SoundBites Podcast Transcript

Episode: Decoding the ACHIEVE Study: A Revelation in Hearing Loss Intervention

Dr. Dave Fabry:

Welcome to a special edition of Starkey Sound Bites Podcast. Joining me today is Doctor Jamie Hand. We're going to talk a little bit about what's been on everyone's mind, and it's been a long time coming, the initial results of the ACHIEVE study. ACHIEVE stands for the Aging and Cognitive Health Evaluation in Elders study. That's a three-year longitudinal prospective study that looks at whether we can finally speak to whether or not untreated hearing loss and cognitive decline, whether there's a correlation or maybe whether there's a causative effect. Jamie, thank you for joining us today.

Dr. Jamie Hand:

Yeah. Happy to be here. Thanks for having me.

Dr. Dave Fabry:

Yeah. Well, what were your impressions when you saw this? I will admit, I was traveling earlier this week, and I stayed up to see the live broadcast because, potentially, this really helps us shorten the delay for individuals who are on the fence and considering amplification.

Dr. Jamie Hand:

Absolutely. I'm not a night owl, but I did wake up at 6:00 a.m., and the first thing I did was rollover in bed and refresh the ACHIEVE study site and read the abstract. I think a lot of hearing professionals will agree with me. My first read, I went, "Oh. Oh." But then, looking further into it, which I know you'll dive into a little more, of that more unhealthy, as we might say, group, really showing that, I mean, that is the big nugget to take from this that I think we can really use to educate our patients on.

Dr. Dave Fabry:

Yeah. I think you make a great point. Number one, when people read the headline and they see that the overall effect of this nearly 1,000 patients, participants in this study that were followed over a three-year period, that taken in total, use of amplification did not show that it helped slow the progression of cognitive decline. I know that was the initial gut punch. But as you said, and during the presentation,

Doctor Lin, who presented as the lead author, lead investigator on this multicenter study, said that was the initial bad news. But then, when they dug in a little deeper, they had enough subjects, with 970-some subjects, that it eclipses any other study that's looked at this relationship.

And it's not just a meta analysis. This was a prospective study where they matched two groups in terms of their ages, and they either did a control, where some were were not fitted with amplification, but still received some meetings over the time as they would, and then the other that were professionally fit. These were prescriptively fitted devices followed by a hearing care professional, over that three-year period. When they broke it down into the subgroups, they had one portion that was what they called the de novo subject population. That's subjects that were recruited by newspaper ad or TV or online. Now, the other group that had been participating in their group is called ARIC, the Atherosclerosis Risk in Communities group. Four different locations around the country. These individuals had been enrolled since the '80s and been followed-

Dr. Jamie Hand:

Yeah. That was incredible.

Dr. Dave Fabry:

... and tracked over time. What they found when they broke out that group, from the larger de novo group, that was just anyone who met the age requirements and fit into that category, they did find a rather significant and substantial 48% reduction in cognitive decline versus those who were in the control group. So that's something we should be celebrating because we at Starkey, we've been talking about the importance of comorbidities, and hearing loss and hearing care is healthcare. This is something that I think we really have the opportunity to dig in a little bit.

Dr. Jamie Hand:

Absolutely. I think that's where a lot of hearing professionals can really build their muscles in clinic and really practice incorporating those comorbidities, what we've been talking about, like you said, for years, and how to have that conversation with patients in clinic. We are talking about the ears, but we know now. There's so many studies that point to this same thing. We have the data. Why not talk about it with patients? I really think it starts with your patient intake form. At any doctor appointment I go to, I have a huge checklist where I have to mark not only what I've experienced in my health, but my parents, my grandparents, et cetera, and really not picking up the 200-point checklist from a doctor, but especially looking at the 2020 Lancet report, at their nice little infographic, and looking at the risk factors of dementia, incorporating those into your intake form. Which of these do you have?

As we know, there's likely never going to be a clear study that says, "Yes, hearing loss, dementia." There's so many other factors people have throughout their entire life, their family history, et cetera, that build towards cognitive decline. So if we can now identify in clinic, now we know if you have risk factors for dementia, you can identify that in the intake form, in the case history, and then use that conversation to say, "You may be at an increased risk. I want you to know hearing loss as well adds to

that. That's why we're here today. We're going to look at your hearing and discuss treatment options if you do indeed have a hearing loss."

Dr. Dave Fabry:

Well, let's build on that discussion. There's a lot of great points in there. When I was working at Mayo Clinic, I had close relationships with many of the cardiologists there. In the aging individual, many cardiologists will say that the ear is the overall best barometer of cardiovascular health because when you think about that microvascular feed to the ears and to the eyes, that's one of the reasons. One of the oldest studies that we know looking at comorbidity before, even predating cognition, was cardiovascular and hearing loss, and diabetes, risk of stroke, high blood pressure. All of those have a strong comorbidity with hearing loss. So let's look at, then, that ARIC subgroup, the group that had atherosclerosis, cardiovascular disease? What issues, to your point of what could professionals consider having the discussion, or having a checklist with their patients, knowing now that this dataset suggests that that subject population who was a little bit older and the demographics differed slightly.

The locations for the ARIC group were in North Carolina, Mississippi, Minnesota, and Missouri. No. Maryland, excuse me. Compared with the overall de novo cohort, this group was a little less educated. They were a little bit older, a little bit more ethnically diverse. A higher percentage of Black population in that ARIC group. But then, getting to some of the conditions and the comorbidities you mentioned, they had diabetes at a higher risk. They were measured, and their diabetes in a significant portion of that population, hypertension. They were more likely to be living alone. That we'll come back to, too, because there's some important findings in there, and a little bit lower household income than in the overall de novo group. But I think in particular, at least having the conversation about whether there's cardiovascular disease, including some of those sub conditions, and hearing loss present, now shows that those individuals, if fitted and doing it sooner, may be related to that reduction. Hearing aids are not going to cure dementia or Alzheimer's.

Dr. Jamie Hand:

Exactly.

Dr. Dave Fabry:

But if they can slow that progression, and seeing a 48% decline compared to the control group, in that subgroup who had cardiovascular disease, hearing loss, and were fitted with devices, is pretty powerful.

Dr. Jamie Hand:

Yeah. It's incredible. I mean, thinking of it as a public health message as well, the financial burden, not just on that individual, on their family, but on our economy, of treating dementia, cognitive decline, all of that, it's estimated to be almost $50,000 a year to care for somebody with cognitive decline, versus hearing aids that we all know is a range of investments every few years, pales in comparison to that. So if we can continue to build on this body of work that's continued to pile up and encourage our public health space to treat hearing loss a little easier through a variety of opportunities, I think, is incredible.

Dr. Dave Fabry:

Yeah. For me, I spent my career, which now spans 40 years, in this industry, wishing that hearing loss would be taken seriously by primary care physicians, by the community at large, and raising awareness for the importance of healthy hearing. Well, now we've had this drop in our lap. Really, the comorbidity piece is one that we can say, and clinicians can really say, "Let's emphasize this patient population as one that can significantly benefit from the use of amplification to slow that progression compared with untreated hearing loss." Anything that shortens that seven- to 10-year time period is a big win for us. We should recognize that.

The other issue that you raised, the Lancet study, not the most current one, but the one where they did the meta-analysis, showed that modifiable risk factors in isolation, hearing loss was the most significant contributor to those modifiable risk factors in midlife. The other thing is, even for that larger cohort, the 1,000 subjects, in the study that Doctor Lynn reported on, and also in the ACHIEVE study publication in Lancet this month, that is available free to individuals. You just have to register, but you don't have to subscribe. I would encourage people to go and read the study for themselves. But they noted they had no adverse effects of fitting people with amplification.

There's no harm in fitting the larger population because the caveat and the little ray of hope for that larger population was, even in the entire subject population, they're postulating that they may see those declines in the larger population and the differences, rather, between the control group and those fitted with amplification. It's just saying that maybe three years wasn't enough to study them. They were a little younger. The overall population may see that decline occur, but we should not be hanging our heads with these findings. We should be celebrating them.

Dr. Jamie Hand:

Well, you brought it up earlier, the isolation part of it. I mean, the US Surgeon General now has said, "We have an epidemic of social isolation," in especially our older adults and how that is a huge compounding factor for a cognitive decline. Are we asking patients in clinic what their social activities are? Who do they live with? How often are you getting out of your house? Those kinds of questions are really important, not just for cognitive decline, but our treatment of the hearing loss as well. Why aren't we talking about that before the treatment, again, just at that first appointment, and getting that information for every patient?

Dr. Dave Fabry:

I'm really glad you brought up that loneliness piece. Two other tidbits. In the presentation, Doctor Lynn talked about the fact that, in the study, 94% of the patients who participated agreed that hearing aids were, quote, "very much worth it" or "quite a lot worth it" after three years.

Dr. Jamie Hand:

Wow.

Dr. Dave Fabry:

That's impressive. That's consistent, and even exceeds satisfaction with what we're seeing reported in the market track series of data. 94% that were in those top two categories. The other thing, as you alluded, hearing loss intervention has a statistically significant positive effect on reduced loneliness over three years, in terms of social network size and in terms of social network diversity. Those are areas we can really sink our teeth into and really emphasize, as you said, with the Surgeon General raising awareness for this and the fact that we know, and we've seen other studies highlight this. But this is a large study population to have that positive of patients saying that the hearing aids are very much worth it or quite a lot worth it after three years of wearing them, and then this loneliness piece.

Dr. Jamie Hand:

Yeah, I missed that part. That's a great call out. That's really encouraging. I mean, I think with the Surgeon General, I was just reading that report again this morning. It's not just dementia that loneliness contributes to. It's heart disease. It's stroke. What is it? A pack-a-day habit is the same as social isolation.

Dr. Dave Fabry:

Sitting is the new smoking. Yeah.

Dr. Jamie Hand:

Yes. I think some healthcare professionals, hearing healthcare professionals, excuse me, are hesitant to discuss this because they don't feel like that is within our scope. The ears are our scope. We shouldn't talk about anything outside of that. To that, I mean, my dentist, what they bring up to me about cardiovascular and cognitive help with my teeth, I mean, we have got to use this data to encourage patients to seek help. It is our priority as hearing healthcare professionals, in my opinion.

Dr. Dave Fabry:

Well, I completely agree with you. If you're in a medical facility, if you're in a private practice, like I said, go to Lancet. Register. You can download this paper for free. I would use it as an opportunity to engage or initiate a conversation with my cardiology colleagues in my medical facility or in the community. Go out, share this with them, and say, look, "We are linked at the hip with cardiovascular disease and hearing loss. We have been, even longer than this issue over the focus of cognition."

My parents were more worried about cancer and cardiovascular disease. I'm concerned about cognition. Here we've been given a great opportunity to engage in more conversations. We have to think of the patient as a whole, not just a couple ears that we're doing real ear measurements on, but thinking about that patient's overall health and wellness, and really also thinking about that approach avoidance or avoidance conflict that first-time hearing aid users are dealing with. This now provides us with an

opportunity for those specifically who have cardiovascular risk factors to say, "Look, this study showed the sooner you intervene, the more likely that you're going to see a slowing of progression of cognitive decline." That's a powerful statement.

Dr. Jamie Hand:

Right. Having the conversation be a positive conversation, and before you've even tested a patient's hearing, so they don't feel like it's a fear factor, or you're saying, "You need to do this, or you will get dementia." Nobody's saying that. It's important to speak about it factually and make sure you have all of the conditions correct. But we do need to be discussing it with patients, to your point.

Dr. Dave Fabry:

Look, like you said, for the last decade when I've gone to see the dentist, they take my blood pressure. What is it that restricts us within our scope of practice for doing a screening blood pressure? These screening pressure monitors, I have one at home. They're low cost. They're accurate. There's nothing that would prevent us from saying, "Look, your blood pressure is a little high today. I'm not a physician, but you should consider talking to your primary care doctor or your cardiologist about that. By the way, did you know the results of the ACHIEVE study?"

Dr. Jamie Hand:

Exactly.

Dr. Dave Fabry:

There's lots of opportunity for those of us who are willing to think a little bit outside of the norm and the way that we've always done things, with the results of these studies, laying it out for us, those patients who are likely to most benefit from this. One of the things I was slightly disappointed in the study was that when the cohort started, they were wearing their devices. The median use every day was 10 hours a day. By the end of three years, only seven hours a day. I think we can do better than that.

Dr. Jamie Hand:

I agree.

Dr. Dave Fabry:

We're certainly seeing with Genesis, our latest product people, when I'm working with my patients, people are wearing 12, 14 hours a day or more. That, to me, was an awareness issue of, wow, just seven hours a day was considered successful. To me, that's half my day at best. When people say, "What's the best hearing aid?" I always say, "The ones that are worn." Seven hours a day is only a fraction of the day. I'd like to see follow-up more on that, too.

Dr. Jamie Hand:

I agree. I'm glad you pointed that out. It always reminds me of Starkey's Hear Share app, that is still the industry's only caregiver or companion app that you can actually check in on your loved one on how many hours a day they're wearing their hearing aid, as well as their physical and social activity. I mean, Starkey's been thinking about this many years-

Dr. Dave Fabry:

Right. A long time.

Dr. Jamie Hand:

... and providing tools to monitor this and have that discussion. So I think Genesis AI, Livio AI, Evolv AI, our devices that have had these sensors and this capability for years, are really going to be important for this new study realization.

Dr. Dave Fabry:

Completely agree. Closing, then, what are a couple take-home messages? We've talked about comorbidity, raising that. What's your thoughts on, I think, another potential winner out of the study as it's reported right now? This is really just the beginning. They cited that there's going to be other publications, further investigation of that de novo group, that larger, slightly younger population, to see if indeed, over time, they see the benefits of amplification as they continue to wear them. Other things? Other take-home messages in there that you saw?

Dr. Jamie Hand:

Really, just what I've discussed with how to implement this in just day-to-day practice of really looking at your intake form and making sure that you're discussing this with patients. I think that's of utmost priority. We have example ones at Starkey, of not only the health intake form, but some examples of questions of how to ask patients about their daily activity, if they live alone, if they live with other people, et cetera. If a hearing professional wants that, we can certainly provide it as an example to use in your own clinic.

Dr. Dave Fabry:

What about screening for mild cognitive impairment? There are pencil and paper measures. There are electronic measures. Again, I don't think it hurts. I think it helps bring the discussion into what can be a challenging conversation. Sometimes people are apprehensive about taking tests. Especially, like I said, boomers like me, we worry. We've spent more time in school than our parents did, and we worry about losing it. Sometimes people say, "I don't want to know." But I think, for me, what gets measured gets done. What's your attitude about screening? Have you done it when you were working clinically?

Dr. Jamie Hand:

I did not. But since then, I have taken the ones that are available. Even myself, as a 30-something-year-old female, that I think I have all my memory with me, I was nervous taking it. So I can't imagine an older adult. But I agree. I think it not only helps bridge the conversation with you and the patient, but helps bridge the conversation with you and other medical professionals in your community. Again, we're not there to tell them, "Oh, look, you have dementia." We're not there to give any diagnosis. But it is a great tool. To your point about blood pressure as well, these tools we can use to then report back to their primary care and say, "Hey, here's their blood pressure results. Here's their hearing test. By the way, here's the article on why I did that. Please send me any patients like this in the future."

Dr. Dave Fabry:

Completely agree. I think it's a great opportunity to reach out. The results overall from the ACHIEVE study add to this growing evidence as we discussed, that addressing modifiable risk factors for cognitive decline and dementia could be effective in reducing future global burden of dementia. As you said, in addition to recommending that people go download this latest article from Lancet, go back to look at the 2020 article. Look at those modifiable risk factors. Be familiar with them. Consider the conversation with the patient. Think beyond the ears. Even hearing and balance is something people don't think about. This is saying, "Get a little out of your comfort zone."

You're not expected to become fully versed on all cardiovascular disease. But most people know a little bit. Certainly, if they've been told that they have high blood pressure, that they have elevated cholesterol, that they have diabetes, they're aware of it. Open up that conversation. It can be a little uncomfortable at first, but when it becomes part of your routine, I think now we've been given evidence that there is benefit that we've been given in this study. I think it's only scratching the surface of what we're going to see in follow-up.

Dr. Jamie Hand:

Absolutely. Completely agree.

Dr. Dave Fabry:

Thanks for the discussion today. Thanks to our listeners and viewers of the Sound Bites Podcast. We appreciate you. Hopefully, this was helpful at unpacking a little bit of the data and the evidence basis in the study. There's going to be more that comes out of this. If you have other suggestions or ideas for how we deal with this topic or others, we encourage you to send an email to soundbites@starkey.com. We appreciate if you subscribe or like this podcast and share it with your friends, your networks, your colleagues, your family members who are concerned about cognitive decline. Thanks so much. We look forward to hearing and seeing you again soon.