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[PLEASE STANDBY FOR REALTIME CAPTIONS]

>> It thank you for being here today. My name is Carol Sampson. I am the room moderator so if you need anything let me know.

There is an exit behind you and in front of you, there is an exit in the back of the room. We will go ahead and get started. Today we will hear about fostering family engagement through cultural humility. Thank you.

>> Hello everyone, there are still seats. There are a couple of seats in front and some of the middle. We did have a session yesterday talking about the same topic so today we will give you the nuts and bolts, but if you went to the keynote she basically told you everything.

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She did a marvelous job in fact won of her slides look like this one. I am Dr. Sampson I work in the teacher preparation program also work with the Colorado home intervention program.

I will let Mike too presenters introduce themselves as well.

>>

>> Hello everyone I am Robin. I am one of the Colorado hearing resource coordinators with Colorado home through the Colorado school for the deaf and the blind.

I am hearing the Metro area.

>> If you don't realize how tall she is.

>> My name is Christy and I am a research professor at the Institute of cognitive science. I am also a professor of Department of speech language and hearing sciences also at the University of Colorado at Boulder.

Today will focus on through cultural humility these are the objectives of the presentation today and you will be able to provide example of how and you can talk with your intervention families.

Lastly we hope you will be able to modify your early intervention strategies to include more responses after the morning session and the afternoon session together.

>> Why is cultural humility important in early intervention. Mostly the United States population has really become increasingly diverse with many families speaking languages other than English in the home. With fact calms unique beliefs and traditions and language and rituals.

Culture is believed to be the fundamental building block of identity. It brings a strong sense of community. Believe, understanding and trust amongst community members. It drives activities, values, expectations and routine within community members and it has specific influences on the viewpoints for disabilities and deaf and hard of hearing related traffic.

It can also impact developmental norms that may be different than what we are accustomed to hear in the United States.

Because of this it is even more critical that we work towards becoming more culturally -- humility that's what I'm looking for -- think about all of this as we go through the presentations today. We have in the United States each year. In 2023, almost 50 million immigrants weren't living here in the United States so that makes up 15% of the United States population

They found the top three countries and it went through California Texas and Florida.

And these numbers don't include the immigrants that were turned away at the border trying to get into the United States or removed by immigration and sent back to their home countries.

Here you will see where the immigrants have come from over the past two years and you can see most come from Latin American which comes from Mexico, North America and South America. That is pretty much followed by folks from Africa, India and ( indiscernible ).

Now we need to think about what is true. I know we talked about it briefly a couple of slides ago. But it is important we understand what cultural means and how it impacts our family, us and our work with our families.

As I mentioned before

We have hearing and other disabilities that varies from culture to culture and even within the same country.

And and top of this this is visible to you. Holiday custom, and things like that. This is just important if not more important there is differences towards disability and different thought processes.

>> Here we go again. Somehow I managed to, I can open it now.

This web site, so the website I'm going to show you is God MDC research.net and that stands for Miriam down center.net.

If you go to the top, this is just for resources. It is supposed to say multicultural but the web person shortened it. So it says multicultural.

If you go to the black bar, it starts out with language information for providers. I think I have 21. I have a lot that I am trying to get on but I haven't had the time. You would think in retirement I would have the time but it actually hasn't happened.

I can show you what this looks like. There is language information for providers and families. Language information for providers. I can show you what that has.

These are the different languages and that is more like medical information. This is just for parents, general information about general health in multiple languages, developmental milestones written in these 21 languages. Intervention tips for reading language.

This one is really great if you get a family and you know absolutely nothing about their background or the country they are coming from.

If you go down to cultural and history there are a lot of websites including this and every culture. You can look up the countries and it will tell you do they have early childhood education. Do they have any services for disabilities. What are their -- some things -- the only thing you have to remember is you can't really generalize by contrary to any individual family but it at least gives you a place to start.

A lot of people come to the U.S. from other countries are the minority populations in their country. You will at least know what their country offers that then you can fill in the rest of the information, the rest of the information from the family themselves.

I will show you this example of Arabic for example. You may know Colorado has amazing sheets for supporting reading and language and they have it in many languages. They happen to have this one in Arabic.

The Montréal Children's Hospital has a lot of information in Arabic. There is the information. This is how children learn language. First words. Different milestones in speech and language.

May also have developing websites that give you material, music, children songs and books that you can download online in different languages.

Just to give you some resources, it doesn't cover all of the languages but quite a few that you can see.

I showed you that website because it gives you information. Parents in India they always speak fluent English.

There are many languages within India. They have parents or grandparents watching their children who don't speak English. You can assume because someone can communicate with you in English they would prefer to have all of their information also in English. I do have some resources and some you can e-mail me because I could not post them and I've used it with interpreters to train them because you cannot assume that an interpreter knows the vocabulary from our field.

If it is language they know it. But even things like play. We have a definition in American culture of what play is but a lot of families will say we don't play with our children but that's actually not true. What you talk to them they talk about little games and songs they do. They talk about how they teach children different things but they don't call it play.

They may just call it childcare -- childcare but when you say play with them it is child to child and adults don't do that with children. A lot of times they will say we don't do that. Our English words are not always translatable and understandable in other languages. A lot of times you have to probe.

Let's go back to what do we call what we are doing. For anyone who has been in the field for a while there's probably at least, all of these or half of these terms someone as used in some training that you have had.

We never really get culturally competent. There is just to many in the world. We can be competent.

Sensitivity may be appropriate but the reason we got to the cultural humility is because we know we can be competent. We know we are trying to communicate with people on the level that is appropriate for their cultures.

At the same time what is culturally done may not be consistent with things we are trying to teach.

For example things like directive. When you're trying to get conversation. Some cultures children cannot conversationally initiate anything with an adult. That is a weird concept to them and that is what we are trying to do. What we are first trying to do is parent initiation but by the time they get to page two you want the child to initiate, it happens in other cultures but when you talk about it as conversational turn-taking, it is not appropriate in many cultures where a child to initiate a conversation with adults.

They get confused even though it occurs within their culture. Sometimes with the culture humility you're trying to explain something and you actually have common ground. But when you use the words you use it comes across different to the family.

Early intervention professionals engaged in self examination of their own personal culture. That is when we get to a place of cultural humility. They are then able to enter into relationships with the family with the intention of honoring their beliefs, customs and values.

In that process they can become culturally responsive. That is basically our goal to have cultural humility and to be culturally responsive.

That's actually difficult because all of you come from a culture but in the United States it is an overlapping of many cultures. Many of you come from cultural backgrounds where your grandparents might've been emigrants like my grandparents were immigrants. Then they kind of became accumulated with the culture but you still have layers of that culture and some of your values and priorities come from that.

One of the things Robinette on the slide but she didn't talk about was outside of the immigrant population we have subcultures within the United States. We have Hispanic and Latino cultures and they're not the same.

If you are Cuban or even when you emigrated, when your family members emigrated to the United States, the political situations, all kinds of things could have changed at the time when your families actually came your.

We have indigenous populations we have African-American populations.

We know there are different marriages amongst cultures.

Another thing I said and that is definitely hard of hearing leaking -- regulators.

Different organizations who have deaf leaderships they have some relationship with early intervention and they are not on their.

Deaf and hard of hearing indigenous. Deaf and hard of hearing black Americans. Deaf and hard of hearing Hispanics.

When you are working with populations, if you can connect them with an adult from that culture the difference that that makes, it is not something you can explain but there is an immediate connection because they come from the same culture. They feel a connection because there are enough overlapping things about their family and the deaf person that you may be able to introduce them to.

We got into this at the workshop when we were talking about how in some cultures they have superstitions, they believe deafness is a curse.

One of the things we talked about is how do you begin to combat that.

One of the things that has been most successful is bringing in deaf and hard of hearing adults.

They have a concept of what deafness means and it is not what you when I have experience from their countries.

They have been educated their deaf children. They are not allowed to go to the same schools or universities parity they have never seen a highly educated deaf adult. They haven't seen them in the professions.

Just by giving them that experience you can change where they are coming from.

Let's get back to cultural humility. It is a lifelong process of self critique.

Whereby the individual not only learns about another's culture but one start with an examination of his or her own belief and cultural identities.

Sometimes it's not fair in fact we were talking about this. Sometimes a family takes one look at you. You haven't done anything. You haven't said anything. You have had absolutely no interaction with them, and there's something about you that ticked them off or they feel like they can't trust.

In many cases they don't even know that. I think anybody who has been in the profession long enough and seem different families has come across these situations where the only solution was to find another interventionist. Something about you didn't work with that family.

We can't do anything about that except to try to find somebody else that the family can connect with. I actually had that with one family who had adopted an Asian American deaf child. For some reason this child had experienced a lot of trauma from the country they came from and they took one look at me and the child retreated to the corridor.

There was nothing I could do about it. What I needed to do was have someone else come in because I couldn't do anything about the way I look. He just identified me with a very traumatic experience.

And practicing cultural humility rather than learning to identify and respond to a specific trait, the provider develops and practices self awareness and reflection. I will tell you that working well with one family is working well with one family. The next family you get, all of the things that worked may not work with the next family. You may have to go back to your toolbox.

If you're lucky all of the tools to work with lots of other families but you will find places where it doesn't work that well.

Here are some questions, we actually did this in precession, we asked you what is your current comfort level working with families of other cultures. I think it is almost impossible this day to not have a family who is culturally different from you.

I think it is an impossible scenario now. We have so much diversity in the United States. Which cultures have you worked with? And how has that going for you?

Sharing information with one another is a really good thing because there's probably another EI professional who struggled with another culture and can share information with you when you happen to get a child or family from the different place.

What challenges have you faced with these families and cultures. Things like not wanting to wear a hearing aid. You can't generalize to everybody whom you think is from that culture that they are all going to be the same as the person who had trouble with hearing aids. Maybe they had trouble but it wasn't a cultural thing.

One of the families we dealt with they would put the hearing aid on the child and we finally had this conversation and it was because the hearing aids were the most expensive item they had ever possessed in their live, and they were so afraid that if they put it on the child and the child lost it, that we would think and judge them as being bad parents so as a result they didn't put the hearing aid on the family.

Then we had to explain we have insurance for those things. Let me tell you all of the stories about what happens with lost hearing aids buried in the sandbox. Thrown out of the window. One of them went down the toilet or was dropped in the toilet and the mom put it in the oven to drive.

A dog aided. Just about everything you can think of can happen to hearing aids. Once you realize what the problem is that you could actually deal with the issue of what the problem is.

Family engagement. We are trying to become partnered with families. Even that concept is an American Western concept. A lot of the world as very hierarchal structures with teachers and medical professionals. This idea that we want to engage family and we want to be an equal partner is a foreign concept to a lot of people. They don't understand that because that is not how it works in their countries. Then you have to do a lot of cultural explanations with them, we were once hierarchal but we are now and why did we change and things like that.

Trying to gain trust is your first job and it is the hardest job you will have with these families.

Understanding perspectives, beliefs and values. Most families don't expect you to be an expert but they do expect you to try. They do expect you to respond to them.

It's a good thing to just admit your ignorance that you don't know a whole lot about their culture. You would be mortified if you did or said anything that was an insult in their culture and with a police tell you and educate you about their culture because you don't want to do anything wrong. You are doing -- just to get on a level with the family where they feel like it is okay to trust you, that you do understand, you don't have the knowledge but you are trying.

Even viewing themselves as expert's. That for some families can be like no, you are the doctor, you should know, even though you are the teacher not the doctor.

Audiologist get this all of the time as do teachers. Including the whole family. Many have roles of different members of the family and other people they are not -- that is not their role.

When you start changing their roles within the family it can be very uncomfortable.

They may come to the same conclusion, maybe they are working two jobs. Maybe they have another family member or an older child or a cousin and that is the person who does the primary caregiving. You need to know that. Because if you don't you can't prepare well for them.

Allow for unbiased information sharing and you should help to empower and to support family members. The level of involvement will increase as time goes on. This is a really good research. It has five different areas. Twenty-five questions. I can takes you to where you can see it.

We don't have time to go through all of this but I would say go to this link. You should be able to -- this is the last slide. Interpreters and cultural brokers, I was surprised people didn't know who cultural brokers were. They are people who are knowledgeable about the country and the culture of the person.

There are some trained cultural brokers we have used in Colorado. And obscure countries where there's not many people in the state you may have to find somebody else. In one case one of the providers, the only person spoke the language was an uber driver. They had to arrange the sessions around the driver's schedule otherwise there was no way to communicate with the family.

Cultural brokers they can be other teachers, audiologists, physicians, there are trainings, you should train them about your expectations or what they can and cannot talk about with the families.

You don't want them doing a political discussion about a situation in their country and how Americans feel. That is not appropriate.

There are some things just as interpreters, you want to train the interpreters.

We have been fortunate to have the spring Institute in Denver where they have been supplying us with the common languages with an interpreter who stays with the family from the beginning of early intervention until they graduate out of early intervention.

The Colorado intervention program has been able to train the interpreters on the curriculum so they know what to expect. That is the best model when you have a good working relationship with an interpreter.

Honestly the best thing is direct language. If Spanish is the primary, secondary language the more Spanish-speaking interventionalists you have the better will be. What you say and what interpreters say is not always the same thing. You definitely have to learn how to say one or two sentences because our biggest problem is we talk to much and by the time we are finished talking the interpreters trying to write down things and they can't remember what we have said.

There are different techniques you need to learn to work with an interpreter.

Don't talk to the interpreter talk to the family. The interpreters there as the telephone not the people you're working with.

I think we have covered this. Don't forget sinking. There are lots of resources and other languages with songs and games. You just need to direct the parents to them.

There are children's books available that you can download from many websites and languages from all of the world.

Just because the library doesn't have it doesn't mean you won't find it.

>> I just wanted to add I find it useful to ask the family, what song did your mom or dad sing to you when you were little.

And can you share that with your child.

is set up trying to come up with other songs that might be in their language I find it best to go with what the family as used.

>> Absolutely. There are some amazing things that the family as use. Cartoon characters and other languages you can find on the Internet. Employing culturally linguistics is really important. The more you have the more appropriate your services are going to be.

It is an ongoing process. We have been training on this topic, I have been here since the early 70s we have been training on this topic for that long and we keep training because it is a never ending process. There are so many different cultures in the world.

>> Sorry about the confusion. When we did this we did a longer workshop yesterday. We had different parts we worked on. So when we talked about what we would do today got confusing. Thank you for your patience.

The next few minutes we will talk about what I call Monday morning takeaways.

After we sit and listen what do we do with that information.

I will ask you to talk to neighbors in small groups around you. We don't have a lot of time. I believe if you don't talk about things and integrate them into what you're doing we don't learn anything from what we have talked about.

We will go through the questions. We have talked about what is cultural appropriateness and how do we get there. The first thing we have to ask is how do you decide if what you have planned to do that day is appropriate.

I know when we talked about early intervention we were talking about going into the home and doing what the families already doing. But we still have our goals and our objectives and the things we want to work on.

I want you to turn to the people sitting next to you and answer this question. How do you decide if a lesson is culturally appropriate. I will give you 30 seconds.

Okay, I will bring you back together. The worst thing as a teachers to stop a good discussion. I think we will continue in as we go through the next questions.

Now that you have talked about that, how do you decide if something in the home is related to culture or not.

This morning, April said everything that their family experienced was related to some kind of culture from the grandparents, to the marriage of two individuals to the child they had borne.

We could say everything is culture. But if we think about interacting with families who may be different, how do you decide if this is cultural.

I will give you some time. If you didn't talk the first time switch your partner so you talk this time.

You guys are really good at this. I hope that gave you a sense of how complex this is. There wasn't one answer. There isn't one thing we can identify. We wish we could say we figure this out. What we have to figure out is how do we do those two things. How do we decide something is cultural.

In my mind, someone said to me if the child is not being harmed. If there's no harm to the child then you should not assume that something is wrong or bad. You should assume there's a different reason why they are not putting the hearing aids on. Many things might be cultural. The page that Chrissy just showed you with the 25 questions you're not going to go into the home and asked those questions but we will go in the home and start discussions it either as direct communication or with competent interpreters who can help you figure those things out.

We cannot be competent in all of these areas but if we recognize our own biases, our own lack of understanding then we will be more equipped to meet families.

Chrissy already talked about the next one which is family engagement does not mean the same to all people. An overview of a family invalidation -- my engagement we have a pretty good idea of what we want the family to do but that does not mean it will work for the family.

Chrissy also shared how to find cultural examples and activities. You just have to get it with other people who are doing the same thing.

Won't have time to talk about boundaries interest today. That's very critical.

I want to look at the next slide. In early intervention we know we do the family assessment and the coordinator asked all of those questions. Tell me about your routine for the day. Tell me how your breakfast goes. If you're like me I hate those. You people asking those questions I would be unhappy.

The important question at the end is how satisfied are you with that routine, because that is when we can listen to what the parent says.

As the intervention which -- is a child still being fed and they are 3-years-old and you're thinking where are the motor skills or other self-help skills, but if you say to the parent how does reading time go for you anything that is very, it's really important for the assessment to look at the family's needs, not what Western screening has told us is age-appropriate or where the next milestone should be. Not everyone follows the same trajectory.

What's important for us to understand is EI practices don't have to be in competition.

If you look at the far side all of those activities are important but they are very culturally based the great part is we don't have to teacher model what we believe is important in those areas we just have to follow the daily routine of those who are already doing it. That is where you can really focus on the cultural aspects for that particular family by asking them what does feeding time look like for you.

Are you able to have good conversations, do kids eat first that will show you what they expect.

If you will just turn to your partner and pick one area. Just think about in your mind a family that you work with. Pick an area, what cultural aspects came into play in early intervention when you were trying to discuss one of these. You have 30 seconds. Dance were working with your idea of how feeding should be or how dressing should be or you're following the guidelines that children should takeoff their socks by a certain age, that may not be that important and we do know that children catch up. So Robin gave the example of a 3-year-old who wasn't feeding themselves but guess what all adults in that culture know how to feed themselves.

It might really be okay that this 3-year-old isn't feeding himself because probably he will catch up.

Of course some of you are thinking I know this kid, we have to watch for signs but if we are following the lead of the family, and one thing I like to do is ask the family. How are cousins looking. How to cousins feed themselves. Would do the cousins look like or or what do the cousins look like. Then parent started to say but because it was a few month soldiers is really doing different things that my child, that is when you can say when the culture and the actual level of the child might have a little bit of a different spirit

What we know is the sequence actually seems to be the same. Timing and expectations differ. Incompetency. When we consider successful at one level may not be successful in another culture. Chrissy brought this up and it's important in April said this, in the morning when a woman thought she walked under a ( indiscernible ) in her third trimester.

These things really happen and you have heard these stories where moms and dads don't know while the -- why the child to step so they look for reasons and what they have already believed in order to help with the guilt and with moving on.

Somebody in the workshop set out you get past these things. Maybe are not the right person to do it. Maybe you need a providers will be work with the family. There are positive aspects of why you might have a child with a difference and then there are negative impacts. You can understand that if I think this is because my ancestors did something wrong why did something wrong, the way I interact with others will look different than if I think this is a blessing from God.

Before you question why are they wearing hearing aids, you may need to know does everyone now know that I did something wrong as a parent even though you have sold me ten times put it is. That will love my belief and putting hearing aids on it's going to put a stigma on me and my family. You can look at this online. We want to leave you with some key elements that involve culture. If we could just go back to what the other presenters talked about earlier. T cultural humility. And we have to remember who were therefore and it's not us. We are therefore the family. I will cultural humility needs to leads was working with the families in order to get them engaged. We are only there one hour per week.

They are with these children hundreds of hours over the week. We are out of time. We will be here for a few more minutes of someone has questions.

Thank you for coming and have a great conference.

Next conference

[PLEASE STANDBY FOR REALTIME CAPTIONS]

>> Hello guys my name is Liz I work at the medical center where I am a team leader for the medical team. I'm also the director for the inpatient pediatric services. That is how I split my time. I will be talking today about a publication we had in the past year about protocol for children with cleft protocol that were seated our center.

I will either get done quickly or we will be short on time. You will just ride with me.

To get started I updated my slides, I don't have any disclosures. Just a really brief overview. Cleft palate is a birth defect that affects four-seven weeks for the lip and six-nine for the palate.

For purposes of our study today I will have cleft lip mentioned just because a lot of the data we obtained those hand-in-hand. But we will specifically be talking about cleft palate and the effects.

Just a few numbers for you guys. Around 2006, 4440 cleft lip verse per year. Out of those it has been shown around 90-97% has ( indiscernible ) within fusion with cleft palate. That is not numbers for the cleft lip population.

They did a study that showed children experience significant vocabulary decline developing next to their peers. And it can impact the development of their vocabulary skills across all children not just cleft palate population.

Common causes and risk factors for cleft palate would be genetic, smoking while pregnant, epilepsy medications during the first trimester, diabetes and obesity during pregnancy.

We will focus on genetics. A few of these you guys are familiar with. We are assuming if you are in the room it is of interest to you. I do want to give a disclaimer for non- medical practitioners in the room. When we talk about syndromes here, that is some characteristics but it does have usually three different things you can classify it with and the cleft palate and the tongue and your dislodged tongue.

We do have that sequence in the air because those can be associated with the sticklers and this can be diagnosed from infancy up to late childhood.

This is also known as golden heart. So this is also known as the George.

Really quick because I did this study with my partners over at Vanderbilt Children's Hospital. This is their little portion of the study where we do give a brief overview of cleft palate. Typically there are tubes placed, around nine-12 months.

When we did the review that looks like it is the norm, over 90% of patients at the time of their repair which is three months was shown to have infusion in their ears.

Two caveats there. I will tell you if a plastic surgeon is repairing their lip they don't look at the ear. That is not part of their medical practice. This is specific to those who prepared the lip and the palate.

The average of three sets of tubes are the norm. And we see the ear infections requiring tubes decrease around six-eight.

I find it interesting, if you're unable to predict the severity and I find that interesting because when we have a cleft palate it could be in your heart palate. Typically when we have a complete cleft palate that means none of our structures that are around the tubes are working to open and close those. That been leads to this and I have always found that interesting and we have talked about this.

There is some evidence that earlier closure of pallets will be associated with infusions. Although evidence -- I'm sorry there is no associated benefit of repairing the pilot earlier there has been limited data to show us it may influence resolution of your problems. There are different types because we only have 25 minutes we will not get into that. It's not within my scope to give you that, but if you find that interesting there are journals on that.

A brief overview of our role.

They said all babies need to have a screening by one month of age and we need to have an ideology diagnosis and interventions by six months for interventions that meet this we need to strive for 123 and our center we do meet those guidelines, so we are on the one, two, three pathway with the other caveat being babies that we cannot test prior to that timeframe.

Let me sum it up for you. Right now our current recommendation is nine months for a child. If a baby has cleft palate they are going to be referred, hopefully by nine months of age.

I'm not going to read this paragraph but it is within that statement that is basically saying if there are concerns, then we should implement intervention sooner. That is typically seen in Down syndrome and cleft palate.

As you can probably see and we know this we are not really meeting those guidelines. They kind of get put into this bucket. But it is not what we should strive for, taking this whole population of patients and saying the first months of your life will have impaired hearing if the families goal is to clearly have appropriate acquisition.

I wanted to look at the conductive hearing loss in pediatric patients with cleft palate prior to the repair.

It was a retrospective cohort study. It was at our institution within the craniofacial clinic and we had the inclusion criteria. The people did receive testing and those who did not have permanent hearing loss.

Exclusion was children who did not have pre-op testing. We will talk about that. That is a big just quickly, there was no statistical significance between the characteristics and sex, race and type associated with genetic syndrome. Also the newborn hearing screening and this was the group that before we put this into place, this was just the before group. And if there were concerns for fluid and hearing.

This is the diagnostic portion of our workflow. For us this means we did testing while they were admitted and then we followed on a three month basis. We did implement interventions for our babies who were diagnosed with hearing loss at three-six months. That is not the purpose of the study but I will talk about that at the end.

The difference is if the babies pass the screening we did not wait to test them we bring them at three months to a sleep baby ( indiscernible ) and we would apply interventions and then if we did not measure hearing loss, we would do some form of testing to see if any food was present at that time. And we can look at the anatomical differences.

The results were a lot of patients passed at birth did not differ between the enhanced and standard protocol.

And before we were testing it was the same as the amount of patients that were being tested.

So infant to pass but demonstrated hearing loss on subsequent testing also did not differ between the two protocols but I want you to note that those kids were getting tested way later that our enhance protocol kids.

If we were to measure the mild-to-moderate hearing loss that occurred around eight-nine months that was several months later when we were catching that.

I think the biggest thing to look at is over next bullet of patients who pass the screening in the enhance protocol. 48% had conductive hearing loss identified by three months of age. 20% at it by six months giving us a total of 68%.

They were diagnosed with conductive hearing loss after a newborn screening prior to the recommended nine month follow-up.

The next two points is what I want to talk about between the standard enhance group. Of the standard protocol of all of the patients we look that there were 45% that receive no preop testing. Of the enhance protocol we only had 4% of the patient is not received ideology testing.

Think about how that data can be a little skewed when we are looking at -- there were no differences between past or severity and the data set could be different. I want to touch on why that is. Every center will be different.

So, we are so lucky. We have plastic surgery and partners working together. However as we said before plastic surgery has a whole other medical background that does not include looking into the ears and diagnosing middle ear or fluid. You can imagine you can imagine the 48% there.

Even with their backgrounds, we were following the backgrounds. There was no referral to us unless the pediatrician was concerned and they required a preop or there was parent concern so. And they noticed significant improvement. It was prevalent in cohorts well before the recommendation. Increased primarily and hopefully it leads to sooner testing than what was currently being done.

How we mark it is mild and then mild-to-moderate into different ranges. If you do it, you know you have mild and moderate being the most common. And speech and language development is something we wanted to consider we know with that we can have those delays and it is important to note when we're talking about cleft palate were not talking about anatomical articulation disorder.

We are talking about receiving language and therefore being able to express it, not any anatomical based off their unrepaired or repaired cleft palate.

We also know it can affect our cycle and social development.

Proposal that we hope will happen is we can increase the evaluations in this population have been seen at this age.

That will take you to the limitations and retrospective data in the single institution study and I would like to say, I'm sorry it is not here, our enhanced population was tested in September of -- November through September 2021. Covid. Even something as big as cleft palate was being considered a nonmedical emergency surgery.

We could have hopefully seen more with that. That is a limitation I forgot on the initial slides.

And also at a referral center. We do have more I see you admits but with that there was no statistical significance and what we saw with the cleft palate population. I don't feel that is a true limitation. And they age out of it and your access to reschedule them is pretty difficult to get.

This is a lot. I'm going through the full study. This is what our interventions are in addition to our testing. This is showing, everything I showed you. If we measure this we are going to give them a referral, give them interventions and give them a social worker. We will treat this like a long-standing hearing loss that the hope and what we see is these babies actually abnormal hearing after the pallets are prepared and the tubes are placed if they are not associated with a syndrome.

Our interventions at Vanderbilt, I wrote a letter, a proposal and we actually had a generous donor give us ten initial soft bands, I will talk to the family until counsel and fit them with that device.

We will do another six months to show we are still showing here fluid and we will have the family return for follow-up visits.

The reason we picked this we did not -- keep up with the families were going through. They're going through so much. Especially if they have lip they have to come every week to help taping or molding of their lip prepares adding this and my baby is not feeding I have the wrong bottle nipple, this is it working. You can imagine the data logging and what we do is make sure all the families feel at peace with this, if they do have lip by don't fit them until live prepare that way I have time for them to say thank goodness the little part is done and now I can move on and we are still hitting our guidelines.

If we and see if it has changed. And when the baby hopefully has normal hearing they gave me the device back and I recycle it to another family and if they continue to have hearing loss then we do more testing and we also start consulting our genetics counsel and then we get them their own personal devices.

That is all the citations from my study that I used during the paper.

If you have questions, I think we have five minutes.

>> They do only if a child have special circumstances. There is a lot of literature that shows the earlier the tubes the more they will push out the tubes and the more they will have been there in years. And in general we have several EMTs on our team that feel if you keep placing tubes over and over in these it will cause more of the conductive hearing loss because the tube is extruding. We can have them continue to do scarring. It's not a good practice they want to follow.

They are putting tubes in it every three months. It's also hard to get tubes in a three -month-old.

Anyone else

>>

[ Away from microphone ]

>> No, because they are naturally sleeping at three months. Any baby I have fitted with a Baja that means they have shown hearing loss. And we are doing it like this. And it is not always perfect. They carried fluids for nine-12 months. That is draining. I have had to create additional protocols to make sure we have people that don't go home when it starts we can have suctioning of the years.

We have two more minutes. Anyone else?

>> You may have said this. When you talk about preoperative testing available. What are you talking about. Are you talking about the tube and the cleft repair?

>> We focus only on cleft palate repair. The lip is only important based on the devices I want to put on the child. So if it's going through taping that is when I think about it. When I say preop that is when they are getting their tubes placed.

>> Thank you for coming to listen. I hope you have a good rest of your conference.

[EVENT CONCLUDED]