



Transcript of meeting: Saturday, May 18, 2019

This is an edited version of the transcription projected on the screen during the meeting. The transcriber used the "TypeWell" method synthesizing the essence of the discussion using advanced abbreviated software. Thus, the following is not necessarily verbatim.

Larry Wonnacott, Chapter President: Our guest presenter today is Tina Worman joining us from Seattle. We ordered this weather just for her drive!

Tina is a cochlear implant audiologist at the University of Washington Medical Center. She joined the UW Med team in 1999 and is a coordinator and adjunct lecturer. Tina participates in research projects with manufacturers. She made a similar presentation to another group I attended, and I found it incredibly informative. I am sure you also will. Here is Tina!

[Applause]

Tina Worman: Thank you all for coming today. I think many of you know people who have had hearing aids and been trying to find the right one for years. They have spent thousands of dollars. They keep the hearing aids in a drawer because they are uncomfortable, or sounds don't sound right or they just aren't helpful.

We also know people who have hearing aids that say they are the best thing they ever bought! They are now able to participate in activities they couldn't before. Why are those two people different? What is the difference? What can we as audiologists change to help them hear better? What can you do to improve your satisfaction with hearing aids?

Today we will discuss how to talk to your audiologist about how to hear better!

Before we consider what to tell your audiologist during a hearing

appointment, I want to go over vocabulary for describing sound and how we interact with it.

What is hearing? What is the difference between hearing and understanding speech? Many of you have even done it yourself, where you said "what?" and when they spoke loudly you said, "I can't hear you."

Hearing is our perception of sound, whether it is loud or quiet. We use hearing to detect presence or absence of sound. But knowing sound is there is not enough. We need to discriminate two sounds to tell the difference, to recognize them and comprehend.

Listening, as you all know, is another component with your interaction of sound. With hearing loss, it might require more listening effort or attention to understand a message and pay attention to sounds and environment.

If we interact with sound in the same way, why don't I do as well as my spouse with hearing aids? There is a combination of factors. Some are objective, some are subjective.

Every person defines success differently. For one person you might say that you love your hearing aids. They are uncomfortable, the sound is strange, but you wouldn't go a day without them. Some people see success as having a short conversation at the grocery store, other people might see not understand a single word a failure.

Some of these goals are person dependent and your interaction with your audiologist won't change things.

One factor is your age of onset of hearing loss. The time between onset of hearing loss and when you received your hearing aid or implant might affect the outcome. A longer duration between might take longer to adjust.

The cause of hearing loss is a factor. A loss outside of the ear in the brain will affect the processing and adversely affect outcomes.

While those factors cannot be changed by your audiologist, there are other factors you can change. One is to program your hearing device to allow you to hear quiet sounds along frequency range. These can be s, f, th sounds to help you understand speech better.

Hearing quiet environmental sounds is beneficial as well. Hearing the water boil when you know the pasta is in is something taken for granted. These can be hard when we first receive the device when sounds are strange and new again. You have to decide what sounds to attend and which to block out.

Using your hearing aid or cochlear implant during all waking hours sounds reasonable to everyone in this room. But getting up and turning it on in the morning is not enough. You need the volume at the level where you can hear soft sounds. You might try to play the radio in the background or listen to a talk show to expose yourself to conversational speech.

This can be difficult. Many with hearing loss teach themselves to isolate themselves from conversational speech. It can be difficult to jump back into that. If you have a mild or moderate loss you might think you only need hearing aids during special outings because at home you can get by. You should always wear your hearing aid all day, every day. That helps you recognize speech when in difficult listening situations.

Completing auditory training or listening exercises several hours a week improves your outcomes. Angel Sound is a great tool and is available as a download or app for iPad/iPhone. Audiobooks are helpful as well but keep in mind it is to read the hard copy while you listen to put the two together.

The lace training program and brain HQ program from posit science is helpful as listening exercises to help learn and discriminate speech.

(Ed. Note: LACE® is a self-directed computer-based auditory training program. Just as physical therapy can help rebuild muscles and adjust movements to compensate for physical weakness or injury, LACE® will help you develop skills and strategies to deal with situations when hearing is inadequate.)

Contact Western Washington University and enroll in oral rehabilitation. The HLAA website is great for more research if you search auditory training within the site.

Constructive feedback from family, friends and coworkers is another way to optimize your hearing and communication. Ask the people around you how you are doing! Positive and negative feedback is helpful for the audiologist. Part of your success is educating others around you about your hearing loss. Today, coming to this group and participating, is very beneficial to your outcome. Not only helping you better understand your hearing loss but also helping you to help others.

Your hearing loss might affect you and your family.

Learn to explain your hearing loss better. You might say "I can usually hear you well, sometimes it sounds like a fuzzy radio station " For implant users we use the example of a prosthetic hand. It is helpful but your handwriting won't be beautiful the first week. It takes time and practice.

Knowledge of when and how these factors affect performance can favorably influence counseling, device fitting and rehabilitation for individual patients to lead to maximized performance and satisfaction for everyone.

Now that you understand the factors and you aren't hearing or understanding speech, talk to your audiologist. Prior to making the appointment make sure your equipment is working. Sometimes when you change a microphone protector or wax trap you realize you have adjusted to poor sound quality. If possible, it is a good idea to clean or replace your equipment.

Also review the summaries of your training exercises or perform them before you go to the audiologist. Then schedule your appointment.

Before considering what to tell the audiologist, it is helpful to understand your audiogram. Everyone should have a copy of their audiogram and a good understanding of the graph.

In 2004 Mark Ross wrote an article in the HLAA magazine called "The Audiogram: Explanation and Significance." He states that after 10 years of writing articles he neglected the most important hearing dimension of all, the simple audiogram.

In reality, the audiogram, particularly the implications, is not so simple at all. As most of you know the audiogram is a graph that plots thresholds of hearing. across the horizontal axis is frequency and the lower frequencies are on the left and highest on the right.

Down the vertical is loudness measured in decibels. The red is right ear and the blue is the left ear.

So, hearing within normal limits is typically based on thresholds of -10 and 25 DBHL. In this audiogram the sounds in the higher pitches need to be louder, 60-70 DBHL to hear them. On the lower they can be softer, around 20 DBHL to be audible.

This is a high frequency hearing loss. Because the brackets, which are bone conduction are the same as when the sound goes through your ear, is considered sensory neural. This is a problem with the inner ear.

The audiogram should also include word recognition. Vowels have a lot of energy in speech and are primarily in the lower pitches. The consonants carry a lot of intelligibility of speech and their energy is in the higher pitches. In the middle you have both of them. When testing word recognition it is typical to look for a PD max. This is the best word recognition score.

Ninety percent will show if a louder sound improves word recognition. On this audiogram speech was initially presented at 70 DB. That is this green line. Not surprisingly 84% of PDmax was not obtained. The person was barely hearing the higher pitches. When loudness was increased then PDmax was obtained after 3 presentations on the right and 2 on the left.

Often an uncomfortable loudness level is determined prior to word

recognition to not exceed your comfort level.

I scheduled my appointment, I have my audiogram, now what do I tell the audiologist? How do you make abstract ideas into meaningful information? What is muffled? Hollow? Tinny sounding?

Use your vocabulary to work with your audiologist. When we hear it is not clear, we want to know more. So that is why you make the appointment. But it is helpful for you and the audiologist to describe this in more detail. Today I will focus on four topics to describe the details of why the sound is not clear.

We want to know about quality, who is talking, the situation/environment and what equipment you are using.

Many of you might -- maybe you see the HLAA logo. How would you describe not being able to see this?

Speaker: Fuzzy.

Tina Worman: Yes. Sound quality. How do you describe sound quality? It is so different from anything you have heard before, especially with a cochlear implant. You might focus on quality of speech rather than other sounds. Is quality different? Are sounds boomy? Metallic? Fuzzy? Sharp? If you don't care about the dishwasher making noise, is that noise clear or humming?

There are popular words used to describe sound. You can find lists by searching online. When you use your vocabulary to describe sound then ask someone with normal hearing about the quality of something. Talk to them about that dishwasher. Does it have a hum to them too? If you aren't sure of your accuracy of a description ask for input, how would they describe the difference between an echo and hollow sound?

If you cannot find a word or two to describe speech, then consider the overall quality of speech. Do they speech sounds run together? Can you tell the sentence has five words versus three? Does speech blend with the

sounds from television or other background noises?

When a person stops a sentence do you continue to hear sounds? Do you hear extra sounds? Does it sound like the person has a lisp?

We always want to know which changes have you noticed since your last appointment? If your comments are the same since your last appointment that is also helpful to know.

Some of these may be experienced as a new user but it is always a great idea to describe speech to determine if something can be done.

In addition to quality we want to know about loudness and comfort. Are sounds, including speech, too loud? Too quiet? Are quiet sounds too quiet? Loud sounds too loud? Is loudness relative to the distance of stimuli? Can you hear traffic on the street but can't hear the spouse's voice? Is the loudness OK for speech but not other sounds?

Understanding what is too loud or too quiet helps the audiologist know which programming parameters should be adjusted. Bring the results from Angel Sound or other listening training if you have them. This helps the audiologist identify which groups of sounds you aren't hearing as well.

If you cannot hear f's and th, then maybe you need more input for higher or quiet sounds. It is also helpful to know about the loudness of sounds in different environments. Is noise or speech too quiet? Background noise too loud? Take notes about volume and which settings you are using. Share those with your audiologist.

Many of you now the pink area on this audiogram is called the speech banana. Most of the speech sounds fall within this area. Any sounds above a line like this blue line are sounds you might have difficulty hearing and discriminating. Hearing aids and some implant processors respond differently to soft sounds. When you have sound filled thresholds you should use them as a guide and not an absolute.

The average hearing threshold with your implant should be around 30 db.

With a hearing aid you might hear sounds as quiet as 0 db. Testing your ability to hearing quiet sounds with the hearing aid help the audiologist know which sounds you need to hear better.

For hearing aid users, measuring the output of the hearing aid through real ear verification will best determine which sounds you need to hear better. Most of you are familiar with the phrase "the carrot is a long reddish vegetable which belongs to the parsley family." Right? This sentence is used, there is a small probe here that goes in the ear canal, when the sentence is presented the probe measures the amount of gain you have from the end of this to the ear.

When you have hearing aids you need a real ear verification. You might not hear that sentence based on the system the audiologist has.

The second topic is the speaker. What do you do if the speaker has a less than optimal speaking voice? You might not be able to control this but by recognition you can improve the outcome.

Live voice versus recorded speech. Is the answering machine easier to understand than the person? Is television difficult? Even with one person on the news? Are male voices too high pitched or similar to female voices? Are you missing the resonance of speech? The speech of family, friends and coworkers might be easier to follow. If you have difficulty understanding your spouse, you might ask her or him to read a book and have you follow the text.

Accented speech, including nonnative speakers are typically more difficult to follow. Identify the source of the speaker. Microphone, speaker, phone, etc.

Is it the speaker or the environment? Is it situation specific? Do you only have problems while at a restaurant or other noisy place? Is it difficulty within quiet rooms? Reverberant rooms? Do you have a problem understanding in your daughter's kitchen? Maybe she does too but doesn't know that moving will help.

What about competing sounds? Are they inside the room or outside the room? Sometimes just closing the window can greatly improve the flow of conversation.

Is background noise speech as well? If the television is on, maybe it is hard to have a conversation. In general, room acoustics can make a difference in speech recognition. If you only have difficulty hearing a spouse in one room, then changing rooms might be more beneficial than changing your program.

Evaluating this before an appointment helps narrow down the environment versus the hearing device. Also, where you are sitting in the room can affect you. If you are near an open window can you move away?

Let us know which settings worked and which didn't in situations.

We have talked about quality, speaker/environment but what if you want more? Equipment can improve the level and quality of speech. This equipment is not limited to hearing aids or cochlear implants. It is overwhelming to know what you need to perform better. Ask your audiologist about additional equipment. Learning about your options will help you know what to ask. It also helps you understand how sound can be transmitted to your device.

Equipment is overwhelming. What do you need? How do you know what you need? Start by bringing your accessories to your appointment. We review accessories all the time so don't feel bad. This can include wireless accessories. Bluetooth, FM, infrared.

You might use a remote microphone. I am using one today so that my voice can be transmitted to the cochlear implant. These are helpful in a car or at a restaurant or when you are doing listening exercises. Sometimes people find that listening to a phone message through a transmitter is more pleasing.

You might say that you hear about FM systems. Here they are on the table. What is it? Will it help? FM systems are helpful when a group want to

focus on one person, such as your focusing on me. Or a system, this person on the left with a cochlear implant, wants to focus on three other people. This is beneficial in a noisy place. This system can be beneficial to block out noise.

You can use the system if you are a teacher or student in the classroom.

Everyone here knows about telecoil. The telecoil is a small coil in the hearing aid or implant. It is a receiver that takes sound from a loop, whether around your neck or the room. This loop is an electromagnetic field. The hearing aid or implant converts that signal to sound. When you see this device convert to telecoil.

Discuss the option of mixing the phone signal with the microphone on your hearing device. For example, when you are using the phone do you want to hear 100% from the phone or would you like to hear your own voice as well. On a busy street you might 100% from the phone to block the street noise.

If you are in a large room and people are rustling paper, then you might need to hear 100% from the FM system. This is something that your audiologist can change in your hearing aid or cochlear implant.

An additional question is how to use the phone. This is not a simple answer. Be prepared. Do you want to switch programs? Change transmitters? Use a caption phone? Do you want to use a speaker phone? A cell phone might sound better than a land phone but the speaker on the landline might be better than a cell phone. Think about the room where you are using the speaker phone if that is your choice.

Wireless accessories have become popular. Many of these are Bluetooth accessories. Some have a transmitter to go from the phone to the transmitter to the hearing device. Some hearing aids go from the phone to your hearing devices.

Some people still use direct connect from the phone to hearing device. If you use this make sure there is an in-line microphone so that the other

person can hear you talking.

You brought your list about quality, speaker, environment and equipment. You use your vocabulary learned today. Your audiologist makes changes and asks how it sounds. What do you do then? Just pause, converse for a few minutes. It is OK to express your reactions if it is too sharp or too loud, for example. Then focus on your comments from before the appointment and apply them.

Another helpful tip is bringing a familiar recording to test the new program. Bring a family member and topic to practice the new settings. If you need additional time for evaluation go on a walk down the hall or outside the exam room. Describe how the new setting is different. Maybe it is sharper and more comfortable. Or express that it is different, and you don't know why.

Today you should have expanded your vocabulary to express your situation and to have a productive appointment. Schedule your appointment, take notes prior, come well rested and ready to concentrate, be sure to bring your gear like a backup processor, accessories for a phone or music player. Maybe make a check list specific to you.

Here is an example of one I came up with. Some things you might consider is equipment. What do you have/ what do you want to use? Microphone protectors and spare parts. Training and vocabulary list.

Bring places you were successful. Places you weren't. Bring input from your family and coworkers. If you want more time, schedule a follow up appointment. Bring a list to discuss at that appointment. Discuss what the audiologist prefers you to bring to the next appointment. Consider enrolling in oral rehabilitation at Western Washington University

Thank you all for coming today and for Whatcom county HLAA for inviting me. I want to thank all of you because I learn so much from you. Your comments, suggestions and idea help me learn more. Everyone will benefit from them.

Thank you, University of Washington ear doctors Hume and Rubinstein for their continued efforts in auditory research.

I want to give thanks to Dr. Hirsch. In 1952 Hirsch published a textbook on audiology. I was a student at the central institute of the deaf. You have probably heard him when he said, "Say the word" during testing!

We have a few minutes for questions.

Speaker: Being involved in getting the hearing loop here in , we are adamant with hearing professionals to have loops in their office. I never hear people who give speeches about this talk about getting offices looped.

Tina Worman: I would love to have my office looped. We haven't been successful in getting that. My colleague and I did receive a grant and we looped the front desk. It was limited to one station but at least we can test it out there. When you check in the station is looped to focus on the person asking questions. We will keep working on it.

Joyce: Your presentation was very good and helpful. I am wondering why audiologist don't have a list of words available to people so that they could describe what is going on. That would be helpful for me. Or interpretation of the audiogram. Then I could understand it or have an interpretation. I wonder if you would be comfortable to send the PowerPoint and make copies of some of the pages? Like the checklist or the list of words. We could put it on the information table.

Tina Worman: I encourage everyone to look at Mark Ross's -- are you familiar? His article on the audiogram. Every person who has had a hearing test should read that article. You can review it several times and when you see the audiologist you ask better questions.

Bert: I really enjoyed what you said but you are on the only audiologist who asked me those questions. They usually put me in a booth and do sentences and words and all that. Sometimes they talk in technical terms I don't understand. Audiologists should hear this presentation!

[Applause]

Tina Worman: I think working with cochlear implant patients every day full time helps me understand when people have questions. The water boiling, that was something I never thought about until 20 years ago when an implant patient made that comment. I wondered if I even could, so I went home and tested it out!

We can all be more aware and educating others is always good.

Robert: I live in a quiet area and I can crank my television. Why is it important to wear hearing aids all day?

Tina Worman: The more you are exposed to sound the more you train your brain. When you go to a place like the grocery store you have training for interpreting the sounds. If you put on hearing aids and then go to the theater it can be hard to adjust to the sound of the movie. Having some conversation every part of the day is beneficial to keeping those pathways toned.

Tina Worman: Television doesn't work as well as the radio. Sometimes television is too difficult to block out the words and background noise. Having the radio playing, even if you are passively listening is helpful.

Charlene: I have been going to Western Washington University for aural rehabilitation. I do quite well with my cochlear implant. But one thing I have learned is that if we don't wear our hearing devices, we don't practice listening. Listening is an effort on our part. I can appreciate much more the skills I am gaining and strengthening my ability to listen. Sometimes we get lax and I have been amazed at how much more I recognize is going on because I am paying attention.

Back to the audiogram, although I did not provide a hearing loss management workshop this spring, the time has passed, I will be giving those again this year. We do discuss the audiogram. I am not a professional, but I have dealt with them for so long I can give quite a bit of information to help appreciate what the audiogram is saying. With this

presentation I will up the quality of what I say to cover more information.

I encourage everyone here to take my hearing loss management workshop if you haven't already. You get the basics and it will benefit you a lot. Keep that in mind!

Claydene: I want to reinforce what Charlene reinforced. I have a funny story about putting your hearing aids in the morning. In our household Bert puts on his ears before he puts on his underwear!

Bert: After 60 years she can get away with that.

Larry: Thank you so much Tina. That was incredibly informative. Here is a little gift for making the drive down!

Tina Worman: Thank you all!

[Applause]

Larry: Now that you have had a chance to enjoy the refreshments, please thank the refreshment suppliers. Sigrid! Joyce! Thank you all very much!

[Applause]

Speaking of volunteers. You know we have been trying to recognize one volunteer each meeting. This week I would like to recognize one of our refreshment suppliers, Joyce for all that she does for us. Joyce does so much. She sends out our cards, she calls people who don't have email for meeting notices. She always steps up whenever we have something to do that needs to be done, she is one of the first ones to raise her hand. We appreciate her so much.

Thank you so much! This is a volunteer organization. We are blessed. I think the reason that we have the strongest and some would argue only chapter in the state of the HLAA is the willingness of people to volunteer. I appreciate it.

We have two bits of news about volunteers for our group. First, one of our cofounders, Charlene was named the Hamilton Relay recipient of the Better Hearing and Speech Month Recognition Award for Washington. This is a really special honor. Only one person gets it each year in the state and Charlene is so deserving. I am going to tell you some of the things Charlene has done.

She worked with the AARP Driver Safety Program to make it accessible to students with hearing disabilities at local, state and national levels. She worked with Cascade National Park for better hearing accessibility and Charlene and her Hearing Dog, Lola, are Volunteer Ambassadors for Dogs for Better Lives.

Charlene has been working with the communication access team which gets theaters, stadiums and public venues to provide captioning and assisted listening devices. She is a cofounder of this chapter. She has mentored people including me who seek resources about hearing loss and cochlear implants.

She has her hearing health management seminars. I am an alumnus of that and learned a lot. I learned how to interpret my audiogram much better through her help. She was one of the advocates for us getting the cochlear implant center here in Bellingham at St. Joseph's.

I think we are all deeply indebted to Charlene. I can't think of anyone more deserving of this award.

Charlene: Volunteers don't do it alone. We do it as teams. I would say that I couldn't have done it without the support and involvement and dedication that we have had in this Chapter from day one in 2004 until now. I thank you and it was nice to be recognized after all these years but the real reward is in our ability to hear better and be able to manage hearing loss because you have more information and support and a lot of good role models. So that is why we are doing so well! It takes more than one. It takes the whole community and we have a great community.

[Applause]

Larry: Thanks Charlene. We also have another one of our illustrious founders who is being honored. That is Bert. It goes without saying that our founders are something special. Bert has been named by Cochlear Americans the 2018 Community Hear-O for National Volunteer Month. I don't think this has been formally announced yet, but we know about it. It is really special.

Personally, when I began exploring a cochlear implant. Pam Spencer suggested I contact Bert. I did and he spent time with me and answered my questions. I met him at my first meeting here at this chapter and talked to him about implants. He made me much more comfortable with the decision to get an implant. Charlene did as well. The two of them helped me a lot. I am really, really grateful for that help.

So here is what we can say about Bert. You can say a lot about him but this is public. He has worked tirelessly to spread awareness. He is a founding member of this chapter of HLAA. He has dedicated time to keeping this chapter and the cochlear community chapter alive. He is a pillar in the community. He led the campaign to get St. Joseph's to add CI surgery. They both worked closely to get Dr. Olson to have a CI center. He has mentored many people over the years and brings attention to the benefits of CI and the hearing loss community.

Give Bert a big round of applause.

Bert: Thank you. I will remain seated I have a dog on my foot. To echo what Charlene said. You can't do this alone. I want to recognize Jerry and Joana Olmstead. They mentored me 11 years ago and because of their persuasion I received a cochlear implant. I went from being deaf to almost 100% speech comprehension. I want to recognize my life-long companion, Claydene, as well. You can't do this alone. When you see your audiologist please take someone with you. I have been fortunate to have Claydene with me over the years.

Larry: OK. So that sums up how lucky we are to have such great volunteers.