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Listening Takes Practice: Removing Barriers to Auditory Skills Training

Presenters: Katherine Cardona, AuD, Nicole DaRocha

Hello everyone and thank you for joining us today for Listening Takes Practice Removing Barriers to Auditory Skills Training My name is Katie Cardona and I am a clinical trainer for Phonak US and I am joined by my Advanced Bionics colleague Nicole derocha, Senior Consumer Engagement Manager.

So here are those learning objectives for today. By the end of this course, you'll be able to describe why auditory skills training is an important offering in hearing healthcare. Identify the benefits of offering auditory skills training via online programs, and you'll be able to list digital auditory skills training tools available. So what are we going to go through today? Here's just a quick agenda.

We're going to start by what is auditory skills training and why is it needed? We'll talk about some of the evidence behind auditory skills training and how to incorporate it into practice. And then at the very end we will highlight Sonova's Hearing Success portal. So to get started, Advanced Bionics and Phonak are two of the brands within Synova's umbrella. Together, Phonak and AB can provide the hearing solutions needed to support your patients across their entire hearing journey, all the way from mild hearing loss to utilizing electrical stimulation with cochlear implants.

The launch of the Naida Link hearing aid in 2016 further strengthened this partnership by allowing patients using Advanced Bionics CI processors to have a compatible hearing aid for true bimodal processing. Along with our on ear devices, Phonak and Advanced Bionics patients can utilize other technology such as our proprietary Roger Microphones for that improved signal to noise ratio in difficult listening situations. With the strong Phonak and AB partnership, Sonova is here to support your patients throughout their whole hearing journey. So behind every hearing aid or cochlear implant is an individual looking for support and guidance along their hearing care journey. Hearing care providers are often the first point of contact and audiologists are ideally positioned to not just focus on the technology, but to connect patients to resources that address their personal communication goals.

Hearing loss challenges are not completely eliminated after fitting a hearing aid or cochlear implant. I want you to take a second and think about your caseload, maybe someone that you've seen today. How many of you have fit a hearing aid and that patient comes back for follow up and says they still struggle to hear in background noise. I know we've all seen that patient in our office and we've also likely counseled patients to not go to their most difficult listening environment the first day they get their devices. We know it takes time for the brain to learn to interpret a new and different signal.

Everyone starts the hearing journey seeking success and a life without limitations. Professionals and patients have a common goal. They want the best outcomes from a hearing aid or a cochlear implant. Beyond fitting hearing aid technology, how can we as providers address the whole patient?

Here at Synova, we believe that well hearing is well being and that providers should take on this holistic approach to care. There is a growing body of evidence showing that patients taking steps towards hearing well is linked to noticeable improvements in physical, cognitive and social emotional dimensions of well being. One simple way to lean into this approach is to include a listening practice for the best patient outcomes to be reached.

Amazing. Thanks, Katie. So my section is to talk about what is auditory skills and why is it needed? And I really love this topic. Thank you so much for taking the time to come into this session because it's something so close to my heart and sometimes we as audiologists don't always focus on this area.

So what is, what is auditory skill training? This is the classic term that we refer to in terms of training a brain with auditory skills. It is a component of rehabilitation. Of course, what comes part of rehabilitation are things like counseling, troubleshooting. But auditory skills training is that listening practice that we're talking about.

And the goal of that is to improve individuals with hearing loss to understand spoken language better. So we know that we don't hear with our ears. They are of course, super important and we as audiologists love our ears. The ears are the ones that are going to pick up the auditory signals, right? But it's the brain that picks up all of those little puzzle pieces of auditory signals that we're sending in and makes sense of it.

So that's how we understand language. The brain is the part that's doing the listening, that's putting those signals together and giving the whole picture. Of course, the better the signal coming in, the better the quality of the pictures of those puzzle pieces, the easier it is to build that puzzle. But it's something important that we should always remember. We hear with the brain and not with the ears.

And so I always use this analogy whenever I'm speaking to families or to individuals themselves about getting treatment with hearing devices. I use this analogy. And the analogy I use is that it's a lot like making a cake. You're going to choose your brand of manufacturers, hopefully Advanced Bionics and Phonak, but whichever brand you choose, the manufacturers are going to endeavor to give you the best quality ingredients to work with, right? And then you guys, you incredible audiologists, you're going to do the mapping, you're going to do all of the measurements, your audiogram, your speech perception test.

And this is like measuring just the right amount of grams of milk and the right amount of grams of butter, right? And we're going to get that recipe just right for the individual. Now, often in audiology, we stop here. We, we talk a lot about features, we talk a lot about, you know, the, the benefits of our different technologies. But that batter, that recipe that you made, the brain is the oven.

And the brain is going to take that delicious batter and turn it into a delicious, fluffy cake. Right? And I think it's important as a company, a manufacturer of cochlear implants speaking to you, that it doesn't matter how amazing we make our products, if we don't advise and really empower our patients with the

skills to help with that oven part of the process, we're just going to end up with tasty batter. So what's the research out there? Does auditory skill training work?

Yes, it definitely does. And I can show you this Glick and Sharma studies. Anything to do with Sharma, put an alert out on any of the journals that you're subscribed to, because she's doing such fantastic research out there. So what study you're looking at is cortical plasticity, and it was investigating those with normal hearing, typical hearing, those with hearing loss, and then what interventions we provided after hearing aids and auditory rehab if that made a difference in how the brain processes sound. So column A, you're seeing individuals with typical hearing receiving a visual stimulus.

Column B, you're seeing individuals with mild, moderate hearing loss, visual stimulus, right? So what's really interesting with the individuals with hearing loss, you'll see that, especially that middle image, the migration of visual stimulus being interpreted in the temporal lobe in the auditory centers of the brain. Now, that's really fascinating. It means that our brains are super plastic. If there's a part that's not receiving stimulation, brains are going to adapt.

And we hear, we know this, we hear this from our, our wearers and our patients saying things like, you know, I got much better at lip reading. My visual cues are much better since my hearing loss has deteriorated. So the next part of the study was those individuals with mild, moderate hearing loss, they were put on a program, an auditory skills training program, and they were given hearing aids. And six months post that intervention, visual stimulus is now being interpreted back into the occipital lobes, into the area of the brain that interpret vision. So the stuff that we do really works.

We're changing brains out there for children, it's the same. So again, the studies are looking at what, what makes for good cochlear implant wearers versus average and poor cochlear implant wearers in terms of speech and language outcomes. And the differences between good cochlear implant wearers versus poor is exactly this cross modal plasticity. So the outcomes of what you're doing with

your hearing intervention is definitely determined by the brain and that neuroplastic involvement of the brain relearning how to hear sound.

Now, what makes for good auditory skills training? What makes for good ovens? This triangle is Uber's triangle. It's really well established in all of our therapeutic interventions for auditory rehabilitationists and it focuses on the skill hierarchy of how we acquire rehabilitation to sound. So at the base of the triangle detection or awareness, sound is present, sound is absent.

The next part of the auditory skill hierarchy is discrimination. Is that a high pitched tone? A low pitched tone, a fast, slow tempo. Then we come to identification. So now we're can you perceive the difference between coins jangling or keys jangling?

So that becomes really nuanced. And then of course, at the top of the auditory skill hierarchy is then the comprehension, the understanding of ah, coins, I can buy money with that, Keys, I can open my front door with that. So this Urbis triangle has been prescribed into many different oral rehabilitation strategies. And we are still employing this triangle strategies in today into our auditory rehabilitation tools. So listening and spoken language AVT principles all focus on this type of hierarchy of skills.

Also, what makes for good ovens is the type of stimulus that you're using when you're doing auditory skill training. So this screenshot, I really love this image. And it's actually an artist's image of looking at an FMRI image of a brain. So you've cut the brain this way horizontally, and we're looking down and we're looking at the different parts of the brain and what is lighting up for different auditory stimuluses. So the first pick, you're seeing a brain at resting state and everything is quite quiet.

The hottest part of the brain is the occipital lobe. This is because we daydream and we daydream in pictures. Then the next picture you're seeing is a brain receiving language. Now as a speech therapist, I get super excited because left part of the brain is, is lit up and that hot spot there that you're seeing in

the middle is Broca's Area, the part Broca and Wernicke's area, the part that interprets language.

So and of course the frontal lobes, which are the parts of our brain that interpret things like sarcasm, humor, reading between the lines, all of our higher cognitive functions. Then this third picture is really fascinating. It's a human brain receiving the stimulation of music. Now something really fascinating happens with music. And what happens with music is that both right and left brain light up.

And particularly what's really interesting is that little yellow spot you're seeing right at the same center of the brain. And this yellow spot is our limbic system. It's our emotional processing area of the brain. Now humans, very interesting, are born with the ability to feel emotionally connected to music. We are born listening, knowing that's a happy tune or that's a sad tune.

And that's really interesting in terms of auditory stimulus tapping into that emotional processing part of the brain. It's also the part of the brain that converts short term memory into long term memory. So from a therapeutic point of view, amazing stuff is being done with music. And I'm sure you've seen things in strokes and dementia care that we're using music more and more for this cross modal plasticity. And if you combine music with language, in terms of your oral rehabilitation strategy, boom.

The last part of the last picture you're using is the brain lights up like a Christmas tree. So it gives us the most chance for cortical plasticity. So when you're thinking about advising your families and your wearers with hearing devices, think about the type of stimulation that they're using in their oral rehabilitation training. We know that hearing technology is not enough, right? So although auditory skill training is useful, we also need the hearing technology, right?

Because what goes in is what the brain is going to use. So having optimally aided hearing devices with auditory skill training there, you're going to get all of the puzzle pieces coming together. And I think that's what we want to emphasize today is that if you combine your therapeutic strategies, you're going

to have strengthened pathways for listening, language and cognitive development, top down strategies. So you're going to have that contextual queuing that patients will be able to fill in the gaps, which is particularly a useful skill when you're listening to speech and noise. And so having good technology with good auditory skill training, you're going to get the best of both worlds and give our wearers and our families the best opportunity to solve that puzzle piece.

And of course, auditory skill training is going to enhance practices like working memory, speed, all of that which we know is really important, especially for our aging population. I'm going to hand over now back to Katie. Thank you so much. I absolutely love that analogy, Nicole, and I'm probably a little biased because I am a baker myself, but we wouldn't be Sonova if we didn't talk about more of the research. While auditory training programs mentioned in the literature are very different, they differ in type, length, style and overall outcomes can't be generalized.

Overwhelmingly, the evidence suggests that auditory skills training is a beneficial intervention and many patients want to be in control of their hearing journey. And as they practice their listening abilities, their confidence when listening in social situations may increase. Not only that, when patients see that they're progressing in this auditory skills training, the activities, when they come more become complex, they become easier. That's going to have an impact on their confidence, their satisfaction and success. This increased satisfaction and confidence leads them to be more engaged in conversations.

I want you to think about what are some of the benefits you see in your clinic for auditory skills training.

By offering auditory skills training to your patients, you may strengthen clinical outcomes, facilitate adjustment to hearing devices, and improve quality of life. We're going to highlight some of the research focusing on all three of these pillars and we're going to start by strengthening clinical outcomes. So the results of a study by Olson et al. In 2013 shows that both new and experienced hearing hearing aid users benefit from auditory skills training to improve their ability to understand

speech in quiet and in noise. New hearing aid users were grouped into two separate groups, one that received training and one that did not receive auditory skills training.

The experienced hearing aid users all received auditory training and they were measured at baseline, two weeks and four weeks for the training groups and then at baseline and four weeks for the non training group. Overall, the results showed that both new and experienced users improved understanding of speech and noise, competing sentences and communication function after training. And this was in comparison to that control group. If you're going to be successful, why not just add the small little portion of the of the recipe? This next study by Whitten et al.

In 2017 also supports improved speech and noise scores. So the motivation for this work was really to determine whether this type of training transferred into real world communication challenges such as speech processing with competing talkers. Does that last sentence sound familiar? That's literally what our patients are coming into the office and talking about as a primary complaint. I can't hear when multiple people are talking and there's background noise.

Patients in this study were older 50 to 89 years of age. They all had mild to moderately severe binaural sensorineural hearing loss and they had all been wearing hearing aids bilaterally full time for at least six months. These patients were trained using tablet applications for about three and a half hours per week and this was over an eight week stretch. Participants were in two groups, so one received auditory skills training and the other subjects received an auditory working memory task. The results showed that auditory training provided more than three times the benefit of subjects hearing aids alone for speech processing in noisy conditions.

However, once that training stopped, the benefits did not persist, so this suggests that listening practice should be continual. Additionally, speech intelligibility was unchanged for the working memory group, but the subjects in the auditory training group could correctly identify 25% more words or spoken

sentences or digit sequences presented in high levels of background noise. If you want to look at DBSNR benefit, this 25% improvement is about 1 1/2 DB. SNR reduction in Speech and Noise Recognition thresholds.

Our last study focusing on clinical outcomes is from Kuchinsky and colleagues in 2014. This study looked not only at how accurately individuals discriminate speech but also how hard they had to work to do it. As clinicians we know that individuals not only struggle to understand speech and noise, they're also working a lot harder, so this is an increase in listening effort. In this study, the researchers looked at effectiveness of their speech perception training protocol by using word identification and then they looked at pupil response outcome measures to determine cognitive demands. Patients in this study had a mild to moderate hearing loss and were split into a training group and a control group.

The results showed that those who received training not only recognized more words in noise across varying SNRs, but there were changes in the timing of the people responses and that suggests that they were able to more rapidly discriminate speech from the background noise, showing less effort across all of the signal to noise ratios tested. Word recognition significantly improved for that training group and not the control group, as well as changes in the pupillary response indicating a change in cognitive demand. These results provide further evidence that benefits of the speech perception training protocol generalize to untrained listening conditions. This again gives us confidence that auditory training doesn't just help in controlled environments, but it translates to a real world environment.

Moving on to our next category, the following studies support auditory skills training, facilitating adjustment to technology and I think this is something that anyone is going to love hearing about. So this first study by Abrams et al. In 2015 looked at whether or not using online auditory training could improve speech and noise understanding and if the time spent in the training influenced post

intervention speech and noise understanding. So this was done with first time hearing aid users and they were randomly categorized into a training group and a control group where they only used hearing aids alone. Sentences and words and noise tests were administered at baseline and three weeks to both groups and the results showed that speech and noise understanding improved for both groups at the completion of the study.

However, there was not a statistically significant difference in post intervention improvement between the two groups. Although the number of hours the participants engaged in the training program was far fewer than expected. Time on tasks influenced post intervention words and noise, but not the hearing and noise tests.

Now what I find probably the most interesting of this study is something that the study wasn't even looking at. Specifically, it showed that daily hearing aid wear time declined in that group without auditory training, whereas the daily wear time didn't reduce in the auditory training group, suggesting that utilizing auditory training may be a factor in increased satisfaction, acceptance and compliance for those new hearing aid wearers.

Now, there are multiple studies that show that providing auditory skills training programs intensively and early on for both individuals with hearing aids and cochlear implants lead to improvement. Hearing handicap scores improved meaning individuals felt that the training program helped to lessen the problems that hearing loss caused and in the case of CIs, dramatically improved speech perception early on. So within the first three to nine months and continued through five years post implant, these recorded improvements followed. Participation in an AST program, especially early in the hearing journey, may help boost adoption of and satisfaction of that hearing aid technology. This shouldn't be something that we wait and offer only if someone is really struggling or they're dissatisfied with the hearing aids, but rather this is something we should both offer and encourage for all patients.

At the beginning we should set the expectation as providers that a device will not resolve all communication concerns.

Now looking at reduced return rates and this is a big area for anyone in practice. This was a clinical observation study in 2007 and they looked at 625 people who purchased a hearing aid over a six month period. They were offered the opportunity to participate in a software based auditory training program and they were given the option to do this program at home or in a lab. So out of those patients, 173 patients voluntarily participated in the auditory training program. So we can guess that these patients may already be more motivated to use hearing aids.

Out of this group, only six returned their devices for credit and that's a 3.5% return rate. The other 452 patients chose not to work in an auditory training program and the return rate for this group was much higher. 59 patients returned their hearing aids which is a 13.1% return rate. A similar study was conducted through cycle with 400 users who completed the full lace online protocol of 11 sessions. Return rate was just 1.5% amongst these users compared to 16% industry average.

They also noted that patients who completed this LACE training Program only required 4 follow up visits on average compared to users who did not participate that required an average of seven follow up visits.

Our last pillar here we're going to look at how auditory is Skills training can improve overall quality of life for our patients.

The World Report on Hearing states that the extent to which hearing loss impacts people's lives depends on whether it's addressed with effective clinical or rehabilitative interventions. Specifically, it states that auditory skills training helps people better use hearing technology in all situations. We know that auditory skills training may impact quality of life by improving communication confidence and

reducing limitations of daily living. A study by Rogers and Tomlinson looking at the use of sound success, which we'll talk about later, showed individuals reported feeling improved confidence after participating in an auditory skills training program, especially as they see progress in their training.

Think about this if rehabilitation is effective, it should be possible to measure improvements in being less limited by hearing loss or removing barriers to participation in life's activities. Auditory skills training may help people be better equipped to participate in their everyday lives, including social activities, family life, recreation, employment and education.

In summary, when looking at the research we can see that recommending innovative hearing technology is the first step towards hearing well. Offering auditory skills training resources to your patient completes this holistic approach to hearing health care, supporting the notion that well hearing is well being. If auditory skills training can improve listening and challenging environments, help reduce listening effort and improve understanding of a communication partner, it's overwhelmingly likely that this will improve their quality of life.

So now we know what it is and what the research says, but how do we practically apply this into our clinic? As a busy hearing healthcare professional, you may feel that you may not have the time or feel knowledgeable to incorporate auditory skills training into your practice.

A study from 2019 estimated that currently less than 10% of audiologists offer auditory skills training to their patients. Auditory skills training is often this missing piece in hearing health care.

I'm sure many clinicians have some answers to this question. What are the barriers to auditory skills training? We're going to take A look at some of the barriers that have been found in the research and then also how to combat some of them. Chrissy Ray and her colleagues at the Ohio State University surveyed about 60 hearing care professionals and identified four main barriers to providing

comprehensive AR services. First is reimbursement and cost.

That is going to be a big one for everybody. Number two, patient accessibility. Can the patients do these training programs? Number three, lack of evidence and no clearly defined standards. Now, I'm going to argue that this is no longer true based on all of the evidence that I presented and that Nicole presented earlier.

But perhaps it's possibly that providers aren't aware of the evidence. And number four, kind of tying into that professional awareness and training. So you guys are taking the first step by coming to this talk and learning about auditory skills training. But we need to get this to everyone else in the industry as well.

But what about barriers, barriers for patients? We can agree that auditory training is beneficial, but there are barriers to accessing a traditional adult programs including affordability. So how much is this going to cost the patient on top of their hearing aids? Distance to services, Are they able to go quickly? Lack of reimbursement, lack of access to qualified professionals.

And maybe it's a lack of a communication partner. When someone lives alone, there may not be a communication partner available to practice these listening activities. Considering 26% of Americans over the age of 65 live alone, this is a barrier for many.

I know we've primarily focused on adults, but some of the resources we'll discuss later can also be used for children. So let's just take a look at some of those barriers. For the pediatric population. We know that there are many barriers for children to receive auditory training and habilitation. It could be access or it could be the accessibility issues.

Lack of at home support, maybe lack of confidence by the parents. Maybe the providers are not familiar with auditory skills training. It's even possible that children do not qualify for services because of their degree of hearing loss.

Now, one solution to providing auditory skills training to your patients is to offer an online training program. Some early programs were designed to be offered in the clinic with live voice or using recorded stimuli. But more recently training programs have moved to web and app based designed to be independently driven by the patient with hearing loss. Some of the potential benefits it overcomes the obstacles cost patient accessibility and access. We know it's beneficial for these patients with hearing loss.

So getting it in their hands via an app is the easy way to do. Provides opportunities for to practice with communication skills independently without having to have a partner there. And it is self directed learning and that has the benefit of improving confidence, ownership and better outcomes overall.

So we know that auditory skills training via technology is proven if we look at healthcare trends in general in terms of online access to apps, people are empowered to actively participate in some form of enhancement or improvement to promote well being. And for those who are age 65 or older, living alone or they don't have a communication partner at home, it makes sense to offer this online training so they can use this independently. Online auditory training programs offer new opportunities and benefits for everyone to have the option for of improving their outcomes after receiving their hearing technology.

So now we're going to look at a couple of examples.

So I would be remiss to talk about auditory skills training and not mention LACE AI Pro. LACE is one of the industry leaders in auditory skills training and provides a lot of the basis of the research that we've

talked about today. Their website says it all. Hearing loss is easy to deny and hard to adjust to. I'm sure everyone feels that in their clinic.

No one ever wants to admit that their world is getting muffled or that they're feeling isolated when they can't follow conversations. LACE AI Pro helps patients hear with their brain, not just their ears. So building on what Nicole talked about earlier, if this is built on 20 plus years of knowledge and expertise and they are consistently adding new technology to help patients learn and stay engaged. Now, while LACE is not a free resource, there are several perks to becoming a partner with lace. The app is personalized to you and your clinic, so rather than advertising themselves, they're advertising you.

More importantly, they are continually researching and innovating. I had the opportunity to talk to some of the team from Lace AI from Neurotone at a recent conference and they mentioned that they want to get this into every clinic and this is because they know the benefits of auditory skills training. One of their newest features is called Voices and this is the of one. So cool and I love hearing about this. LACE users can train using the voices of their family and friends.

So think about that. Instead of listening to someone who is a professional talker, it's going to be a family member, a loved one, a friend, and the process is so easy. The family member in question is going to get a text, they record a 30 second script and then their voice becomes available for the training sessions. Now this isn't about making the training more engaging, even though it's a nice little perk, but the science behind it is truly Truly amazing. There are some studies that have been shown that just one week of training with familiar Voices can lead to a 10 to 15% increase in intelligibility.

That's a huge improvement in such a short period of time. And this is why Voices was built. When patients train with the voices that matter to them, they're not just practicing, they're rebuilding vital connections. So if you would like more information about Lace AI you want to visit their website, it is www.neurotone.com. now to get to the fun stuff.

I'm going to pass it over back to Nicole and we're going to talk about some of the options that Sonova has to offer.

Thanks, Katie. Woohoo. Okay. I feel like we're all converts of the oral rehabilitation and we can all preach to the benefits. And so I'm really excited to introduce you if you're not yet familiar with Hearing Success.

So Hearing Success is our free open source platform that we have made available to anyone that would like access. So it does not matter the brand or the type of hearing loss. Everyone is welcome to register for Hearing Success. It contains a whole load of useful tools, including some of the tools I'm going to show you today. And it can be something that's really beneficial for your wearers and that can individualize your your practice and differentiate you from other practices out there.

So depending on how you register, you will see certain pages. So if your families are, you know, for pediatrics, they will see the pediatric pages. If they are for cochlear implants, they'll see the pediatric cochlear implant pages. And if you are a professional, you will have your own dedicated page and be able to view all of the other pages on Hearing Success. So it's really tailored for those individuals going to through their different hearing journey.

What will you find in there? You'll find useful resources for understanding for learning about hearing loss as well as resources on things like Roger and technology. You'll find of course, the listening practice tools that we are now proponents of and there is also opportunity to connect. So from advanced bionic side, we have a thriving community. So if you do have any wearers that are going through the cochlear impond journey, they can connect with mentors that have been in their shoes.

So I'll give you guys just a moment to please scan the QR code because this QR code is going to take you directly to the Hearing Success page. But of course, if you don't get a chance now www.hearsuccess.com and register if you haven't registered before.

So in terms of the customized tools, of course we don't want adults to see the pediatric tools and vice versa. So when you do register, I will just mention this. If you register as a professional, please say that you are a professional because then you will see everything. If you register as a caregiver, then you might only see the pediatric tools. So that's the only caveat that I will mention in terms of this customization.

So for adults, what listening practice, what auditory skill training tools do we have? We've got our three main tools. It's word Success, musical atmospheres, and sound success, which Katie has mentioned. So I'll start off with word Success. Word success, you'll find the link in hearing success, but it's an app, so your families and wearers will be able to download it onto their mobile devices.

It's really working on, if you remember that auditory skill hierarchy, it's working on discrimination and identification skill sets. So similar, similar sounding words and then having them identify those minimal peer trackings. So here's a little video that I'm going to show you that you can see the app in action.

Click on the word main and the word house. Click on the word main and the word house.

Good stuff. Okay, so this gives you a little taste of what's the program. And of course it starts out easy and then it gets more and more difficult with minimal pairs becoming more difficult to identify, like cat and mat and tail and tail. So they have to really hear and listen for those nuanced differences. The other tool that's really, really useful is sound success.

Soundsuccess is a full, comprehensive auditory skill training tool. It follows that same skill hierarchy of identification all the way down to detection skill tasks. It's interactive and it involves written text, video and audition. So it's really looking at that top, bottom, top down and bottom up processing skills that we want to empower our wearers with. So when you log in, you'll see these two trails.

There's a getting started trail and an up and running trail. So the getting started trail starts really easy detection, like tasks where they're going to track with the auditory texts and with the audition in the background and the video background as well. What's also really nifty is that it's available. Sorry, I went too quick. It's available in multiple languages.

So if you have a look there on the top right hand corner, we have quite a few languages and we can say that we've added Now Arabic into our language skill set. So if you have users and families that speak multiple languages and want to practice their speech listening skills in their home language, they could have a look to see if it is available. So also nifty in soundsuccess is that you've got the video and you can also change speaker so there's always six different speakers. And my advice is always start with the speaker that you find easiest to listen to and then move up to more difficult speakers and you can be flexible with the program. So let's say you've got established hearing aid wearers that you're changing programs or adding a program.

They can switch the video off and they can add background noise filters. This was particularly useful post Covid. So when a lot of our teens and adults were going back into workforce, back into noisy environments and they were established hearing device users for a long time, they found this really useful. It's a safe way to practice speech in noise in their own homes in a very convenient way. So here's again a little quick video to show you sound success in action.

Sunshine is on the way on Tuesday.

There we go. So some really exciting tools and they are designed to be easy enough that if you just introduce them to your families and just show them quickly, okay, this is how you register, this is how you log in. This is where you get started. We've got loads of research that shows that our families and wearers feel confident that they can manage that auditory skill training program by themselves. Now, the other slide that I was showing you about the types of stimulation that you know will be effective for neurocortical plasticity music and advanced bionics.

Music is a heart passion of ours. We are really proponents of music is something that's beneficial for auditory skill training and beneficial for individuals going through the cochlear implant journey. But the same can be said for your hearing aid wearers. So for our adults, we've got a program called Musical Atmospheres and it works exactly the same on that auditory skill hierarchy, detection, all of those tasks, all the way to comprehension. But instead of using speech, we're using musical tracks.

So it starts from left to right. So you see when you open up the program, this is the page you'll see and you start in the green block, which is level one, just feeling the music and tapping into that nostalgia. And then as you go across the program, it gets more and more difficult where you start having to do discrimination tasks like the different types of guitar. Is that an electric guitar? Is that an acoustic Guitar and then they have to identify.

And then the top more difficult part, where there's identification of lyrics, where you have to use your comprehension skill sets. So I thought it'll be fun. Let's just do level one one of the tracks together. So this is track one and level one. It's not about identification.

This is a detection task. It wants you to imagine in your mind's eye what atmosphere this music is creating. What do you feel, what do you smell, what do you see visually in your mind's eye. So let's do this together.

Okay, so hopefully you heard that. And for those of you that are millennials and older, we know this is Pink Panther. Now, it's super fascinating because when I do groups with teenagers, they don't know who's Pink Panther, right? This is not of their generation. But when I ask them to describe what feeling the music is giving, they say things like, it feels like cheeky, happy, detective, sneaky.

Which is, of course, all of the things that this music is trying to listen. Pink Panther is a detective. So it's a really, really fun tool to use, especially if you're working with teenagers. And I can just encourage you, even for your listeners that have worn hearing aids for a long time and you're upgrading them or you're adding programs to try practice their musical atmospheres, because that's really useful program to get cortical plasticity in a fast amount of time. Now, for children, we also have some wonderful tools.

We have our Baby Beats app, and we have the Listening Room app and Baby Beats. You may already be familiar. Baby Beats is our resource that we use for our 0 to 5 group. It's an app, so it's user friendly. Caregivers can download the app.

It's got musical activities that is built in and there's four different trails. There's video examples for parents. And again, we try to structure it in a way that it's not formal auditory skills training. And it's easy for parents and caregivers to use, but it's, of course, following the science. It was designed in conjunction with a musical therapist.

Her name is Chris Rocker from St Thomas in London. And it's really such a lovely, fun program. I've got a video example. This is a little bit longer video. This is Melissa and Sage.

It's so a. It's a parent. And she used the app with her little one, Sage, and it's just a really lovely video that shows you, you know, her feedback and how she utilized the app and as well as some Examples of the musical activities they did.

Hi everybody, I'm Melissa and this is my daughter Sage. Sage has mild to moderate hearing loss and, and we are super excited because in the next couple weeks we're gonna be testing out this new app called Baby Beats. It is from Sage and Aiden's hearing aid company called Phonak and a cochlear implant company called Advanced Bionics. The app comes with a parent guide that describes how to use it. There's, there's lots of videos and I'm super excited.

I think Sage is going to love it. She's loved it when we did it in her baby group and I'm excited to see how we can use it in our everyday lives.

Running, running, running, running, running, running. Stop. And we had a blast doing it. It was super fun, especially when I let go of trying to do it in a formal setting and just flowed with Sage's schedule. At first I was hoping to have this, you know, special part of our day where we did Baby Beats and we really worked on these awesome listening skills skills.

But it just didn't work like that. Sage is way too busy, way too excited and into everything else. So finally when I let go and relaxed and flowed with her routine, things went so much more smooth.

Yeah. So it's a really lovely video and hopefully you saw, you know how they were using the music is in the background and the music doesn't have any language and that's on purpose. So the families overlay the language. Like you saw she was saying, rocking, rocking, side, running, running, running, stop. And it helps because it means that it's really family centered in terms of if families wanted to speak Spanish, if they wanted to speak different languages while using the musical overlays.

And if you think about that map of the brain, especially for a developing brain, we do language with music. We have the highest cortical activity. Right. So we're laying those foundation down. So yeah, Baby Beats is wonderful app.

I so encourage you to to give it a download via Hearing Success. It's a fun tool. Then we also have Listening Room. Listening Room is one of our oldest listening practice tools and it has had a bit of a rebrand now. Listening Room.

One of our most useful parts of Listening Room were the downloadable worksheets. And we still have families and caregivers tell us we don't really like screens. We like more paper based resources. And some speech therapists, teachers of the dev, they want to use a paper based program. That's where you can utilize the Listening Room.

So there's over 300 listening practice activities and downloadable worksheets of things that you can Listening practice activities that you can do with your families and caregivers. So here's just a sample of some of the tools and activities that you'll find in Listening Room. There's loads of stuff there and I know I really loved Listening Room when we had to think of ideas for auditory training and what to do the next day in therapy. There's loads of tools there. And this is also useful maybe for your families that live more remote and they don't always have digital or Internet access and they want to have something like a paper based tool to fall back on.

So that's a really great solution for your families too. So that comes to the conclusion of some of the examples that you'll find on Hearing Success. What else you'll find on Hearing Success are things like Additional resources about hearing loss, as we said, links to our community, links to the blog where they can see stories of other families and individuals that have gone through the hearing loss journey. And to echo back to Katie's slides, those barriers that we talked about earlier. A lot of the barriers, hearing Success and listening practice, they will be eliminated.

So for adults, cost, everything is open source, everything is free. So cost is no longer a barrier in terms of accessibility. They can do it in their own time, in their own space, wherever they feel comfortable. All that you need is a device that can connect to the Internet to download these types of materials. And

then for children, really you can think about including perhaps caregivers that are not the parents, like grandparents.

I know I've had lovely testimonials and videos from grandparents that use baby beads and listening room when the grandchildren are visiting. So it's a really lovely resource that you can use in various ways to make your practice more family centered and holistic.

So my recommendation now is please to go to hearingsuccess.com register. What I will say is if you have ever downloaded Baby Beats or Word Success, then login is the same. So if you register for Hearing Success, the login you use for Hearing Success is the same login that you'll use for Baby Beats that you'll use for Word Success so you don't have to register continuously. It's the same login all the way around. And I just give you advice to go into the platform platform, give it a play, click on all the tools, have a look through all of the different listening practice skills and different resources that we have there and I think you'll be very pleasantly surprised of the plethora and treasure trove of tools that you'll find in them.

So in summary, we are all now preachers of oral rehabilitation and auditory skills. You know that we know that auditory skills is part of that hearing journey. The devices can only take us there so far. We hear with the brain. And here is now some really wonderful resources to help with that oven part of the journey.

It completes your hearing care ecosystem and the fact that it's online does help overcome a lot of those barriers that we faced in the past. And more and more the evidence skill set is growing in terms of oral rehabilitation and there's resources for both adults and pediatrics. They customize, it's convenient so hopefully you find some things useful there and your families and wearers can benefit from it it as well. So together we can change lives. And here are all of your references and what I will say as well is if you have any questions or anything sparks your interest, please reach out to your Phonak representative.

AB and Phonak work alongside together. So if something sparks your interest, you want demos, please reach out. We're super happy to give you more information.

I love that. Nicole, with the couple minutes that we have left, one amazing question just came in. How would you see this working for someone who's an educational audiologist? Could they use hearing success and those types of things in the classroom as well? I can see those worksheets being very useful.

As soon as you mention that, I'm like, oh, classroom for sure. Yeah, definitely. In terms of educational audiology, I mean, doing groups and doing group sessions with families where they can connect with each other has been super successful. So in the uk, I did loads of Baby Beats groups where we just, you know, once a month did an hour where we got all the babies in one place and the parents have the ability to also connect with each other. And doing these type of tools in a group session is also kind of useful because it helps you spot, you know, which in the group which ones are needing maybe extra support, which ones are able to connect with the music more.

So I can definitely recommend doing Baby Beats in a group. The only thing then I will recommend end is adapting the tool slightly. So traditionally, no Baby Beats an app, you're going to play it via the speaker of your phone. But if you're going to do a group, then definitely use a Bluetooth speaker. It's not the speakers of the phone are not going to be loud enough.

And then, you know, give the families some context about the music and why you're doing it and then adapt the movements and exercises so that it's more of a group activity. So like the train, for example, you can make choo choo train instead of just using the arms of individual bass maybe and the same for teenagers. Musical atmospheres in teen groups has been really beneficial and encourage your, your teachers to attend these sessions so they can see, ah, okay, the principles of how to speak about, you

know, language and music and listening practice tools. But I can highly encourage you to use musical atmospheres in team groups because it gets them talking about music and trains and then beyond the listening practice tool, what they can utilize, you know, they can go to YouTube and play their latest hits and what, you know, music makes them feel different kind of ways. So yeah, it's, I can definitely encourage you, please, to use it in educational settings.

Well, I absolutely love hearing you talk about this, but I think the, the main point we want to get across, do auditory skills training with your patients. SONOVA has some amazing resources for you. If you want more like Nicole said, please reach out to your PH and your ab team, go on the websites, create a login. Login, practice yourself. But yeah, thank you all for joining us.

Like I said, I think this is a great topic in, in the world today and if we can get our patients to do better and have more success, I mean, what more can you ask for? So yeah, yeah. Thank you.

Good. Thanks Katie. And thanks everyone for the time today. And yeah, we are all converts now. Oral rehabilitation.

All right, thanks to you both. I'm going to go ahead and end the session for today. Thanks everybody.