess

my, I think that the biggest thing is that there's individual variability in every single patient, and if somebody already has dementia and is an experienced hearing aid user, they're probably gonna do pretty well, because they have muscle memory for use of hearing aids.

But if we have somebody who's already has dementia and has not started using hearing aids, that's gonna be more problematic, and more accessible devices are gonna be relevant. And again, we need support of a caregiver to help with the process.

- Right, I mean, I think this whole two-way street concept is a strong case for earlier intervention and the availability of high-quality amplifiers, including OTCs getting amplification on someone sooner rather than later, because they have data to show that when you fit somebody with hearing aids that has dementia, they just aren't gonna wear them, or they're not gonna get very much use out of it. But another key point that they made in that article is they conclude that hearing aid use seems to have a protective effect against dementia, again, which is an argument for why hearing aids not only need to be accessible and affordable, but they have to be easy to use. So what can audiologists do to make amplifiers not only more accessible and affordable but also easier to use?

- Audiologists? I'm not sure that audiologists can do, but the manufacturers could possibly...

- Manufacturers. Well, audiologists in manufacturing, maybe.

- Yeah, well, I think with the manufacturers, they're doing, you know, a lot of sophisticated signal processing and making the technology smaller and smaller, which is less accessible to people who need the technology, and so one size does not fit all. So it's important that we have an array of devices available. So bigger may be better

for certain people. And, you know, I know I did a study of individuals, this was a long time ago, people in the senior citizen center. They were well-to-do people. They all had hearing aids, and many of them said the hearing aids are just not helping them in noise as much as they should. And they said, "I don't care how big the hearing aid is.

I just wanna be able to function in a noisy environment. I just wanna be able to use the technology." So I think we just have to have just a variety of devices available to allow for the people, this increasing population of people who are gonna have dexterity problems, who have visual problems, but want to use technology and need to use technology and needed to use it independently, but we have to design it for that population as well. Smaller for some is better, but small... We shouldn't be hiding hearing. we shouldn't hide the hearing loss, and we should make those hearing aids appropriate for the population much more accessible, hearing devices.

- Simplicity.

- I think so.

- Simplicity is the name of the game with this population, no doubt about it. And my take on this is don't rely on the mainstream manufacturers necessarily to bring you the tool that you might need. There's nothing wrong with finding a high-quality amplifier, non-custom amplifier. You can go to a place like Oaktree Products and find some of those. I think the key is, as an audiologist, you have the ability to vet these products and find ones that might be simpler to use, that would be really effective on somebody that has been diagnosed with dementia.

- Yeah, and on that point, what's interesting is that we recently, we did publish a study. We did a study, we have a grant from the VA where we're in emergency departments. We started in New York and now we're expanding it out to Colorado and Texas or

whatever. And basically what we're doing is we're going into the emergency departments and we're providing individuals screening for hearing difficulty, and we're providing the veterans who all get hearing aids, fantastic hearing aids from the VA, but they don't bring the hearing aids into the emergency department because maybe they're rushed or they're afraid they're gonna lose it. And we're giving them personal amplifiers, and it's making such a difference in terms of how they relate to the physicians in the emergency department.

And it's also making a difference in terms of adherence to recommendations. So it's really, so we need to communicate, even with, if you're working in a hospital, it's important that we say, you know, on an intake, in an emergency department, we should be providing these accessible devices. Just like, you always, if you need a walker, if you need an interpreter, you can get it. So when people are in an emergency department, they leave with a walker if they can, or they're aided with, given a cane. We should make sure that these different entry points into, for example, hospitals, they're using these devices, because most people with hearing loss don't have hearing aids, but many people who are older need to be able to hear better. So I think we have to get out there and get the word out that there are a lot of different ways to help improve communication.

- Exactly. Yeah. I mean we should be grateful we live in an age where electronics are, there's a wide range of options that are easier to use, and we should embrace the fact that we have a lot of different ways that we can connect amplifiers to the person that needs them, so.

- And can I just add one other, I just wanna add one other point.

- Yes, please.

- You know, we know that combining vision and hearing is really, really important. And I'm consulting with a company, a mobile captioning company, and we just did a study on the value, whether or not captioning with a mobile phone is helpful to people with significant difficulty. And what we found is that just by recommending a mobile captioning service software, it's amazing what a difference it's made in people's lives. So we should be recommending to all our patients that a lot of times landlines, we have the captioning, but now there's software for captioning with mobile phones, and I think it's smartphones, and I think it's important that we add that to our recommendations for people, 'cause it really is making a difference in terms of keeping connected, people staying connected, helping them communicate better with physicians. So that's another recommendation that we should make in addition to personal amplifiers, the use of mobile captioning on the smartphones. I think it's really important.

- Right, and I know there's at least a half dozen of those apps that you can download. Some of them are free, others I think there's a monthly subscription.

- But a lot of them are free if you're Medicare-eligible, and there's no violation of HIPAA, either, so I highly recommend that people think about that. And these people that that we survey for this captioning, most audiologists did not recommend it. They found out about it from other sources. So we need to kind of think about that as well.

- Good advice. Let me, I wanted to ask you, you mentioned the VA a minute ago, and that reminded me there are some audiologists in the VA that really have gravitated towards this concept of the five M's. and I know you've written about, yeah, so...

- I didn't. That's good to know.

- Yeah, no I know there's in the Denver VA, I know they talk an awful lot about the five M's, and I know that's something that I think they found out about it through an article you wrote a few years back on it. So tell us what this five M's strategy is and how somebody might be able to implement this in their clinic.

- So the five M's, kind of this is in geriatric medicine, there are things that we must, as people who work with older adults, we must be aware of what's important to people, and the mind, mobility, multi-complexity, and what matters most are really what's important in terms of working with the population of older adults. And in terms of, I related it to age-related hearing loss, 'cause each of these M's relate. So we know that hearing loss is associated with frailty, with depression, social emotional loneliness, or relating to the mind. So by promoting hearing we can help in terms of brain health. We also know about the connection, well, medication is another one. I forgot. That was the fifth M.

But hearing loss is associated with falls, so we wanna make sure that people who assess individuals for mobility issues, we wanna make sure that the hearing is assessed, because hearing loss is a risk factor for falls. And most times when you look at risk factors for falls, hearing loss is not mentioned. And the literature suggests that hearing loss is associated with falls, and people with cognitive are increased likelihood of falling. Medications, difficulty hearing, especially when you're getting directions from a physician who's wearing a mask, hearing loss is gonna affect medication adherence and accessibility of medical information. So we must make sure that we communicate with our patients that they tell their doctors, "Listen, I have a hearing loss.

This is how you have to communicate with me, especially to promote adherence. Please write down what you're recommending for my prescription to make sure I understand it." So for example, so hearing is related to medication adherence, and we have to make sure that our patients are advocates for themselves. Multi-complexity,

hearing loss impacts brain structure and function, and therefore we can... many of the morbidities associated with aging, cerebral vascular disease, depression, frailty, hearing is a factor, so up the hearing for that population. And then what matters most, hearing has a negative impact on provider-patient communication, so we must make sure that our patients, again, advocate for themselves. And people with difficulty hearing are less activated, meaning they don't take responsibility for their own health.

So we really want to make sure that we tell our patients to advocate for themselves, and when they go see their physicians, we wanna make sure that they tell the doctor how to communicate with them, and that they have a hearing loss, because hearing loss does impact patient-provider communication, and what matters most, communication is so important, so those are the five M's that relate, I think, to hearing.

- Yeah, and what I love about the five M strategy is it reminds people in an easy way to be holistic about how they approach each person. And I really particularly love the matters most, because I think of somebody, especially, you know, you take somebody who might have cognitive decline or dementia that comes into your clinic, rather than try to come up with a series of goals for that person, just simply ask them what matters most to you in your daily life, and that becomes sort of the strategy on how you're gonna help that person hear better.

- So that's such an interesting... That's a great point. That's an interesting point. That's something that we should probably, part of our intake should probably, like, "What made you come in and what matters most?" I guess the COSI kind of gets at that, the situations that are most important. But it would be really interesting just to ask, and what matters most to most people, what's bringing them in is they wanna be able to communicate with family members.

- Exactly.

- Television, understand television viewing is a big one, and difficulty in noise. So that's really interesting, just to ask people before, you know, when they're here, "Why are you here? What matters most to you?"

- Exactly. I think it's easy way to approach them about how you're gonna help them.

- And that's patient-centric. That's like, that's how we can be person-centric, which is important for audiologists, important when you're working with people with hearing and cognitive decline. Audiologists say that they're person-centered, but I'm not so sure that they appreciate what that means.

- I agree with you on that, and I think that five M's approach is a way to try to get grounded around the patient-centered approach. Anyway, I wanted to go full-circle. We started the conversation by talking about auditory wellness, and I wanted to kind of go back to that since you're one of the co-creators of the Hearing Handicap Inventory. There's several of those out there now, different versions of it. And I know that you and Larry Humes, a couple of years ago wrote about maybe we should be measuring and looking at auditory wellness and not looking at the pure-tone audiogram and hearing loss on it. So let's end the conversation, Barbara, by talking about auditory wellness, how you might be able to use one version of the HHI scales. What are your thoughts on that?

- So this kind of relates to this whole metric approach that Frank Olin first discussed. So he wrote that we need a universal metric that's going to be meaningful to patients. And that way everybody could be talking on the same level in terms of hearing. And he advocated for the use of the audiogram metric, the PTA, the 4-frequency Pure Tone Average. We took, not offense, but our interpretation was different, and it relates to the OTC rule, which is that it's people with mild to moderate perceived hearing difficulty,

which just says that you don't have to necessarily see an audiologist, although it's important to see an audiologist, but it's about the perception of how you're functioning with your hearing that really is gonna be critical in terms of uptake.

And that's what's clinically meaningful in terms of uptake and outcomes with hearing aids. So if we have people self-assess their degree of difficulty communicating, that's gonna be what's gonna motivate them. If they perceive a need, that's what's gonna drive their uptake and the decision to pursue some sort of a hearing intervention. So from a health theory perspective, the perceived experience of one's health is a determinant of activation and health behavior. So, and perceived auditory wellness is what we think should be the driver. And, in fact, the BHI, and I think even HLAA, they're posting the auditory wellness, the HHI on their websites. And what they found, especially the BHI group, is that there are so many, so many people who are responding, who are completing this auditory wellness, the HHI, And many of the people are not using hearing aids, and they have hearing difficulty.

But many of the respondents on the HHI actually did continue to have hearing difficulty and are using hearing aids. So by monitoring people in terms of their auditory wellness, how they perceive the problem, we can get more people in, and then we can also help modify any instruments they have to make sure that we're maximizing their auditory wellness. So, I mean, in health behavior, a social determinant of activation is how people perceive a problem they're having. So that's why we... So I've been advocating for self-report since 1980, and I was pleased that, it took a long time, but somebody at the level of Larry Humes and Judy Dubno are also now proponents of the importance of perception of auditory wellness and perception of difficulties as a driver, and it's very very important.

- The beauty of the HHI, you could administer the screening version, which is only 10 questions. And if I'm correct, you and your colleagues say that that is as useful as the longer version

- Yeah.

- in your clinic.

- So, but for screening and for identifying perceived difficulty in auditory wellness, the screening version is perfectly fine. But in terms of outcomes, in terms of maximizing function, for example, once people get a hearing aid or cochlear implant, if you go through all those questions, you're gonna find areas where people are not doing as well and you can make adjustments, and we can do some more social prescriptions in terms of upping their auditory wellness. So I keep mentioning social prescriptions, and I mean by that is that we should use data logging, we should monitor how active people are, we should continue and advocate for lifestyle changes to help make sure people are active, are going out, are communicating in a variety of different situations, thanks to the fact that they've done something for their hearing.

- Well, I think I said at the beginning this was gonna be a wide-ranging conversation, and I think it really was. So I think this is a good time to conclude. Barbara, thank you so much for your time and your expertise. You're a real pioneer in our profession, and we appreciate you taking the time outta your day to be with us.

- Thank you. Always a pleasure, and I love the fact that you're so up to date with all the literature, and just an avid reader of the literature, as I am as well. And hopefully more and more young audiologists are as well.

- Well, we can only hope. Thanks, Barbara.

- Okay.

- All right.