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MAUREEN JOHNSON:

We are going to start in about a minute, feel free to introduce yourselves in the chat. For those just joining, welcome, we are going to start in a couple of seconds. Feel free to introduce yourself and the chat. OK, it's time to start. Hello and welcome to the 2020, post Eddie LEND Workshop, about adaptability in an ever-changing Eddie environment, thank you for joining us.

Before we begin today I would like to address a few logistical details, because of the number of participants you will remain muted unless you are speaking. At any point during the workshop, you can submit questions in the chat box, and I will read them aloud to make sure that we accommodate all attendees. We have CART captioning available, so if you like to access it, please click the cc button to view subtitles. If you wish to make the captions bigger or smaller, please select the settings and adjust the captions as you will.

We will have ASL interpreters, I believe they will be here soon, but once they are they will be on your screen and you will be able to pin them on to resume screen. Please also ensure that your name is displayed correctly in the participant list. You can rename your resume name as your first and last name, and then what LEND program you're coming from. So if you're coming from North Carolina LEND, feel free to abbreviated as NCLEND and your name. And again feel free to introduce yourself in the chat box.

I will now turn it off to Meredith Braza for some welcome introductions.

MEREDITH BRAZA:

Hello everyone, my name is Meredith Braza, and the LEND audiology technical assistance intern this year for AUCD, thank you all for being here tonight, we are excited for this seminar. And so, we're just really curious about where you're all joining us from, and who you are. So if you would click on this link, which I will put in the chat, or scan the QR code, we would love if you could answer some brief questions for us.

Amazing, OK. I'm seeing we have quite a few LEND trainees, and some faculty staff, thank you for joining us. Some panelists, we will be introducing our panelists in a moment. Some audiologists, great. HERSA staff, great. We have a lot of LEND trainees, glad you could join us tonight, and there will be a fantastic opportunity later in the workshop to network and chat for a case study with some of your fellow trainees.

Alright, so another question here, of the trainees, what year are you? And I will add the link to the chat, in case there were people who joined us just now. If you are not a fourth-year, but you are an extern you can select forth or extern. I see we have quite a few fourth-year's or extern's on the line, kind of a split in second place first years and third years. But we are tied, first, second and third years. I appreciate you all being here, as I said, it is kind of interesting to see where everyone is coming from as well, so if you could pin using this question, pin where your LEND program is in the country.

To see where we are all coming from, different time zones. Washington, Oregon, Wisconsin, Georgia, Florida, Ohio, Pennsylvania, New York, fantastic. North Carolina, go Tar Heels, we will be getting off just in time for the championship game, Colorado, Texas, Oklahoma, Arkansas, California. Great, we thought this would just be a accretive way to see where we are all coming from, a nice group to get together.

And now I will pass it back over to Maureen, just to acknowledge the workshop planning committee, and all the time they put into planning this workshop.

MAUREEN JOHNSON:

I can't thank you enough for helping put this together, Meredith Braza, Jackie Czyzia, Robert Fifer, Shelby Graves, Akilah Heggs Lee, Maureen Johnson, Kristy Knight, Rita Maldonado, Lisa Mancl, Robyn Schulhof and Amy Szarkowski.

We talk about how EHDI there will be time to address individual stretches for families as well as understanding solutions to these new emerging challenges and opportunities. I will show you-- give you a brief overview of the workshop, so we are going to have a brief introduction and welcome by Lauren Ramos from the maternal and Child health Bureau, followed by an introduction to the topic by Doctor Patricia Roush, then we will have her moderated panel discussion followed by a quick debrief, and then workshop on some case study discussions and zoom breakout rooms.

I'm going to turn it off to Lauren Ramos to give a quick welcome to the maternal childhood Bureau, thanks for joining us.

LAUREN RAMOS:

Thank you, grading to all of you and so nice to be with all of you to be part of the welcome as part of the Maternal and Child Health Bureau. As you may know MH these programs including-- as audiology trainees your part of the MCH were course and you will provide critical services to children with hearing loss.

A key hallmark of our training program is leadership. We hope that all of the trainees that emerge from LEND and other programs emerge as excellent health professionals and clinicians, and also as leaders grounded in leadership skills and experiences to continue into leadership roles throughout your career that support our children, youth and families.

So tonight's workshop theme touches on some really key leadership traits adaptability, ever-changing environments, and you have really already navigated training and clinical experiences throughout a pandemic. That has already equipped you with critical growth, leadership skills, resilience, and clearly shown your dedication to the field. All of this will help you to succeed as audiologists in the future.

It is also our goal that you connect with the larger network of trainees, and so you may have already connected with trainees that are part of either your audiology program or your LEND program. It is our goal to connect you broadly across all LEND programs or other training programs as well. We hope

you understand that you are part of a large and powerful network that is the MCH workforce, so thank you for being part of this covert, for joining the workshop tonight and dedicating your career to helping children and youth with hearing loss and other communication challenges.

We look forward to tracking you, and seeing your success throughout your careers, and really seeing all the great things that we know you will do. Though, before I wrap up, I wanted to thank AUCD, Maureen, Jackie, and the wonderful team that they've been a great job for putting together this conference, the staff working tonight better also committed all the work you do. So, thank you so much for being part of this network, and I sincerely mean it, that we can't wait to see all the great things that you will do in your careers. Enjoy the workshop.

MAUREEN JOHNSON:

Thank you so much, Lauren. Now for an introduction of the workshop topic, I'm going to turn over to Doctor Pfeiffer to introduce our speaker.

ROBERT FIFER:

It is a great pleasure for me to introduce Doctor Pat Rouch. She has had a long and distinguished career in audiologist, clearly at the University of University of North Carolina school of medicine in Chapel Hill, for the Director of the pediatric cardiology program at the University of North Carolina Children's Hospital where she specialized in infant hearing assessment, amplification for children, and clinical management of auditory neuropathy.

She's published extensively and lectured nationally and internationally on a variety of topics related to hearing in children, and has been an investigator on several federally funded research project. She currently serves as a member of the Phonak hearing advisory form, and a member of hearing the world a nonprofit foundation that provides support for pediatric cardiologists

(Audio issues)

ROBERT FIFER:

The CNV workshop to prevent a back and women, children and adults. It's my pleasure to introduce Doctor Pat Roush.

MAUREEN JOHNSON:

Excuse me, Doctor Roush, I believe you're so muted.

PATRICIA ROUSH:

I would like to thank the Child and health Bureau for support your programs into the planning committee to invite me to serve as moderator. Thanks also to the Association of University Centers on Disabilities, the AUCD for providing organizational and technical assistance. In particular Ms Maureen Johnson, and Ms Jackie Czyzia. OK, next slide please.

So, as I was thinking about what I would say to you in the 15 minutes I have to talk to you tonight, and

thinking about the EHDI environment in the setting of a pandemic, are reflected back on the past 40 years as a pediatric audiologist and I decided to put things on a timeline, basically pointing to some important events, at least for me, and pediatric audiology. They are not all-inclusive, but I thought it would take this and put it in the perspective of some of the key moments for us as we practiced as pediatric cardiologists over the decades.

And for me, one of the seminal moments was in the 1970s when I first began my career as a young pediatric audiologist in a community-based hearing and speech clinic in Kalamazoo Michigan. At that time when I first started, AABR was known, but it was not in our clinic. In fact I had to travel with the child who was deaf and blind to the Henry Ford clinic where the only ABR unit in the state was at the time. The 70s was a really important time in the pediatric audiology world for giving an accurate diagnosis, because at that time we had to depend here them behavioral responses.

Of course cochlear implants were being developed but certainly was not available at that time. In the 80s, OAE's became available which was another turning point for tools available to the pediatric audiologist, but also prescriptive hearing aids were being developed, and at that time if we wanted to apply a prescriptive formula we were really looking at paper and pencil versions of it, because it was not prescriptive methods incorporated into verification equipment. Cochlear implants were life-changing for so many children and adults.

In the 90s, that is when cochlear implants first were approved by the FDA for use with children and then hearing aid prescriptive formulas became integrated into hearing aid verification equipment.

Then, for me, these different chapters were really key moments in our ability to provide much better care for children. I really think of my career in sort of the first two decades and these final two decades.

I can say that I would much rather be practicing now and where we were in the 70s. In the 2000's, of course, you know that we had widespread implementation of universal newborn hearing screening.

That resulted in earlier diagnoses and hearing aid fitting so for me, the year 2000 was a landmark year because that was one, and North Carolina and I was practicing at that time, we first had newborn screening legislation that allowed us to have the ability to begin to serve children at a younger age.

Next slide, please. When I think about the last 20 years, there are some things that are also key and again this is not meant to be all-inclusive but certainly there were two large studies that I am quite familiar with that were taking place in the years from 2000 to 2010. After we implement exuberant screening it is important that we drilled down and tried to figure out how can we access -- assess where we are. Are we doing it effectively? There were a multi-center longitudinal studies and two of them that I will mention tonight are the child development after cochlear implementation study, which was a large multicenter study that was led by Doctor John (unknown name).

And then I was on another study that was looking at hard of hearing children. He simultaneously had these two studies going, one to look at the outcomes of cochlear implementation and the other to look

at outcomes of children who are deaf and hard of hearing.

Then, the following decade, we made improvements – improvements were made in technology and they were expanded indications for cochlear implementation as a result of what we learned from the (indiscernible) and other studies.

We began to pay more attention to mild and unilateral hearing loss. Along comes 2020 with the pandemic and so for me, my last chapter as a Clinical Audiologist took place in the setting of the pandemic.

I didn't work the entire length of the pandemic but I certainly had experience of it through the first summer. As you know, we saw missed and delayed screenings, we had canceled appointments for diagnostic services, delays and surgeries due to limitations that the hospitals imposed.

Because of the numbers of COVID patients coming in. Delaying cochlear implant surgeries, tubes, etc. As a result of that, of course we have all tried to quickly pivot and make modifications to accommodate children and families during this time.

Tonight, what we will try to do is to think of how we are able to bridge where we were, where we were headed, what accommodations did we make and what things have we learned in this process that are perhaps things that we can implement in future practice because they are good and we were able to make them better during the pandemic.

And which things will go away. Next slide. So, according to the Urban Institute's health reform monitoring survey in April 2021, even after COVID numbers had started to go down, a survey was done looking at healthcare, the impact of COVID on healthcare services for children.

Nearly one in five parents, or 19% of the survey reported that they had the laser had gone without services for their children under the age of 19 in the past 12 months over concerns due to – about exposure to the virus.

These delays were in a variety of areas, dental care, preventive health screenings, immunizations. Another thing that was learned as a result of this survey was that parents with family incomes below 250% of the federal poverty level were more likely than those with higher incomes to report delays or foregoing care for their children in the 30 days prior to the survey.

Clearly, when we look at these statistics we know that our audiology services fit right in there with these things such as preventative health screenings and immunizations. Obviously we were affected by these issues as well.

Next slide, please. So, some of the things and we will be talking about this a lot tonight with our panel members as we ask questions but some of the impacts of COVID on pediatric audiology services were parental concerns about exposure to COVID during clinic visits or during travel to clinic.

I had families that felt comfortable to come to the clinic but they had to travel some distance where their children were very frightened to even stop at the rest stop. There were concerns by the staff on how to keep themselves and the children safe.

Particularly immunocompromised children. Many clinics closed while others reduce services, and emergent or essential services were the only ones able to be provided.

We were wearing masks and how do masks impact communication for families with children who are deaf and hard of hearing? Finally, not all inclusive but in a profession where a goal is really diagnosis and treatment, with surgeries and patients could be delayed for a short period of time and how do we effectively triage and in my long career as a pediatric cardiologist this was the first time where I really felt that I struggled to think about these assistance in an ethical way to make sure that we were being fair to all of the children and families and trying to prioritize those who needed to get in quickly versus those who could wait just a bit until we could find our way out of this initial early part of this pandemic.

Next. So, tonight I know that the planning committee has given you some particular references to look at from the EDHI workshop and they listed several very good sessions that they ask for you to have a look at. If you did not have a look at them, please think about looking at them after the meeting.

I reviewed several of them and just wanted to bring up some highlights from two in particular. One was called the barriers to and facilitators of EDHI, learning from our past for a better future. This was Ursula Finland and her colleagues, and the presentations was that this past years EDHI conference that just took place.

The key points for that completion rate for screening over the years have been consistently high since the inception of the newborn screening, however success rates for both diagnostic follow-up and early intervention enrollment have lacked.

Finland et al. took a systematic review of the literature which is always enlightening for us to take a look at the work that has been done in the past and to look at the entire process.

They identified barriers to effective IDEA processes, for example social, maternal, and medical barriers as well as facilitators for effective EDHI processes, for example tele audiology -- Tele, and tailoring educational materials according to the families educational level.

These are all things that were discussed. This was a very nice systematic review that I think is really pertinent to some of the things that we will be doing during the workshop tonight.

Please take a look if you have not had a chance. She drills down, she and her colleagues drilled down to many of these issues that we will be working on.

The next case, the next presentation that was also presented at EDHI was called what factors predict long-term follow-up and delays and this was a multidimensional analysis of white and black indigenous people of color, communities who reside in metropolitan and nonmetropolitan areas.

This was done by Amanda Hogg Roman -- (unknown name), and she evaluated long-term follow-up for infants born between 2015 and 2020. I believe it was 15% who failed the newborns's screening interspecific research questions were what are the geographic and family actors that predict long-term follow-up among infants who do not pass the newborn hearing screening?

And are the factors that predict long-term follow-up...delays in follow-up, the same across different populations. I am saying long-term follow-up but I need (indiscernible) follow-up. The region of birth or residence, a stronger predictor for follow-up.

This is also a really interesting presentation in the context of what we will be discussing because there are many factors as you know that affect families abilities to navigate through our EDHI processes and the greater our understanding of them, the better care that we can provide to children and families.

I think she highlighted some really key and important things for us to think about. Next slide, please. So, that brings us back to our learning objectives for tonight.

What I would like for you to think about tonight is again this juxtaposition between our EDHI services where we were, how the pandemic has impacted them, and what have we learned and how can we move forward and what perhaps is the silver lining in the pandemic?

Hopefully all of our difficulties in life have a silver lining that we can reflect back on after-the-fact. I think that our presenters tonight will provide us with some really enlightening dialogue as we move through some of our questions. OK.

So, what I would like to do next is to introduce our panelists. Tonight, he will hear from for panelists who were invited by our planning committee to share their expertise. They are from varied backgrounds and each of them has been involved with EDHI and LEND programs. They will each take a minute to introduce themselves and then we will ask them to respond to some preselected questions.

First, we are going to hear from Doctor Samuel Atcherson. A Professor of Audiology and otolaryngology at the University of Arkansas for Medical Sciences, he is also a bilateral cochlear implant user. Thank you, and please go ahead Dr Atcherson.

DR SAMUEL ATCHERSON:

Hi, everyone! I am so excited to be with you all. My slides here – I have some things that are professional and personal and as Pat mentioned I do have bilateral cochlear implants.

As my hearing loss has sort of pushed me into the field of audiology, so I would argue that I have been in the field for 42 years! (Laughs)

And I started ever since I was four years of age. As you can see from my slides here I have been involved in a number of different things and I am still committed to advancing what we can do for

patients and families, where there is hearing loss involved.

One of the things that Pat mentioned earlier in her presentation, is it evolving technology including cochlear implants and I would say even assistive technology has advanced.

That is something that I try to stay on top of in my particular field. So, thank you again and I am looking forward to working with the rest of the group tonight.

PATRICIA ROUSH:

Now will hear from Doctor Katie Buck who is a physical therapist and mother of a deaf child and works as a physical therapist in Yakima Washington.

KATIE BUCK:

Good evening, it's nice to be here, thank you very much for having me. So, yeah, I am here to share the experience of a five-year-old child, Thomas, who is deaf. And I've been a pediatric cardiologist for five years. Next slide. So I share this first picture because Tom loves to read, and even late at night when he takes off his implant and his hearing aid, he can then get some really solid, uninterrupted time, and I just love this picture of him. So, next slide.

So, my introduction is really a bit of my journey with him. His story begins with failing his newborn hearing screen, then he passed so we were out of the woods, we were good! We even tried to protect his hearing at a concert we went to. But unfortunately, we didn't know that congenital CMV was silently-- stealing the hearing he had.

We got the diagnosis when he was 16 months, we were enrolled in early intervention and felt really strongly he was deaf and part of his death identity was signing and using ASL, which brings me to the picture in the bottom right where we went to a kids show, it was the PJ masks alive, but for Tom the real stars of the show were the interpreters, so that's who he wanted his picture with.

So, we really wanted Tom to have meaningful, easy relationships with people outside of those who can sign. So, at 23 months he had a cochlear implant surgery, got an infection and had multiple hospitalizations and complications from that. But, he did really well once the infection was gone.

He's done phenomenal with becoming bilingual, bimodal, loving reading. At age 3 he began deaf and hard of hearing preschool, and this year he is in-- kinder, and enjoys deaf and hard of hearing life in his mainstream classrooms. I'm just happy to be here and share his story and my story, and thanks very much.

PATRICIA ROUSH:

Thank you very much talked about, thank you so much for your story and introduction. I would now like to introduce Doctor Karen Muñoz who is Professor of audiology at Utah State University, Doctor Mann yes?

KAREN MUÑOZ:

So, my background is really varied and it was quite a journey to get me where I am today but I started out as a clinical audiologist decades ago. Worked in pediatric audiology and a graduate training program, then went on and got my research degree which took me in the direction of applying what I've learned in clinic to the research that I do so I have a very clinically focused research agenda where I pay a lot of attention to learning about parents challenges in the provider training, and how can we match up what parents are needing, and what providers are learning, and how can we help them have good partnerships together.

And it has brought me into tele-audiology and parent education and support. Specifically I'm looking at hearing aid management. Now that we are finding hearing loss so young, and there is so much we can do, the parents are critical partners in that, and the support that they need is an area that I felt has been important to address.

So I really look at these different factors that can facilitate how things are going for them, or interfere, and how can we help along that journey for strong behavior changes that they need to do in their daily routines so that they are achieving the outcomes that they are seeking, and the kids are doing great, and learning what they need to from their parents along the way.

It's a little more-- collocated than what it seems on the surface, but I'm excited for our discussion tonight. Thank you.

PATRICIA ROUSH:

Thank you Doctor Munoz, then we will finally hear from Sarah Sparks was a clinical audiologist, she works in a private practice called audiology outside the box, Doctor Sparks?

SARAH SPARKS:

Hello everybody, I am so glad to be here with you tonight. I did not create a slide about myself, I'm just going to tell you a little bit about myself very quickly. So, as was mentioned already, I do hold to positions, I'm a full-time educational audiologist in Baltimore city public schools, I work with children for the whole age range that the public school system serves. I am based at a high school that has I deaf and hard of hearing program, but I also have very young children on my caseload as well because I have itinerant schools.

In addition to that I do have an online audiology counseling and oral rehabilitation process called-- audiology outside the box where I see individuals and families on an individual basis, this is completely outside my connection with my full-time day job.

I also do a lot of public education with that as well. A little bit about me and how I got into audiology, I am deaf. I used to cochlear implants, I have a progressive hearing loss that started at some point after I'd already developed spoken language, which is why my speech is as good as it is. A lot of people ask, so I try to say that upfront.

But, before I became an audiologist, I was in a completely different career. I was a theology and religious studies teacher for eight years, and I think that background has really helped with my level of

cultural sensitivity, and ability to engage with people from a lot of different backgrounds as I made the transition to audiology.

In my transition to audiology was primarily motivated by the fact that, as somebody who communicates in both ASL and spoken English, I found myself continuously frustrated by the fact that I would go to see audiologists for my own audiology services, and no one would know how to sign with me. A lot of audiologists would talk to me when my devices were off and I wouldn't be able to hear, so some of those things really motivated me to enter the audiology profession and be able to provide deaf-culturally sensitive assistants.

I'm also a LEND fellow, I finish that in my final year at Boston's children hospital, and I did a year semester at LEND before that before my third year internship at Kennedy career Institute in Baltimore. I love LEND I love AUCD, and I love to be here with you all tonight to talk a little bit about my experience, and learn from you as well.

PATRICIA ROUSH:

Thanks so much, Doctor Sparks. And thanks to each of our panelists for sharing your background with us. As you can see each will bring a unique perspective as they respond to the questions we will pose to them. So, let's get started.

The first question I would like to pose to Doctor Karen Muñoz, and Karen, if you would for us start the ball rolling by please identify family factors that impact families engagement in intervention and address innovations that you feel help support families.

And I will ask Karen to start us off, and also ask Doctor Sparks and Doctor Buck to also join in on this particular question.

KAREN MUÑOZ:

Sure, this is such a great question because I feel like that family engagement is just key, you know, to how we are going to work with families and what you're going to do with them to help them on their journey. And I think what all of you probably know, I don't think I'm telling you something new, that family engagement is just critical for that day-to-day work that they are doing with their child, right?

Sometimes we can think that because they are motivated, and what they are working on is really important to them, that there isn't anything that's going to get in the way. And there really are a lot of things that can get in the way for families, and a lot of support that they may need to identify the various factors that are getting in their way, and solutions for it.

Just because we identify hearing loss early and we take steps towards intervention doesn't mean that that all falls into place. That there is this process of learning, and parents when hearing loss is identified, it can be a troubled time, parents can lack confidence in what they are trying to do at home, and may not act on some things that they need to because they are worried about how others may react, or how their child is reacting.

A lot of different things can get in the way. In one of the neat things that we discovered is, right before the pandemic we started to study, and eHealth study where we were providing parent education and support for hearing aid management through a parent intervention that we started, a six-week program where they were getting educational videos to support what they learned from their audiologist, and also weekly phone calls just coaching them and checking in on them, and helping them work through their goals. Having someone to talk with about it, like a 10 minute call.

And it was a really interesting study. We did a randomized controlled trial where half the parents just got their normal treatment as usual with their audiologist, and the other half had normal treatment with their audiologist, and this intervention. And we found that after the intervention that the parents that had this structured support did much better on knowledge and confidence in their perceptions about the hearing aids, and how often they were checking on them.

But also, during the phone calls we found that parents really like having someone call and check on them and like having someone talk about, how did it go? We were going to try to make sure you were listening to the hearing aids this week? Did you find the care kit? Do you know how to use the listening stethoscope?

Some of that accountability that walked them through was really valued by the parents. And also because the pandemic started halfway through, parents would tell us yeah, the audiologist office is closed, they handed me your firestorm hoping you can help me. They didn't have anywhere to turn, so the silver lining I think that we saw was that this was a really important way to reach parents when you can be in person with them and help them through a period where a lot of parents didn't know what to do and just needed someone to talk to and walk them through.

We also learned from families that they live far from their audiologists and didn't see them very often, so it was really evident that there's a lot of opportunity just in standard care that we can be implementing tele-audiology to provide that frequent, consistent support while they are learning, and get them off to a good start.

So, that was I think a really important insight for us about how we can help families engage and really support them along the way with the hearing aids. That's what we focused on.

PATRICIA ROUSH:

Thank you. And you know Karen, I've been listening to you, and just thinking about how much information we have to impart for families and that initial visit, you know? It sounds simple, right? To the layperson, that we are going to fit a hearing aid on the baby and here's the appointment to do that, but I am always struck whenever I would do a hearing age fitting on a young infant, just the number of details that we were expecting a family to take in and that one session, so it makes perfect sense that some carryover is really important, and the kind of approach that you are taking seems to me like a very worthwhile one. And I can certainly understand why you are finding positive outcomes with that.

I wonder if Doctor Buck might respond to this same question from the parents perspective? And then feel free to also comment from the perspective of a professional as well?

KATIE BUCK:

Sure. Yeah, I think I really appreciated what Doctor Munoz had to say when I thought about this question, I thought about trying to match the schedule to the acuity and the intensity. For our child he was really a late diagnosis because he-- we had concerns at nine months, but he didn't get the hearing test that really gave us results until he was 16 months. That was his sedated test.

So when we had that new diagnosis, that's when we were really motivated, let's get in, let's do all these appointments, let's get those hearing aids, get everything rolling. So, there's this period of intensity from the family where I think they are suddenly onboard because this new thing has been revealed for them.

And unfortunately what happened with us is that, since we were late diagnosis, we were then competing for appointments with a 10-year-old just getting a hearing aid check follow-up because he wasn't a newborn, there just wasn't the intensity coming back that same direction, so that's one thing I would love to see. Because it was really hard. We were really ready, we wanted all the appointments come all the hearing aids, all the stuff, and we couldn't get the appointments. There was a big barrier there.

It was exciting to hear about more virtual audiology or opportunities that have come about from COVID that will allow people to kind of build more connection when they are in that hot period.

Uncensored died down they have an established relationship and they are using their devices. I think about that especially for a family like mine. We have to travel to and 1/2 hours to see our audiologist so it is a big commitment.

The other thing I think about with family factors, the things that we had going for us was that we were lucky that we had services in our native language, being in a similar kind of parallel profession I knew what to expect when attending appointments.

I knew how the system worked and that we had adequate means to pay. So, I took all of these things for granted but on the flipside is what would it be like if I didn't have those things.

It would be a massive barrier. I think it is always worth thinking about, thinking about family factors and engagement and how to engage families of how do we get more professionals and providers who do have lived experience and some other cultural pieces and languages so that there is a nicer, better buy-in there.

And more understanding of what our patients are going through.

DR PATRICIA ROUSH:

Those are great points. When I listen to you I think about the fact that we have got this great group of LEND audiologists, and around the country, I am particularly familiar with the program here at UNC LEND trainees have often been involved in digging down into some of these issues.

For example, one that you raised is being able to get an appointment, and we tend to take an approach often of a one-size-fits-all as opposed to recognizing that even in a clinic, an appointment isn't an appointment isn't an appointment. There are ways to look at systems to try to problem solve and get some of the issues that you were raising.

That there was a priority to get their child in but you kind of go to the bottom of the list and stand in line with may be something that is much more routine.

So, evaluating things at a systems level are some of the things that we are going to be continuing to talk about I think this evening. Doctor Sparks. Would you like to weigh in on this question as well?

SPEAKER:

I definitely agree with...I wanted to mention more about socioeconomic status. I can personally relate to this as well because I grew up in a very poor area, Eastern Kentucky, and I now work in a school system with a very high poverty rate as well.

Baltimore city Public schools. Due to both of those experiences in my life, I think it is really important for professionals to understand that when a person is poor, experiences a low socioeconomic status it is not just that they don't have the funds to pay for things but there are lots of issues that compound in a person's life.

Thinking about some things that come up in the pandemic specifically, if there is less public transit because fewer people are taking public transit, some of these people, their way of getting around is not going to be as efficient as it once was.

It will be harder to get to the audiologist with their child. Work schedules have probably shifted for people who are in careers such as food service, other kinds of jobs that have continued to work and have even picked up with more work during the pandemic.

Some of those things have really shifted lives for the families that I work with. I joke sometimes that I do more social work on some days and I do audiology. I certainly don't want to suggest that anyone do something that is going to put themselves outside of the scope of practice for our profession but there are things that we need to do as audiologists that lean more towards the social work side of things.

For example, I have needed some time to sit down with families and help them plan a public transportation route to get to the audiologist, then call the Clinical Audiologist for them and say that we have planned this, it is going to be a bit different than what they are used to and they might be late. Please don't turn them away if they come to the appointment late.

I have done that. There have been times when I have worked with families to make sure that they get their child's hearing device to school even if the child is not using it at home. There are times when I have suggested that we leave the hearing device at school instead of taking it home.

Certainly the ideal would be that the child is using the hearing device at home as well as at school but has one of my favorite professors in my AuD program used to say, the perfect is the enemy of the good.

I think that is important to recognize. Sometimes we have to think about what is the next step that we can actually do to support this family rather than focusing on what is this perfect ideal that we are hoping for.

DR PATRICIA ROUSH:

Thank you. Great points. OK, let's move to our next question. I would like to see if Doctor Buck would maybe kick us off. Please describe innovations that you have seen or been involved in generating or implementing which address equitable access to care. We have touched on not a bit today.

KATIE BUCK:

Yeah. A good flow of the questions because here we are. As a provider, a pediatric PT I work in an area that has a low socioeconomic status and so a lot of our school districts have been really challenged by the pandemic and a large portion of our households did not have Internet access prior to the pandemic.

So, once everything kind of shutdown and they decided that let's try this virtual school thing, document a lot of kids were not going to be included in that group.

So, it was very neat, there was some very creative solutions and ways to try to get kids at least some time being able to be connected to their friends and classes and learning opportunities.

On district, locally, actually parked their school buses in different areas in the town and those served as Wi-Fi hotspots.

I don't think that the kids did like their whole curriculum by tuning into those but it was at least one way to access because without it there was no Internet access.

I thought that was a very interesting repurposing of the buses. Our own school district that our own kids are in, they just quickly went to and they had been planning on it anyway, having laptops for each student.

I think a lot of districts have done that but I also realize that I am talking to a really wide variety of people. Maybe there was not his money.

That really help our students and our schools because then each kid had better equity to be able to access. They also included Internet access with that if you did not already have it.

The nice thing for me working at an outpatient clinic in our development will center was that suddenly all of our families were able to use that same laptop to access Zoom to do their sessions with us. So the nice wonderful service that the school did by providing those laptops then gave that family access

to all of their medical providers.

In a much more robust way. Considering they were not able to go and see any of those providers. Again, kind of eliminated that transportation barrier which, you know, there's always a new barrier but that is at least one that we have a hard time with your that was able to be minimized by technology.

DR PATRICIA ROUSH:

Our school district did something similar also, and again, you think about silver linings in a pandemic. I think that unfortunately a lot of us are guilty of not really having that awareness of oh, look at how limited we are even in the United States with Internet access and so I think that was one of the things that was really highlighted as children had to leave school and go to their homes.

The great number of children in our country who are at a disadvantage even in regular times as compared to children who have those – who have laptops at home, access to Internet services and so on.

It just highlights another area where we learned I think from the pandemic. Doctor Muñoz could you also respond to this question? Give some of your thoughts?

KAREN MUÑOZ:

Yes. One of the things that we were really interested in in our work from the E health study was looking at tele-audiology for Spanish-speaking families. One of the studies that we are currently working on his throat the US, talking with Spanish-speaking families about not only hearing aid management but the receptiveness to tele-audiology and getting support and education through the Internet, finding out how much are they using the Internet and would they be interested in getting some services that way?

And, what we are learning so far, we have got 11 families that we have talked with and we are not quite done recruiting. They are definitely interested in it and luckily so far everyone has a smart phone, everyone uses the Internet, everyone is receptive and wishes their audiologist would talk with them about it.

We are getting some really positive indicators from parents who are Spanish-speaking, they come here from a number of countries of origin in Central and South America, live in various states throughout the US and I think it is an opportunity for equitable access to care.

Often times I think audiologists are little bit afraid of tele-audiology, it is maybe our comfort level that keeps us from going there is much as it is the receptiveness of the parents and kids.

I am encouraged by that as an opportunity to help them have more access to consistent communication and care in the ways that we can offer is for pediatrics at this point through tele-audiology. There is more and more that we will be able to do but at first we have to see it as an opportunity to work with the various populations that we see.

I think it is another silverlining thing that we have got.

DR PATRICIA ROUSH:

Thank you. Let me pose the question and then I think I will ask Sarah to please respond to this question first. From your perspective, what has been the greatest impact, positive or negative, of the pandemic on your ability to provide care to children and families?

SPEAKER:

Sorry. Yes. I think one of the positive aspects of the pandemic is that with more people being accustomed to doing things online, there has been a lot more interest, at least in my experience, from parents forgetting troubleshooting support and other kinds of supports online rather than needing to go physically to the audiologist.

That has broadened some business for my all ability -- Audiology Outside the Box business. More importantly it has given the parents they work with a little more confidence that they can do some of these things at home on their own with a bit of support and training from a distance.

And being able to empower people in some of those ways has felt great to me as a professional. I think one of the most negative things about the pandemic's impact on services for children is that parents are sometimes a little bit less likely to notice when their child is experiencing a delay or some kind of red flag for a problem.

If their child is not interacting regularly with other children, it might not be as obvious if some of those interactions that might happen in a nonpandemic world are not going in ways that are typical for the child's age or for what is expected.

Some of those things have come up in my work with parents, starting to notice a little bit later than they might have otherwise. That their child is experiencing some nontypical development.

DR PATRICIA ROUSH:

Great. Doctor Muñoz.

KAREN MUÑOZ:

Yes, and I hearing our late recognition with hearing loss without the signals, particularly with the mask wearing we had to go through that it's easy to say is because of the situation or that situation, we are at a risk of missing a lot of children during this time. And one of the things I've heard over and over again is your mold replacement challenges, and I think we are past that, people can get back in the clinic, but that's been a huge barrier and audibility, parents actually being able to get in and take care of it, or the shipment of getting it back in time, the periods of time they are going without it. Those are some of the challenges I've seen that are really impacting audibility.

But positives, I think are lots of opportunities that can step in and help, for some of the challenges parents can help you learn to cut that your mold tubing if it's a sent directly to them, something normally that we would say come into the office we need to do that for you. I think that as ways to show how to be more flexible in ways than our habits may have been in.

DR PATRICIA ROUSH:

And I think those of us who have been working with families in pediatrics, whether hearing aids or cochlear implants, there's a big difference when we are trying to troubleshoot everything in an auditory fashion about little pieces, and what goes where, and how to describe pieces, and families don't always recall that this is the ear hook and this is the tubing, and this is the factor mold using those words.

And sometimes what is a 20 or 30 minute conversation could be a quick five minute fix if you could actually see what they are talking about. So, certainly for me thinking about doing more via zoom with families particularly those from a long distance is a silver lining. And Doctor Atchison, feel free to jump in even though I'm calling on others. You are assigned to certain questions, but feel free to jump in, I know you've had some experience in particular with face masks, so feel free to jump in.

DR SAMUEL ATCHERSON:

I was going to see if I could jump in on this question, I'm not strictly in the pediatric setting, but I have had communication with families around the state of Arkansas. Remember, the pandemic force everyone out of the schools, out of their places of employment, into their homes. And then when schools continued, parents needed a lot of help not only with using online platforms to keep their kids in school, but the ones with hearing loss, hearing aids, cochlear implants, they needed help in figuring out how to minimize background noise and figure out ways to connect their devices to the computers.

So, I say that as one interesting positive, and that was, to actually get parents to think about technologies. And, in terms of going to these online platforms in zoom and FaceTime in Google and all that stuff, what we also started seeing as a positive is the drastic improvements in closed captioning.

That doesn't mean every thing is perfect, but it's sort of forced everyone around the world to pay a little bit more attention to captioning. And, it just certainly made things a little bit more accessible. So when people ask, no one questions it anymore.

On the negative side, I would say the obvious is facemasks, since you bring that out. The obvious negative is that all of these facemasks that were manufactured up until this point were obscuring visual cues to the lips into the mouth, they would be surprised some people can read facial cues from the cheeks moving up and down.

And so, also at the beginning of the pandemic there was an obvious shortage of medical masks, and so people were very interested and motivated in crating cloth masks, and some creative innovators who would like, "but I need a visual mask", but if I'm now able to make my own class masks if I could include a thin piece of plastic or film that might allow people to see my lips.

So, that actually spurred some research at my laboratory that then became a positive. In the positive is that, prior to 2020, no one seemed to care about transparent masks. In fact, the association with medical professionals with hearing loss have had this is a pet project since around 2000. And it just forced everyone to start thinking about it.

Of course we have some engineering and technical issues to overcome, but we are in a much better place now. And all I want to leave you all with is, even though mask mandates are going away, we now have products that are available on the market that we can maybe put away, and we know that mask users are not going to go away in many hospital clinics.

So, that's a positive, in spite of the negative. And that being an obvious accessibility issue.

DR PATRICIA ROUSH:

Thank you, thank you. Those were great points. OK, let's move to the next question which is regarding late identified hearing loss. So, late identified hearing loss, and late onset hearing loss persist as challenges for early identification. Can you share your experience within the last two years with supporting children who enter systems of care later?

And then a sub question here is, did you have a problem monitoring and following up with these children, based on a known risk factor, because of the influence of the pandemic? And Doctor Bock, since you had particular experience with your own child with late identified hearing loss, if you would kick this one off for us?

DR KATIE BUCK:

Yeah. So, some of the answer for me on this one is a little bit of what I talked about earlier, with that intensity that families feel when they get a diagnosis. And then trying to match that to scheduling. And actually being able to get in for the subsequent visits.

And so, I think part of it for us was feeling really frustrated later that had we been identified as a newborn of having a hearing loss, there would've been guidelines of testing by one month or three months, there's a progression there.

But again, since we were nine months old eventually 16 months old, is like where to that intensity go? Why is that intensity not there on the other side of it? Because we were still feeling that. We went through all this process with her own child's before COVID was around, so I wonder about how long it would've been had we not had someone actively involved in person, because we were getting our early intervention services, and they were coming to our home, they were coming to our daycare, but had we been late identified and only had virtual services for our early intervention, I just-- I know we wouldn't be where we are with learning ASL, being able to communicate in ASL, even with being able to kind of push the medical team along with yes, we want the hearing aids, yes we want to be scheduled for the cochlear implant appointment, even though we aren't sure were going that direction, just being able to push.

Like I said, we did all this before COVID, and it was hard enough. And that was knowing the system. So, yeah, I really hope that having a virtual platform for many of these kinds of appointments will help families to better be able to access certain services.

DR PATRICIA ROUSH:

And again, I keep coming back to systems level issues, thinking about in our own clinic, the larger the volume of patients that you have, the easier it is to not pay attention to some of those details. And it may be that the audiologists who are providing care would have viewed it as a priority, but it hasn't come to their attention because the families interface is with the front office staff, and it comes back to how do we educate front office staff to be aware of things that are urgent.

For example, sudden sensorineural hearing loss is an immediate urgent care. Were; with anxiety because their child has hearing loss associated with CMV that is prone to progression, so when that parent calls saying I'm worried that the hearing of my child has changed, that rises to the level of getting someone's attention to get them in.

Again, it comes down to being sure that we were taking the time to look back on our systems, because that can be the weakest link. The scheduling office can be the weakest link. These are the kind of things I think are important to look at. Doctor Sparks, would you please also respond to this question?

DR SARAH SPARKS:

Yes. So one of the themes that has come up in this conversation a few times is the confidence level of parents that we are working with. And in a situation where a child is late identify that can be a significant not to appearance confidence. Not only as a child deaf or hard of hearing, but a lot of parents have guilt about not noticing signs sooner, or maybe noticing signs, but deciding that it could wait, that it didn't necessarily need to be checked out, or some other reason for feeling guilty related to the child being late identified.

One of the things I think is really important to emphasize with families in this situation is what we can do now. What we can do to support them now. I think it can be really tempting for families and sometimes providers as well to think about what could have been for the child if they had had earlier services, or how much better things might be.

And some of those things might be true, but the reality is we will never know. What we know is what we have before us now, and what we can do to support that child and that family now. So, and a lot of conversations with families of children who were late identified, I tried to keep the focus on what is it that we can do right now? Rather than what do we wish that we had done in the past.

I think that that is very important. I actually have a child right now on my caseload who is a kindergartner. Adjusted his annual audio logic assessment for school, he was thought to be single-sided deaf when he was in preschool, before the pandemic. He hadn't guarded his annual audio little assessment because the pandemic he was three-year-old and preschool the last time he was assessed. When I assessed him this most recent time he actually has hearing loss in his better ear now, and his parents feel incredibly guilty about not having gotten him to clinical audiologist since he couldn't get his assessment at school while the schools were all virtual. And I needed to do a lot of careful discussion with the family to make sure that their confidence stays up for being able to manage the situation, and for being able to support the child.

Because the last thing I want this family to experience is such a lack of confidence in their abilities to

manage the situation that they end up not doing anything about it. And that does sometimes happen with families, so I think that's important to consider. We do want to make sure that we're giving families as much information as they need, but we don't want to overwhelm them, especially if we are giving them news that they consider bad to the point that their confidence sinks really low.

DR PATRICIA ROUSH:

I think that's a really good point, Katie and Sarah. We certainly need to keep those feelings of the family at the forefront, and we know that families who are confident in their ability to provide care are going to provide better care if they can feel good about themselves and their ability to navigate these systems, so great points.

OK, so this next question we are going to direct to Doctor Atchison and for others involved with LEND training. For those involved in LEND training, please describe how the pandemic may have affected your ability to work with trainees towards achieving the LEND training competencies in pediatric audiology? And then a subpart to that question is, where you required to make special accommodation to the audiology students to attend the training curriculum during the pandemic?

DR SAMUEL ATCHERSON:

This is dramatic and triggering. (Laughs) Prior to the pandemic, we had gotten comfortable with doing things over Zoom but we were also blessed with being able to go to 10 different clinics in the central region where we are. Of course when the pandemic hit land was shut down to an extent that we were forced to do everything over Zoom.

All of the clinics were closed and I would say that lasted for probably a good 18 months. So, fortunately we were able to still do some work with families. I don't know if you have heard our group talk about this. We do something called solution focused learning.

Our target demographic is primarily children with autism. Fortunately, during the pandemic we continue to work with families but rather than having them come to campus and visit us we just communicated with them through Zoom or the families told us what their needs were, the LEND trainees would take on topics based on their needs and researcher needs -- research their needs and then the week later they would present the resources to the family.

That is what we were doing in person for years. We were just forced to do this all completely virtual. The other thing that I would say is -- because we weren't meeting in person one of the things that we did differently was re-created pop-up lecturers.

When we started getting comfortable with Summa and doing prerecorded lectures we provided new opportunities to do things like that. -- Zoom

They could set up public lectures to continue the education of our trainees. When things started lifting backup and we were permitted to go back to our clinical sites the only real change I think happened was we were still forced to wear a mask about some of the faculty asked me questions about transparent facemasks.

Which they would use with some of the children. We weren't just thinking about hearing loss but interactions with the children. You wear those masks, they are pretty intimidating. If they can see her smile they might be...more likely to interact with you. So, I guess that is in a nutshell how we have been doing things.

We are really hopeful, fingers crossed, that next fall we will be back in person again. We really miss each other. (Laughs)

DR PATRICIA ROUSH:

And I will also respond to that question because I was in our pediatric cardiology clinic then and our clinic is based in a hospital ENT clinic and so like other centers, we had to prove it and there was a period of time where our audiologists were sent home except for just a couple that were rotating in for urgent care.

It was a relatively short period of time and then of course during that period of time we could not have students in the clinic but really I would say it was a time of about six weeks and then the clinic started to open backup. Our students were able to come back but there was some variability depending on the type of setting that it was.

For example, our developmental clinic took a longer period of time to open back up as you are saying. So, we want to make sure that we have enough time for our LEND trainees to take their case studies and get into their breakout sessions. I am going to skip to our last question and ask any of you who would like to jump in on this one to offer some advice to future audiologists and were there other changes that you think were made that we can carry forward for other strategies that you feel would be helpful in supporting families and colleagues during this time? Doctor Munoz?

KAREN MUÑOZ:

Sure. I would like to put a plug in that is really important as future audiologist to recognize that you have a role in the education and support, I know Doctor Sparks set a bit of social work in there.

Looking at how we support people is really important and that's just false writing to person and family centered care and I know that you probably all learned about that. If you would like to individualize things for each family and really help them along that road we need to embrace that.

And understand evidence-based counseling and what does that look like in the work that we do? So we can really help support them in overcoming barriers and doing the things that they want and need to do for their child's intervention. It is something that is really well-recognized is important to do but harder to do than it sounds.

I would say really recognize your role in that and see where your learning needs are.

DR PATRICIA ROUSH:

Thank you, Karen. Doctor Sparks.

SARAH SPARKS:

I definitely agree with all of that. The counseling pieces so important and so many AuD programs emphasize the informational counseling piece without emphasizing the personal adjustment counseling piece but that is a really important part of what it is that we do.

Don't be afraid to engage in that. There are some great resources out there on how to do really good personal adjustment counseling as an audiologist and in addition to that don't be afraid to be creative.

If you think there is something that a family needs and you can support them with that need, I would encourage you to consider is our role that you can actually have in that thing? My example with helping a family plan a bus route.

That is not something that is exactly within the scope of practice for an audiologist but is not something that is an ethical violation and if I help a family to do that I don't necessarily have to say social worker, please do this with this family. I can do this.

Think about what are the things that you can do and what are the things that you cannot do. There are certain things that are not things that we typically do as audiologist but that we can still do to support families.

DR PATRICIA ROUSH:

Thank you. I can see why your practice is called Audiology Outside the Box. OK. Doctor Buck.

KATIE BUCK:

I have two things that I would love to share and so one is just letting – I guess sharing that our life was so positively impacted by the teacher of the deaf that worked with us. -- Deaf

We were able to move on to the choices of interventions. So, for us it really felt like we needed to know him and who he was as a toddler in our house with our family and what sound meant for our family and what having a lack of sound meant for us.

Individually. Once we understood that then we felt really confident to make the decisions about what interventions were going to be the best fit for us.

So, that helped us to be compassionate to him when he was struggling with trying to wear the hearing aids and we never felt pressured even though we knew that it was really important.

We also never felt apathetic about it didn't work. We really knew him and we understood who he was and what he – what we wanted for him. Just making sure that there is always that team aspect.

It is not just up to audiologists, but it is up to everybody. That kind of leads into almost the second piece of what I want to share of what comes a little bit more from my professional hat, I can't quite separate them all away.

But we have these systems in place and they are what they are and they are doing fine in a lot of ways but are not perfect. It is just what we have.

All of us as professionals are compelled to always be thinking about how can it be a bit better and what can we do, what is our role in moving it forward in advancing it? -- And

Before going through this journey I kinda thought the medical systems were there because they had it all figured out and they do not. (Laughs) It is all of these wonderful programs like LEND that really get us closer to what that figured out is.

DR PATRICIA ROUSH:

Thank you. OK, Dr Atcherson? Do you have a quick response? Feel free to...

DR SAMUEL ATCHERSON:

I don't think I can top what the other three panelists said. We can move on.

DR PATRICIA ROUSH:

We will be happy to have our parent on the panel see the last word because that is what we are all about. We appreciate very much that perspective. I think we will turn it over now for the introduction of our case study. Thank you all so much.

It was a great discussion.

MAUREEN JOHNSON:

We have a quick chance for some questions from the audience. If you would like to ask any of our panelists, moderators questions please put them in the chat or used to raise hand feature.

Going once, going twice. OK! Oh, I see one question coming from Alexis. I see that you are muted.

SPEAKER:

There you go! Sorry about that. My name is Alexis and I am in audiology, fourth-year extern at WHID, I wanted to go back to some of the advice given for telehealth within pediatric audiology. I know since it is such a new thing that is coming out I feel like I am not the point where it was not something that was explicitly addressed in the training in a classroom setting.

And in my current placement because of Medicaid and insurance barriers it has not been something that we have been readily able to use. I was just hoping that maybe we could touch on some basics are ways to start for people that don't have that experience and easy ways to implement that for pediatric hearing aids.

KAREN MUÑOZ:

I can address. That is a great question and one of the things that we are doing in our clinic, it stemmed from the study that we did, we had created a little program, I don't know if you have seen the website

heretolearn.org. We have a provider guide on that and it is in English and Spanish. It is a structured way to use telehealth after a pediatric hearing aid fitting to support the learning process and coaching. We have implemented in our clinic and are now using that as a supplemental hybrid approach with families.

We are also doing a little bit more with checking on hearing aid use and partnering with parents on that. They can look at data logging on an app and that can be a part of talking with them about what they are seeing on the optimal supporting them that way.

I think we will have more directions that we can go in the future with it but we are starting with what I think is the low hanging fruit, education and support, we can do that.

That is what we are at.

SPEAKER:

Thank you.

MAUREEN JOHNSON:

Thank you so much for your question. Now we are going to move on to the small group case discussions. If you have further questions for our panelists you can put them in a chat and we can address those at the end of the workshop. I am going to pass it over to our intern, Meredith, to give some quick instructions about this activity.

MEREDITH BRAZA:

What a rich discussion! Thank you again to our panelists for doing a wonderful job representing their own perspectives and we are hoping that as trainees we can all kind of come together in groups to discuss the case and maybe apply some of the things that we learn to do that case from this evening.

So you are going to have the option to join the breakout room. Please choose a room with people from other programs if possible. This is a great opportunity to network and to meet some trainees from other areas in the country.

We are going to review the case study within our groups. That is presented on the next slide and we will link it in the chat as well. We are hoping that in your groups you can discuss considerations for the case. We have some questions that you can use as a guide in your conversation.

We're just hoping that you can pull from what we learned in this session to analyze the case. We are going to be using Jamboard as a resource to capture ideas and we will link that in the chat as well.

I would love to turn it over to Doctor Bob Fifer who will introduce this case, I believe it is based on a true story. So, take it away, Doctor Pfeiffer!

ROBERT FIFER:

The case in hand focuses on a two-year-old who was born with (indiscernible) and petechiae at birth.

This child had no other symptoms beyond that. The family lives in a rural area of Florida and must travel approximately 80 miles each way to obtain audiological and ENT services.

We monitored, not my clinic but generically. We monitored hearing sensitivity on a regular basis with the belief that the child probably had site amygdala -- (indiscernible) based on that -- the symptoms. There was a sudden onset of moderate sensory neural hearing loss. The child was provided with appropriately programmed hearing aids for each year.

We continued monitoring and got the child enrolled in IDE part C program for early intervention, and at 28 months of age, the right ear dropped again and a decrease to a borderline severe to profound hearing loss across all frequencies. The right ear hearing sensitivity stable at that time. What we want to consider consider the logistics of travel challenges and further changes in hearing sensitivity the other factor we would like for you to consider, how would you counsel a family on decreasing your income and future what if discussions to make plans should the better ear become worse.

Maureen, I will turn it back to you for a moment to divvy up the breakout rooms.

MAUREEN JOHNSON:

Thank you so much, Doctor Fifer. You should see a function at the bottom of your soon console that has breakout rooms with a red dot, and please feel free to join any room, especially those that we see with other trainees from programs that are not your own.

Also, I want to note that room one will have ASL and CART captioning. And I want to note that those in room one, I will join shortly as soon as I help people get into their breakout rooms.

And if you need help getting into a breakout room, stay in this main room and that will get you there.

DR PATRICIA ROUSH:

Hey Maureen, it's Pat. Let's see, am I supposed to be in room one, with Bob? Let me try clicking join.

AMY SZARKOWSKI:

certainly welcome the chance to engage a little bit. If you just joined us, Jeanette is with us and she is kindly assisting us to use the Jamboard so we can throw out ideas and she can capture them there.

SPEAKER:

I think the first thing that comes to mind for me in counseling and what if things get worse is talking a lot about kind of troubleshooting from home. Maybe the hearing aid is not working as well versus a true change in the child's response. I've worked with families of young children and also adults that you like their hearing has had this big change when maybe they just need a new hearing aid so being able to troubleshoot that, I want to be confident that is this a matter of troubleshooting the device or something that we really want to new diagnostic equipment in?

AMY SZARKOWSKI:

Fabulous answer, that's great. And how reassuring it must be if you say let's just troubleshoot and then

they figure out it's something minor they can clean out the wax and find OK, we are in a different place than we thought.

Let's see if one of our panelists have an idea they would like to add, that we can follow up with a response, OK? So Sam or Sarah, do you have any thoughts to contribute to the case?

DR SARAH SPARKS:

Something that I was think about is there needs to be a lot of careful counseling with this family, because we don't know what's going to happen with the child's hearing sensitivity going forward. And at the same time, we want to make sure that we don't overwhelm and frighten the parents, so we need to take some time to really plan how we are going to talk with the parents about the possibility that their child's hearing could decline. Not even necessarily progressively, but potentially very suddenly, such that they are prepared for that possibility.

So, that's definitely something we need to be thinking about.

AMY SZARKOWSKI:

You certainly show that in your strength of your responses as a Palis, knowing how to engage with families and sharing the information that they need to share. Training programs may be variable in how well they train that and how comfortable fellows feel in taking on those kinds of responsibilities.

Sam, how about you?

DR SAMUEL ATCHERSON:

I'm still struggling with the travel issue. And even though there are appropriately programmed hearing aids, and I agree with Doctor Sparks, just thinking about how to tread cautiously moving forward, assuming there is progressive hearing loss. It's just like, I'm thinking about the now, what if something happens to the hearing aids, now my biggest concern is making sure that there is audibility.

So, I'm not from Florida but in Arkansas we do have some resources available where specific providers may contract out to be able to go to the family rather than the other way around. And that's just something that you're going to have to explore in your specific state.

Yeah, my biggest concern is making sure there is audibility, and we don't really know the dynamic of the family and how comfortable they are with troubleshooting. I'm starting to think about things like, what's the best way to communicate with them?

AMY SZARKOWSKI:

Great questions, and I don't think you don't necessarily need to be in Florida to have that challenge. There are lots of places where access to services are minimal or really far distances between service providers.

DR SARAH SPARKS:

Going on but Doctor Atcherson just mentioned, it's important to consider whatever state you're in,

whether Florida in this case or in your actual state, what are the telehealth laws, and what are the laws that are pertinent to seeing patients in their home setting rather than in a clinical setting? Because those things are going to vary from state to state, and that is something that I found out a lot about when I was sorting out my online business.

AMY SZARKOWSKI:

I will add that those things can change very rapidly. April 1 I received any mail that said our telehealth policy has changed as of today, so this is what's going to be happen going forward. That doesn't give a lot of notice for the families that are -- already on your schedule for the next day, but it can change like that. So being aware what the rules and laws are governing services you can provide in staying on top of that. Good.

SPEAKER:

Another thing about trying to contract out, I'm currently in LA, but I did my grad school at the University and we have a lot of families that were in this position with her educational audiologist may not be able to do their hearing as regularly, but they can do your mold fittings and tuning changes where it was this intermediate person who is not providing the full range of services, but was kind of closure to follow-up visits.

AMY SZARKOWSKI:

It's also interesting to consider the people who might be in charge of that. Certainly in many states, I'm in Massachusetts, and there aren't that many educational audiologists, so lots of teachers of the deaf have that role. So also thinking about as emerging future audiologists, or people who are new to that field, how might you be working with people who might have different levels with different kind of training that are still involved with supporting children who have reduced hearing in accessing sound and accessing academic experiences.

DR SAMUEL ATCHERSON:

And over talking about a child is 20 months, that's only two years and I'm already think about future educational implications, and how to prepare families for that transition, you know? When we usually think about transition we think about transitioning out of childhood into adulthood, but there's a lot of things going on right now and no one can predict what's going to happen.

So, just speaking from my own state, we have the Arkansas hands and voices chapter here and we have a very successful guide by your side program that is in part state-funded, and so those are opportunities to send other parents who have children with hearing loss to perhaps work with those families and whatever communication will they would like.

We certainly have opportunities to educate children in the spoken language format, or we have a school for the deaf here where the language is primarily American sign language, so those kinds of conversations need to begin sooner rather than later. Again, treading cautiously as Doctor Sparks had mentioned. But, time is not on this family's side. They are going to have to get this child ready for school, regardless of what happens.

SARAH SPARKS:

Something I would add to that is to consider what the opportunities are that are available both throughout the state and more locally to the family.

I like to frame things not in terms of options that the family chooses from but opportunities that the family has to expose their child to language. Ultimately, what we are hoping for is for the child to develop a solid language foundation which is going to help their cognitive skills, social skills, and all kinds of other things.

Their mental health and so forth as they grow. I think that particular framing is one that I have come to use because it is something that I think families can really get on board with, the idea that supporting language development in general can support their child's healthy trajectory throughout life.

DR SAMUEL ATCHERSON:

That was so eloquently stated, Doctor Sparks.

AMY SZARKOWSKI:

It was! I've had the opportunity that families feel torn because they were informed about a certain approach and so this idea of having opportunities and the more opportunities the better. I also find that when families, you talk about things like helping your child's brain to grow, that is embraced in a way that feels like everyone wants to do that.

That is different than making a choice that you feel is going to limit other opportunities. So there can be empowering ways in which we use the language that we talked about with families.

Fellows, do you have any other responses to the case or questions that you want to ask of our experts? I see a couple people in the taglines that say that they are from Florida. I am wondering if you can speak to this case being situated in your context.

SPEAKER:

Just to let you know we have 10 minutes according to Maureen.

AMY SZARKOWSKI:

Larissa!

SPEAKER:

I am from Brazil but I am doing my externship in Florida and I think all the ideas are really appropriate, I was thinking about any time these services (indiscernible) as well, driving 80 miles to see an audiologist.

A provider that is closer that could monitor the hearing sensitivity of the child regarding the Florida early steps. Be a part of the early steps program and we see a lot of technology challenges. As Doctor Sparks and the others were speaking, telehealth has so many positive things but there is a challenge to use the Zoom feature with the camera.

Having this help and access to reliable technology for the family would probably be something to look for. Yeah. I think that is my side for now.

AMY SZARKOWSKI:

Thank you for sharing. Alex?

SPEAKER:

I was curious – I accepted a job in Florida and I was just curious if this kid had other health needs or other appointments and if there was a way that we could try to care coordinated a little bit and say we understand that getting into the office is challenging but can we maybe schedule around some of your other doctors appointments that you may or may not have.

I know in Washington we see children around his age every six months until their fifth birthday so that might be an option that parents are comfortable with and interested in having.

AMY SZARKOWSKI:

That is a really great point. Lots of places have care coordination or social services that can be in place or cultural brokers if the cultural background of the family is different than most providers.

Maybe there are people that can join them and advocate for making sure that things are scheduled in a way that allow and optimize the families possibility of getting to those appointments. All really important. Tory?

Anything you want to say her comment on or question?

SPEAKER:

I have a really loud air conditioner. Did you call on me? OK! One thing that I have been thinking about with this case is I am in Portland, Oregon, and Oregon is really rural and we see people driving seven hours to see us all the time.

The way that our clinic is set up – which I know most clinics don't have the availability to do this but we don't really have set appointment times. We let the appointment run for however long the family needs to be seen and we are really lucky in that sense.

I have been thinking about this family would really benefit from being able to have appointments that don't necessarily have strict timelines where they can really go through all of that counseling and talking about not even what is going on in this moment but the future steps.

Because it seems like they have really significant barriers to being able to come in at all.

AMY SZARKOWSKI:

As a former Oregonian I certainly applaud that effort and can speak to the long distances that people often will travel for things like health-related care. I think that sounds amazing. I haven't worked in a

system that had no appointment times.

It does seem to be family-friendly. I have questions about how that works and how you get around that with administration but I think it sounds really great and it is very family centered. Nice.

SPEAKER:

I am not sure if this applies but in Florida, what we see – we have a Hispanic and Latino community that is very predominant so in placement we don't usually turn patients away if they are late because the traffic is very crazy and we also see that culturally, the timing works a little different from the Hispanic and Latino communities.

Versus American culture. So, we see them anytime they actually get in.

SPEAKER:

Some of these families have to take an Uber and then catch a bus and on the train. All of which adds more and more time for them to potentially get delayed. So, it is always nice to be a little bit flexible with the time that you start your appointments and sometimes the time that you allow the families.

I did some of my training in Idaho and what we did with our rural community who came hours is that we would have a set appointment time were we talked about things but then we told the family that our time is up, however we understand you came along way so you could go get some lunch, talk about this, think about this, if you have any questions or concerns, come back.

And we will have one of our providers see you so we would often times have patients learn about orientation, leave for a little bit, only to come back later that day and ask us about going over the orientation about this one more time.

And one of our providers or older students would break away and go and talk to these families about whatever questions that they had. I thought that was really great for families like this that have to travel really long distances to get healthcare.

AMY SZARKOWSKI:

That sounds so great. Think about how many of us have left appointment and in which they asked something. And trying to follow up with the provider after an appointment can be really challenging. I love hearing about those kinds of flexible approaches and really thinking about children and families first.

It is fabulous. In our last couple of minutes, do we have any other comments on the case or about your training? Questions for Doctors Atcherson or Sparks?

One of my tangential thought is related to developing in one's profession. Thinking about when I was a postdoc I met Dr Atcherson and he may not even remember but he was an invited guest to a small conference that we had here in Massachusetts and now he is a Professor and tenured.

Doctor Sparks also did her externship in the place where I am and now I see you are thriving in doing these amazing things. For all of you that are trainees, time flies faster than you think/you get older faster than you thought you might.

And it is really wonderful to see the field develop and grow. And you might be in a trainee position now and feel like some of those things are distant but you have certainly the potential to make that a really big impact.

DR SAMUEL ATCHERSON:

Also a reminder of how small our world is and how we cross paths. (Laughs)

AMY SZARKOWSKI:

Yes! (Laughs)

DR SAMUEL ATCHERSON:

Good to see you, Amy.

SARAH SPARKS:

It is always good to see both of you.

DR SAMUEL ATCHERSON:

At AAA?

SARAH SPARKS:

I could not get off work.

AMY SZARKOWSKI:

New job and all! Some of you too may be in the job market. Note that it is OK. Not always in the moment, when the bills are due but eventually, usually it is OK.

Hang in there.

DR SAMUEL ATCHERSON:

Oh, it will close on its own unless you are dying to get out of here.

AMY SZARKOWSKI:

Thank you for joining in our chat and sharing your ideas! See you back in the main room.

(Main Room)

MAUREEN JOHNSON:

Welcome back! We hope that you had some great and fruitful discussions in the breakout rooms for the case study. We are going to do a quick little large group debrief.

I would like to know what did you learn from the panel discussion that you would bring back to your program? We are going to share the link to the poll again for you to answer this question. As we wait for answers to trickle in, I want to again thank all of the wonderful individuals who helped make this workshop possible.

That includes Doctor Pat Roush, our panelists Doctor Atchison, Buck, Doctor Sparks and Muñoz.

Thank you to those who spent time in our planning meetings, faculty, staff for their support as well and participation. Especially Lauren Ramos for the introduction as well as our AE CD staff helping with the breakout rooms. We want to thank you all for the workshop and we do have a workshop evaluation that we would love for you to complete if you can please find it in the Lincoln the child.

We will also send it out to all participants in emails. The resources will be available within one weekend -- one week of the workshop.

Languages share all the responses to our question. -- I am going to

We asked what did you learn from the panel discussion to bring back from your program? We see that you are saying creative family centered care, learning is continuous, anyways to support our patients no matter the distance or the circumstances, always put the family's goals in the forefront, the importance of including the family and the conversation.

Reading what the family is actually asking – reading what the family is actually asking about one counseling, listening, critical nature of touch points outside of audiology clinics.

Again, ways to build off of new purpose, previous knowledge, research into new innovative ways that support our changing field. That is a great way to leave off. Again I want to thank you all for joining us for today's workshop. Have a great evening!

SPEAKER:

Thank you all! It was great to see everyone.

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