

REALTIME FILE

NATIONAL CENTER FOR HEARING ASSESSMENT AND MANAGEMENT  
(NCHAM) WEBINAR

"Using Multi-Modal Approach  
To Support Children With Hearing Loss"

Monday, May 8, 2017

2:00 p.m. EST

REMOTE CART CAPTIONING PROVIDED BY:  
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>> WILL: Well, good day, everybody. I want to welcome you to today's coffee break webinar entitled Using Multi-Modal Approach To Support Children With Hearing Loss. My name is William Eiserman from the National Center for Hearing Assessment and Management and I'm here just simply because we are sharing this web-based platform through which these webinars are being offered in recognition of ASHA's Better Hearing and Speech Month.

This is our fourth in a series of five coffee break webinars and today's webinar is being presented by Karen Latimer from the Center of Disability Studies from the University of Delaware.

Karen is going to present for about 15-20 minutes and once she's completed her works, we'll open up a text field where you will have an opportunity to ask a question or make a comment.

And today's webinar is being recorded, so if you have any disruption in it from a technological standpoint or for other practical purposes, never fear, it will be posted on [kidshearing.org](http://kidshearing.org) and you will be learning about the exact link to this and the other webinars via e-mail in the days ahead.

So, without further ado, I will hand it over to you, Karen, and you can give us a little background on yourself and then your presentation

>> KAREN LATIMER: Great! Thank you, Will. And thanks, everyone, for joining the webinar today for better speech and hearing month. My name is Karen Latimer and I am the assistive technology specialist with the Delaware Assistive Technology Initiative or DATI. DATI is one of the state technology, assistive technology ACT programs, they exist in each state I am also associated with the early childhood project and promoting participation of young children in daily routines and activities through the use of assistive technology and modifications to their environment.

Today we're going to focus on deaf and hard-of-hearing children who are being served

in early childhood settings. It's important for us to know who they are so they can have enriched playing and social experiences.

Children learn by indicating the sounds they hear. If they have a hearing loss, they may miss much of the speech and language around them. This can result in delayed speech and language development. Problem with interacting with adults and other children and difficulties learning.

One challenge can actually be finding out who these children are, especially in very young children, the signs of hearing loss can be subtle or dismissed as developmental differences or child-specific preferences.

The signs of hearing loss are often misunderstood or mistaken for signs of another condition.

Another thing making detection of hearing loss tricky at times is that the loss may be only in one ear or it may come and go with changes in the child's hearing health.

Ear infections, even ones without noticeable symptoms, can cause fluid to build up in a child's ear and dramatically reduce the amount of sound that he hears.

Babies can't tell us when they're having trouble hearing. Instead, we have to look for signs in their behavior that suggests they may not be picking up auditory information from the environment or from other people.

Some tell tale indicators may be if they don't turn at a loud noise or look at indicators that they do at six months of age, if they don't turn their head when they don't see you, not if you call their name, if you're talking behind them or from another room, they are not likely to stop what they're doing to look for you. If they don't move their eyes to follow sounds. If they seem to hear some sounds, but not others.

If you observe these signs, refer the family for further screening. This was the topic of a webinar held the other day which is archived for your reference.

Hearing problems may not become obvious until children are 12-18 months of age, when they should begin saying their first words. Children who can't hear well often respond to their environment by using their senses of sight or touch, which can hide their hearing problems.

Other signs of hearing loss in a toddler or preschooler might be that the child talks too loudly for the circumstance, such as when their communication partner is right next to them.

The child appears to daydream because he's not connecting with the things going on in his world. Not reacting when spoken to is a great example of that.

A child might ask to have the volume on the TV turned further up than necessary.

The child might ask a lot of questions, often saying "Huh?" Or ask you to repeat your words.

If the child doesn't follow directions that you provide using speech but might follow your gestural directions like following your point very well, the child might give off the wall responses to questions because he didn't actually hear what you said.

The child might watch others carefully to try and pick up clues about what they are supposed to be doing because they didn't hear the spoken direction.

The child's speech development might lag behind other children his age or he might have some speech, but it sounds different from the speech of other children the same age or he's difficult to understand.

If a hearing loss has been diagnosed, it becomes important to know whether the loss is mild, moderate, severe, or profound, because that tells you how much useable hearing the child has.

These terms are used by audiologists, speech language pathologists, and doctors to

describe the degree of hearing loss. They're associated with decibels, major sound intensity, but it's more important to understand these words in terms of the practical information in the child's life.

A mild loss may mean the child has some hearing but may be -- if he can't hear who's talking. A child with mild loss hears a soft sound and won't hear a conversation even in a quiet room.

A child with a moderate loss will have considerable difficulty hearing normal conversation in a quiet room. If there is background noise, he will not be able to understand many words unless he can see the mouth of the speaker.

A child with a severe hearing loss will not be able to hear conversation unless the speaker speaks very loudly.

And a child with a profound loss may not understand even loud speech.

Children with moderate, severe, or profound hearing losses require hearing aids and other technologies to help them learn and interact with others.

This makes it important to know if any devices have been provided to the child that either boosts the level of sound getting to their ear or that converts the sound into a modality the child can perceive, like a visual signal or a vibration.

But before we talk about devices that can help children with hearing loss, let's talk about simple techniques and strategies that you can use to help children with hearing loss engage with their environments and the people in them.

Make eye contact with a child before speaking to him. That will signal that information is about to be exchanged.

You might need to use gestures like waving to attract the child's attention to you and then you can encourage him to pay attention to your face by establishing eye contact and keeping his face in your line of sight.

We move around when talking to children but be mindful, if you turn your head when talking to a child or you turn away to do something, you have just taken a really important source of information away from the child who relies on being able to see your face.

Speak clearly and slowly without overemphasizing your words or exaggerating the shape of your mouth. It isn't uncommon for people to make their vocal movements much more pronounced when they realize the person they're speaking to doesn't hear well. But those exaggerated gestures can distort the information rather than make it clearer.

Don't be reluctant to share information through other ways than speech. Being multi-modal, using lots of different modalities to share your information is beneficial to a majority of children, but especially important to children who are deaf or hard of hearing. You can point, use gestures, photos, pictures, and other visuals to communicate information.

And you can encourage other children to use alternate modalities with you as well. After all, the point is to get information across. How you do it is less important than managing to do it successfully.

Avoid noisy environments when possible. Children who try to make the most of hearing they do have are really at a disadvantage in noisy situations.

The noise drowns out meaningful sound and children can become very frustrated when they know someone is talking to them but they can't make it out because of all the noise in the background.

We'll talk about this more in a bit when we turn our attention to assistive devices. But even without special tools, you can use light and vibration to attract a child's attention.

Flash the classroom lights to signal you are looking for the children's attention. Use something to create vibration such as hand clapping or beating on a drum for the same purpose.

Similar to what we touched on before, don't hide your mouth, chew gum or food while talking with a child. It interferes with the child's ability to get information from watching your face and mouth.

If the child does not understand you, try different words. Certain words are more visible because they involve the lips rather than the structures inside the mouth.

Think about the difference between the words infant and baby. One of those words is a lot easier to see.

Be in good light. Preferably with light on your face, not behind you. You want to maximize the benefits the child can get from looking at you.

These are really common-sense strategies that anyone can implement. Because the child may not be able to detect or understand speech and other sounds, make sure that important information is conveyed another way.

Now let's talk about some devices that can make an incredible difference for children with hearing loss.

The right device depends on what caused the hearing loss and how much a child can or cannot hear.

Several types of devices are available for children. With the most familiar ones being hearing aids. Hearing aids are small, battery-powered devices that are worn on the ears to help children hear more clearly. They pick up speech and other sounds through a tiny built-in microphone and make those sounds louder and play them into the child's ears.

Children can begin to use hearing aids when they are as young as one month old.

There are several types of hearing aids, the most common for infants and children are those that hook behind the ears or BTEs. BTE hearing aids send sounds into the ears by attaching ear pieces that are custom shaped to the child's ear.

These custom ear pieces are called earmolds. Earmolds need to be removed as a child's ears grow. Because infants and young children grow rapidly, it is common for them to need three or four, sometimes more, sets of earmolds every year.

If earmolds do not fit well, sound can leak out of the ears, then the hearing aids are not as helpful and they may make a whistling sound.

Hearing aids come in different sizes but the size is not based on the age or size of the child's ear. Size is chosen based on how much hearing loss a child may have.

Children with more hearing loss tend to need more powerful hearing aids which tend to be larger in size.

Hearing aid care typically focuses on batteries and earmolds. Hearing aids tend to need new batteries every one to two weeks. An audiologist, a doctor who specializes in hearing problems, will help families decide which hearing device is best for children.

Beware of batteries around small children, they are small and dangerous.

There is some basic care to all hearing aids. They should be cleaned daily and wiped with a soft cloth. Do not use water, solvents, cleaning fluid or alcohol. Make sure your hands are clean. And cover a surface with a soft cloth in case you drop the hearing aid.

Another device is referred to as assistive technology devices or hearing assistive technology. They work like binoculars for the ears, it's like a teacher's voice or soundtrack on a video and work with or without hearing aids.

Hearing aids amplify all incoming sounds. Assistive listening devices pick up critical sounds using a microphone and transmit them directly to the child.

An audio loop is a wire that circles the room and connected to the sound system. It transmits sound directly to the child's hearing aid or to a receiver that the child wears. Infrared and FM system sends sounds using light beams or radio waves to a personal receiver worn by the child. This may connect to the child's hearing aid or can send sound directly to the child's ears.

Because children may not be able to rely solely on sound to pick up information in the environment, another family of devices known as learning technologies, turn environmental sounds into signals that are seen and felt and represent a combination of light, vibration, and amplified sound.

These kinds of devices can make a smoke detector flash in addition to providing a noisy alert. They can cause a small device to vibrate when an alarm clock goes off or there is a knock at the door.

In addition to devices, the arrangement of a room can be modified to make it more friendly for a child with a hearing loss.

Typical classrooms are noisy places when there are hard surfaces like walls, ceilings, floor. Sound bounces off hard surfaces and can present confusing circumstances for children with hearing difficulties.

Simple solutions like using sound absorbing tiles on the ceilings and walls, using carpeting on the floor, can reduce the amount of sound bouncing around a room.

One other important thing to remember, children who have hearing loss, whether or not they use assistive technology of one sort or another, will benefit from the services of a speech language pathologist who will help make the most of the hearing they have and using other communication options like lip reading, sign language, or picture communication.

In this webinar, we have focused on the ways that hearing loss can affect a child's ability to develop speech, language, and social skills. The earlier the loss is detected, the sooner the child can get devices and services, and the more likely they are to develop important communication skills that enable them to make friends, interact with family and teachers, and get information from the world around them.

Thank you for taking time out of your busy day to learn more about supports for young children with hearing loss.

I am available to answer your questions and have resources I wish to share with you. Here are some links that will connect you with additional information. The first leads to a directory of all the state assistive technology programs. These programs offer equipment demonstration and loan, as well as a variety of other supports, such as training and assistance in acquiring assistive technology.

The next link is information to hearing loss provided by the centers for disease control and prevention and has information about screening, diagnosis, treatments, and research.

I have also posted three links to the American Speech Language Hearing Association that addresses the cause of hearing loss, as well as hearing aids and hearing assistive technology.

Thank you again for your time today.

And Will, I'll turn this back over to you.

>> WILL: Thank you, Karen. We so appreciate your time. Of course, everybody else's as well.

I have opened up a questions field over in the left-hand corner of the screen, if you would like to make a comment or raise a question, that would be great.

There's one comment that the first link doesn't work, and I don't know what she might be

referring there to, to the ATA, that one?

>> KAREN LATIMER: Yep, the ATA programs doesn't work anymore? I'll post a new one in the comments section here.

>> WILL: Okay. We'll get that posted as well.

So, Karen, here's a question for you. Can you clarify about the importance of hearing screening for all children versus the additional value of options of parents and caregivers?

>> KAREN LATIMER: Well, the hearing screening will give you more information about the type of hearing loss and where exactly the amplification may help.

Observations by parents and caregivers is absolutely crucial, but we definitely want to get intervention and accommodation to the child as early as possible.

>> WILL: Yeah. And Karen, do you mind if I chime in a little bit on that?

>> KAREN LATIMER: Please, please, please, please.

>> WILL: Thank you. So we're with the early childhood outreach initiative and we all -- [Lost audio].

>> KAREN LATIMER: Will, I lost you, I don't know if anybody else did.

>> WILL: Oh, it was because I hit the mute button by accident!

What I was saying is I'm with the early childhood early outreach initiative, the ECHO initiative and we're concerned any time you might observe behaviors that might suggest that a child has a hearing loss. You always want to react to that and refer the child.

But we also know at the same time that we can't rely on those things; that children may actually turn towards sound, they may actually do many of the things that look like they're hearing adequately when, in fact, they're not, and that's the reason why we're always promoting periodic hearing screening and are trying to alert people to not assume just because a child doesn't look like they have a hearing loss, that there's an issue there.

It works in both directions. Do you have any comments about that, Karen?

>> KAREN LATIMER: I would totally agree.

>> WILL: Thanks. So, the next question is I've heard more people talk about not using FM systems in classrooms now to help hard-of-hearing students learn to filter out background sound.

Any input on this? And this person goes on to say that in her son's case, he has mild hearing loss, so perhaps it's more related to that level of a loss.

>> KAREN LATIMER: I have certainly not seen that here. However, I actually, personal opinion, would really disagree with that.

I think it's very exhausting for students, for adults, both with any type of hearing loss, to filter out background noise from the individual speaker and to work to do that is going to take away from his energy and his ability to sort out content from noise.

And the more that he is working to do that, the more difficult it would be for him to really get the information that he needs from a classroom. That would be my opinion.

But it certainly wouldn't be something that I would want to do.

>> WILL: And she's thanking you for that input, so you got some feedback there.

I think one of the things that is so awesome about everything that you've shared so far, Karen, is the underlying message, that access to a communication modality is the key; that we just want to make sure that children don't have a challenge in being able to communicate with those around them, and whatever the mode is, making communication possible is the key.

So, I see you're typing that new link there and I'm going to move that over in just a second.

>> KAREN LATIMER: Yep And also if you just do a Google Search of AT assistive technology ACT programs, you should come up with a comprehensive list as well.  
>> WILL: Okay, great, and I'm going to post this here so that people have that new link.  
>> KAREN LATIMER: Thank you.  
>> WILL: The next comment is, in my experiences, I've done some functional listening assessments with students with mild loss and hearing aids. They do worse in noise, so they need the FM, is what this person is commenting  
>> KAREN LATIMER: Yeah, I would agree, and I would agree. I mean, there's been quite a bit of research that talks about hearing aids working somewhere between the area of 6-10 feet and if you think about a typical classroom, you know, there's significantly more space in a classroom than 6-10 feet, and so the FM system, the loop system, something that directs the sound from the speaker directly to the student is going to be imperative in those situations.

>> WILL: Yeah, great

Any other questions or comments before we wrap up for today?

[Pause].

>> WILL: Well, I want to thank Karen and all of you for taking time today to give a little extra thought to this important topic as a part of Better Hearing and Speech Month. I'm going to post right now our information about our final coffee break webinar, which is tomorrow, and it's provided by the Center on Technology and Disability, which will be discussing preresources to support the use of assistive technology in young children with disabilities. That's tomorrow, same time, same URL you used to come on today. So, we hope you'll come there. That webinar, along with all of the preceding four webinars, will be recorded and posted. We will be sending you out an e-mail so you can see where to go for that. So, we hope to see you tomorrow.

And Karen, once again, thank you for your efforts today and a very clear and excellent presentation.

And a special thank you to Lisa, our captioner, who provided captioning services for us today.

Thank you!

>> KAREN LATIMER: Thank you, Will.

>> WILL: Oh, oh, and before I have you all go, if you'll stay online for just a minute longer, as soon as the meeting closes, you will see an evaluation question we hope you'll answer. Thank you!

[End of presentation].