Webinar on Language Deprivation

Moderator

Thank you for joining us. This is part of a series that celebrates the 75th anniversary of the establishment of the World Federation of the Deaf. For your information, on the topic of accessibility, this will be broadcast in International Sign. There will be spoken English interpretation. We also have captioning in English. There are Zoom captions and an external link for you to watch captions in a separate window. We will deal with questions as much as we can at the end of the webinar, after our panel discussion. If you are joining through a phone, you may not be able to rearrange the screen as you might want to.

I invite some opening remarks on behalf of IDA.

International Disability Alliance

Thank you very much for the introduction. A very good afternoon and a warm welcome to everyone. If you missed the previous two webinars, please do watch them. They were a really rich discussion. I am with the International Disability Alliance. For those who are not familiar with our work, we are a global alliance made up of OPDs. Our work is to advance the rights of persons with disabilities and ensure the implementation of the rights of persons with disabilities.

I wanted to reflect briefly on why this conversation is so important, particularly within the framework of us celebrating 20 years of the Convention on the Rights of Persons with Disabilities. As many of you know, this year marks 20 years since the CRPD was adopted. IDA has been having a lot of conversations in regions with different constituencies about what it has meant for people with disabilities: what are the gains that have been made, where have we seen progress, has this progress been across different disability areas or are there ones that continue to be left behind, and looking at whether, when we see the CRPD has been implemented, is this only on paper or are we seeing the lives of people change, and what should we prioritise in the coming years. I think this is an area that is important. It is promoting the linguistic identity of deaf persons, but for a lot of us in our countries, sign language is still not a recognised language, and where it is recognised, laws and policies are not necessarily implemented, and so it is not a reality. A number of deaf children continue to grow up without access to sign language, particularly at a very early stage, where it is so

fundamental that children have access to this, and that has a bearing on the enjoyment of other rights in the future: the right to education, employment, accessing health and so much more. This is such an important issue to be discussing and I am really glad that the WFD is taking the lead on this particular topic. I'm really looking forward to the discussions and to learning more about this issue and what we could do more of. And really thinking through with everybody else how we ensure that this right is realised in the next 20 years of CRPD implementation, but also how we build alliances across movements, so that our allies that work on linguistic justice and minority rights and all these other issues around language are also able to articulate the particular issues around language deprivation for the deaf community. Thank you, everyone, and I look forward to a very enriching and great discussion.

Moderator

Thank you very much for your kind words. We value the long partnership that we've had between the World Federation of the Deaf and IDA. I'm going to hand over to our first speaker of the day, who will frame the topic: the President of the World Federation of the Deaf. He will explain why it is a linguistic and human rights issue. Over to you.

Dr Joseph J. Murray, President, World Federation of the Deaf

Thank you. Thank you to IDA for their opening remarks and for our continued partnership. This year the World Federation of the Deaf marks 75 years. Since our founding in Rome in 1951, we have said the same thing in many ways: deaf people have the right to their sign languages. Today we're going to look at what happens when that right is denied to a child. Let me start with what language deprivation is not. It is not a consequence of being deaf. A deaf baby is born ready to learn sign language, like every other baby. A deaf child who grows up with a fully accessible language, a sign language, from birth reaches language milestones on time. Our speakers today will show you the evidence.

Language deprivation happens when a deaf child does not have full access to language during their early years, when their brain is built to learn it. It is caused by the choices made around the child, not by the child. Most deaf children are born to hearing families. Those families often hear about their child's deafness from a doctor or an audiologist. Too often they are told to wait. Wait for a hearing aid. Wait for an implant. Wait and see when speech develops. Sign language is presented as a last resort, if it is mentioned at all. Meanwhile, the months and years pass. By the time the child goes to school, the

most important window for language acquisition has already narrowed. That is why the WFD treats language deprivation as a human rights issue, and a serious one. It affects thinking, learning, mental health, relationships and the chance to take part in society.

This issue is not sign language versus auditory technology. Deaf children have had various implementations of this technology throughout the years. It's not an either/or choice for families. Sign language gives children full access to language from the beginning. Technology can be used to aid and supplement their linguistic development. The World Federation of the Deaf sees language deprivation clearly as a human rights issue. Again, it affects thinking, learning, mental health, relationships and the chance to take part in society. Language deprivation is preventable. What we see is adults who are deprived of language at all. It's not only an issue to do with deaf children. We have a higher incidence of depression in deaf adults who have been deprived of language. You have depression, anxiety.

The CRPD, or the Convention on the Rights of Persons with Disabilities, states very clearly that sign languages are languages. Article 2 includes sign languages in its definition of language. Article 24 requires States to facilitate the learning of sign language and to promote the linguistic identity of the deaf community. Article 30 recognises that deaf people are entitled to their specific cultural and linguistic identity, including sign languages and deaf culture. Taken together, these articles mean something simple: a deaf child's access to sign language is not a therapy choice, it's a right.

In 2023, at our General Assembly, members approved the Declaration on the Rights of Deaf Children. It is short and clear. Every deaf child has the right to a sign language, the only language fully accessible from birth. Parents, carers and families have the right to free instruction in their national sign language. Every deaf child has the right to protection from language deprivation. Not providing access to sign language is discrimination, and Article 10 says all these rights must be implemented immediately and without delay. Why immediately? Because a deaf child's early years cannot wait for policy review.

Prevention is a shared responsibility. Health systems must give families balanced, evidence-based information from the moment a child is identified as deaf, including information about sign language. Families must have free sign language classes and contact with deaf adults, early intervention services must include deaf professionals and deaf mentors, and schools must be ready to teach in sign language from the first day. And none of this works without deaf communities and our national associations at

the table. Today you will see this from many angles: how children acquire sign language from the beginning, what families and health systems can do before school, and deaf-led perspectives from Trinidad, Türkiye and India. Let's look at the evidence. Thank you very much. Back to you.

Moderator

The next speaker will explain what language deprivation will mean. Yarett Piñeiro Rodríguez is an educator. She has a degree in educational neuroscience. She will explain that language deprivation is preventable and a rights issue. She founded ASLES Corporation, as well as getting her master's degree in neuroscience, and she has presented on language deprivation and trauma before. This is what the subject of her presentation will be today. She did this first of all at the conference this July. She will be presenting in ASL and we will have IS interpretation provided.

Yarett Piñeiro Rodríguez, Educator

Thank you. I'm happy to be here. I feel very honoured to be invited to give some information. This topic is something that is quite long and complex, but I will try to sum it up in the ten minutes that I have been given. I know some of you might have some questions, but I will do my best to explain this as concisely as possible. I'm going to focus on trauma. Specifically, I'm going to address what happens when people think about trauma. Oftentimes they think trauma equals abuse or rape or other traumatic things that happen, so people come back from war and have post-traumatic stress syndrome. It is not associated with linguistic deprivation. When a child doesn't have full access to language, at that moment their trauma starts, and we can see that trauma happens in the brain, in the development of that. The impacts are in some areas of the brain and they're affected in a way that a child can't fully access or understand all the information that they otherwise would have. I will explain more from this lens.

What changes when a child cannot fully access language? What does the brain say is happening? What has the research proven? I want us to think about this question compared to those who have full access. When you don't have full access, what happens? Imagine a child who is in a classroom and that child is trying to understand, trying to receive and comprehend all of the information that the teacher is speaking about, but maybe there is no interpreter, or maybe there is an interpreter but the deaf child is trying to understand the interpreter. But language deprivation doesn't mean the child can't understand language or information. Being deaf doesn't mean the person

can't understand language. We actually have to look at what the child truly is understanding in that moment, what information is getting processed in the brain, what the child is feeling, what the child is able to express, if the child can identify and understand the information presented to them. Sometimes a teacher will show a picture in front of the class and the picture is not enough, because you don't know the child's background. You don't know where they're from, you don't know their family, whether they know sign language. There are a lot of things that need to be evaluated before we can understand the full picture of what's happening with a child. Imagine this deaf child is in a school for the deaf and there's true access, linguistic and otherwise, but the teacher, the assistant teachers, are signing away and not allowing the child to process information in the way that they need to. Is that really access? I wouldn't say so.

We have to evaluate each child to understand what their triggers are and what triggers their trauma. They may be able to see the information, but they might be frustrated in a way that we need to actually stop the process to be able to understand what the child is going through, what the child is actually understanding.

I'm going to move on to another situation, which is much more common, in that deaf children are brought up in families that don't use sign language. The families tend to think: we don't sign because we read lips and we get by, we communicate and are okay. This is common. The truth is we don't really understand how that child feels growing up in that household. We don't understand the traumatic effects on the brain that that has on the child. There are three main areas which are affected when you don't have early language support, access and connection. The three main areas are learning and memory: learning and memory are connected, so there's a disconnect between learning and memory. There is also a stress hormone factor. The child often feels like they're living like a soldier in battle every single day. It's the same type of stress, it's the same pressure to survive, and this is quite profound and quite difficult for the child. When the child doesn't have full access to information, not only linguistic information, but they also don't have opportunities to understand information and process information and to express their emotions, they will often say things like “I understand this”, “I understand the reason for this”, but learning is not successful when the understanding is piecemeal and they can only understand piecemeal what is happening. What happens inside the brain when it doesn't feel like it has linguistic access to all information is that it feels threatened; it's an automatic danger signal that's sent to the brain. You might see the child passively sitting there, but inside there's a war going on, in that the brain is looking at how to protect itself. The brain will basically block information that's trying to come in, in order to protect itself. It is like closing the door on danger. That's how a lot of deaf

children learn how to protect themselves. Their eyes are open but not everything is coming in. What we're seeing is that this changes hormone development and hormone flow. It's kind of this fight-or-flight reaction. The child basically is thinking that they don't know what to do to be able to learn. That mechanism is not working, so this process of learning is very difficult because they don't understand how to pay attention, because the priority is how to protect themselves. When their parents ask them something and they can't respond, what they do instead is they stop. We need to know about how to support children like this to be able to learn.

When teaching deaf children, we must remember first to regulate, relate and reason. What I do is I start with a smile. I say hello, my name, and I ask their name. I think that helps the child a lot, because they feel confident in the first step of the interaction, in being able to introduce themselves and their name. Also, I'm able to support their reasoning. It is important in the classroom to be able to look for information that is fully accessible and fully visual in each classroom, not only science or maths; all classrooms need to present information like this, and we can support them in a way that is calm and in a way that gives them a routine. It gives them daily confidence in their learning and remembering.

We have to continue to work with families, of course, to try to get them to join us in our perspectives. Deaf mentors are also very important in the representation. Education in sign language has a much greater impact, so we need to support the child's ability to know and learn sign language. For example, we have a huge problem here because we are still using ASL but we have LSPR, and that has affected our process of learning as well.

Moderator

Thank you again for your very interesting presentation, which I think really points to how the brain and trauma relate to each other, and the experiences of these deaf children and how it impacts deaf children's access when they don't have access to language. I welcome our next speaker, Aurélien Mancino. He has worked for many years with deaf children and deaf adults, over the last 20-plus years. He is also a member of the WFD Expert Group on Health and Mental Health. Over to you.

Aurélien Mancino, Psychologist, member of the WFD Expert Group on Health and Mental Health

Thank you. Hello, everyone. I'm going to share my slides. Hello, everybody. Thank you for inviting me to this webinar. I work as a psychologist. I'm a hearing person myself. I am French, but I moved to Denmark six years ago now. I worked for 20 years with deaf children and adults in various settings. Now I work in private practice as a psychologist here in Denmark. I'm a member of the Health and Mental Health Expert Group of the WFD, but I'm also involved in the education committee of the French deaf association, where I volunteer.

When we think of language at the beginning of our lives, it is an important topic. The first thing to say is that language happens before a baby produces its first sign or says its first words. As soon as babies are born, we can see clearly that language is starting to develop. They notice things in their environment, which means they are being stimulated and they want to give expression to what they can see. The adults notice babies watching something and then will take the opportunity to explain, and this is how we scaffold and develop language and interaction in regular circumstances between parents and their children. Of course, we have to fit in with the baby's ability to see and hear, so they have to be able to access that language. When they are able to do that, the adult can draw their attention to the object and introduce words and signs.

The adult directs the baby's attention and the child's attention. For example, they see a cat in their environment. The adult notices the baby seeing the cat and can give them the sign that relates to that, and this is how we learn about our world and how adults accommodate babies' and children's learning needs: this visual contact, this verbal or signed interaction between them, so they're having a shared experience from which the baby can learn language and learn about the world.

Through the accessible language, of course, it means a rich language environment in all of the child's environments, so we would see signing not only at home, not only at school and not only in the playground or at kindergarten, but in all of the environments surrounding that child. There is a big question about where deaf babies and children have the opportunities to acquire sign languages in this everyday, natural way. There is a great deal of research that shows how babies learn visual languages, how babies learn languages, so building the foundations for future languages, for more sophisticated language and expression.

We can think of early sign language development in terms of basic phases, but not all children develop at the same rate. We can think of these generally. We think of, as you can see, early signs. These are fully accessible from when they're born and, as said before, with these different milestones, they will look at combining signs. Perhaps around the age of one year old they start to produce signs of their own, meaningful signs around their first birthday. They will be pointing, they will ask for things perhaps, and should be able to say one or two words or signs, or be able to produce them. First of all, they must acquire and have a language-rich environment in order to express themselves. When they get to two years old, we can see them combining signs with one another to express relationships, for example. They might sign a person and an action, like “mother eat” or “daddy bike”. Those sorts of combinations we start to see as their language develops. Before school, we expect them to have more growing language in these pre-school years, to be acquiring more complex sentences, to start to use more complex grammatical structures and build up their storytelling ability; we expect that to grow and become more sophisticated in those pre-school years. We have research about these milestones, which are not to be taken too literally or to be written in concrete, but as guidance for how we expect deaf children to develop across these key milestones in their development. What is important is to look at each individual child, their own context, how they are developing. These things are not fixed. We have got to consider each child as a unique person, and deaf children mostly come from hearing families, so how are these achieved? It is proven that if language starts before six months, deaf babies can develop and acquire language in a natural way, compared to any of their counterparts in society. Even those with hearing families, if they are exposed to deaf sign language models early on, there is no need for language deprivation, but it needs to be enshrined in professional provision and the support services that are given to parents, so they can develop this sign language-rich environment with all the necessary supports and scaffolds that they need for their deaf child.

Then when we think about children learning turn-taking and learning how to exist in their home, to take part and observe, you need to be able to express things. So you need to be able to learn from your experiences and then express your opinions. Then you need to be able to know when you're being addressed by an adult and understand instructions. What is important, and what we don't often see, and many times we forget about with deaf children, is observing other people's interchanges with one another. It is called dinner table syndrome. It is a name for the lived experiences of deaf people who are left out of conversations at their dinner tables growing up in their hearing families.

This is a very important question for us to address. How can a child understand if no one is addressing them? How can they take part in incidental conversation if they don't have language acquisition happening at a normal rate? What opportunities will they have to ask questions and to learn further in the way that children normally do? This means that we need deaf children to be exposed in their everyday lives to expressing, being addressed and observing others, so that they understand how to interact in a dynamic group, how to take turns, all those sorts of things.

We don't look at sign language development in isolation. We must look at access to written languages and spoken languages, depending on the hearing abilities of that individual deaf child, and we know that varies a great deal. It is their audiological and educational journey, whether that is encompassing hearing aids. It is important to give a child access to the written language so they can read and write and gain literacy skills.

How do we prevent language deprivation? As the slide says, it is early access to a shared language. You have to build that complete 360-degree environment for our deaf babies so that they learn sign language and acquire sign language in a completely normal way. They have deaf role models in their lives at a very early age to advise the parents, for them to feel part of a naturally occurring sign language-using community. Access to deaf culture is also important for their growth and development. When we think about how you talk in families, how you talk to brothers or sisters, when people are introspective, whether to elicit things, what's going on. We need to see deaf children being able to access all the conversations around them in their lives.

We need to maintain this full 360-degree approach, otherwise we will see deaf children falling behind, and they won't have language in every aspect of their life and won't be able to acquire sign language in the way that they can. Very importantly, language deprivation really prevents deaf people from taking part in society, from expressing themselves, from understanding what is going on around them and taking agency in their lives. Language deprivation is a human rights issue. It is not easy for us to ensure that it never happens, but if we focus on the full family environment, we're giving the children a healthy start in life. Here are some of the references from the work that I have cited and the ideas that I've given.

Moderator

Thank you very much for your incredibly clear presentation about how children can really take part in the world if they are not exposed to language deprivation. Thank you for raising a key issue and for joining us. Some people are having access issues, but

don't worry. The webinar is being recorded and will be made available on the WFD website once the event is over. Apologies again for the access issues that people are experiencing, but you will be able to see everything in full after the fact. It is time to move on to the next speaker, who will explain what families and health systems can do before deaf children reach school age. I'd like to welcome Dr Naomi Caselli. She is an associate professor of Deaf education and director of the Deaf Center at Boston University. She will present in ASL.

Dr Naomi Caselli, Boston University

Thank you so much. Wonderful. We've already talked today a bit about language deprivation and the risks it poses to deaf children. A few years ago, there was a publication that was quite popular here in the US anyway, and that publication talked about the idea that sign language would hurt deaf children. It also focused on the idea that language-rich environments in both ASL and English would not be successful for hearing children. We decided that we would look at it because we felt something was missing. We wanted to take on this particular study because there was no evidence for this. There was a claim, but there was no evidence to back it up. We did a series of studies and I'll explain what those studies look like.

The first question that we had was could children… Excuse me, there is a message saying there's an IS interpreter that we don't have on the screen. I think we need an IS interpreter on the screen, please. Apologies for the pause.

The question that we decided to look at was: can children acquire spoken language? Looking at that, we see some of these quotes here on the slide. Some folks were saying, yes, absolutely, deaf and hard of hearing children can acquire spoken language, that that would not be problematic. Perhaps in the past it would have been a problem, but now it would be seamless. Other folks were looking at research and publications that were saying the exact opposite, that very often deaf children would be behind in their spoken language acquisition. Both of these claims were published to essentially be true, and they were in respected journals and respected publications, but they contradicted one another. We were interested to think about these research numbers and what they decided to say.

I worked with an individual by the name of Kaj Kraus, who is a postdoc here, and Matt Hall and Wyatte Hall. We were considering articles published about deaf children and their speech skills. When we gathered those 142 publications from different scientific articles, any of those that reported language scores, whether they were tested in any

particular environment, we gathered those together and we came up with 466 papers that fit our specific criteria and that would apply to our question, and would think about whether or not children would almost learn English on their particular age trajectory. Within all of those studies, several of them came from two larger grants. They were published in many different articles about the same groups, and most of those kids did not have very much ASL proficiency or exposure. Most were focused on spoken language only. One particular group had cochlear implants; another group had mild to moderate hearing loss and they used hearing aids, generally speaking.

What we found was that deaf and hard of hearing children are actually not reliable learners of spoken language. That horizontal line is actually what we would expect based on the test norms for hearing kids. The blue dots each represent one study of deaf kids that we focused on. It's not one child. It's actually one study. Let's be clear. On the left, you can see children with cochlear implants who have more severe to profound hearing loss, and we see those kids are about 20 points below the hearing norms. 35 points below the matching groups of their peers, if you will. That's a very big difference. When the researchers in the 70s and 80s were looking at lead poisoning, whether exposure to lead in metals was causing hearing loss, they saw four points below on this particular impact on IQ. What we're seeing here is 35 points below. That's a big difference. And if you see people say, well, what we have here inspector deaf kids and that's not a really big deal, but hard of hearing kids have a mild hearing loss, we should be focusing on spoken language, we're seeing that those kids are ten points behind their peers. It's not like hard of hearing kids are guaranteed to do well as focusing on spoken language.

If children have a delay but they're still acquiring language quickly, perhaps they can catch up. What we decided to look at was that, and what we saw was that when children are two and a half years old, they're about 12 months behind. However, their speed of acquisition is much slower, about half the speed of hearing peers. By the time they're five and ready to enter kindergarten, they're 27 months behind. You can see how that lag behind their hearing peers can become more and more significant. When we consider sign language in this picture, there is a series of studies that some have already mentioned today, and we won't go into those in depth. However, they're important to note; you can see the QR codes if you want to scan them for more information, if you want to look at them deeply, but we skipped these questions about some of the myths that we wanted to look deeply into. We have seen this time and time again: if children start before six months, their vocabulary acquisition is generally on par with kids who have deaf or hearing parents. That is just vocabulary. We would like more evidence

about other parts of language acquisition, and the evidence seems to lend itself that, with hearing or deaf parents, either way, children are acquiring language.

If we move on to our next question: how do parents' sign skills relate to children's sign skills? We found that there is an important relationship here, but hearing parents don't have to become as proficient as deaf individuals are. Something like the equivalent of an ASL 4 student, or four semesters of ASL, maybe two years of ASL classes, is sufficient for their child to see success. With that, children are acquiring language at an appropriate speed. That is really satisfactory for language acquisition and vocabulary acquisition. We need more evidence about other parts of language, but for vocabulary skills this is giving us some confidence that we're seeing success.

Thirdly, this question in and of itself is a bit offensive, but does ASL hurt English acquisition? We have seen time and time again people asking about this very hot topic. We never really see people asking the opposite, right: does learning English hurt kids' sign language skills? We never see that taking place, which is interesting to consider. That says something about how people value each of these languages and what they place upon them.

The question is offensive, but it is important for us to go ahead and study it so that we can debunk those myths. What we found is the opposite. No, ASL does not hurt English acquisition. If anything, it strengthens the learning of the English language and it bolsters that.

Most of our work is focused on early vocabulary learning. Considering our fourth question, and thinking more about long-term outcomes: does learning sign language early support academic achievement? What we've seen is, yes, absolutely it does. Children who arrive at bilingual sign language schools before the age of three are learning their languages very richly and have academic achievements that are on par, whether from deaf or hearing families. There is no difference. We're seeing some positive norms in terms of sign language. The last point is this, just to say that spoken language is a high risk, it is a gamble, and it doesn't mean that it's impossible. Some deaf and hard of hearing children can have spoken language, and hats off to that, but the point is that there is a high risk attached to that. Are we willing to take that risk? Sign language has less risk and lots of success. Thank you so much for the time and for inviting me, giving me the opportunity to share our research from Boston University's Deaf Center.

Moderator

Thank you very much for a clear, concise presentation. Spoken language is not something to gamble on when sign language can reliably prevent language deprivation. We know this. Thank you very much for your very lucid presentation on this subject. Now we're moving on to our short deaf-led panel, with three presenters who have six minutes each. It is a strict limit. I hand over to Valdano Tobias, who is a deaf teacher at the Cascade School for the Deaf, which is in Trinidad.

Valdano Tobias, Deaf teacher, Cascade School for the Deaf, Trinidad

Hello, everyone. Good day or good evening, depending on where you are. My sign name looks like this. I'm calling in from Trinidad, which is a beautiful island. Our culture, which I will show you some pictures of in a little bit, is focused around music and celebration. It is an honour to be a part of this panel. I'm very excited to be a part of this webinar and collaboration. I will start sharing my slides now. Great.

I'm going to be talking about my own personal experience. At age six, I started school. I was not deaf. I was hearing and I didn't have access to language. I went to a hearing school. I was the only deaf child. I didn't have any access to language. I was only writing and communicating through speaking or reading lips. As I grew older, I asked my mother why I was moved to a deaf school. My mother explained that the deaf school didn't have a very good educational curriculum. Looking back, I realised that my school journey had a profound effect on who I am today. We need to make sure that deaf children excel in their academic environments. The problem for me at school was literacy. It was being able to express myself in written form, but I was so far behind as a deaf student that I couldn't do that. I didn't have a sign language interpreter. For example, in mathematics classes and arts classes, I would be together with my hearing peers, and that experience taught me that deaf children are all different and they have different learning needs. When children don't have access to sign language, they're going to have more issues with how they learn and the capability that they have to learn. Deaf children here often live in rural communities and it is not possible to bring them to a school for the deaf. We don't have any parental support for deaf children here. We don't have any educational resources for deaf children here. We don't have any deaf role models. This influences children's ability to learn language, to learn at school. All deaf children are behind, but the first step is always for all deaf children to be exposed to sign language, and with that they will develop as they should. Thank you very much.

Moderator

Thank you very much for your presentation. Another interesting insight into your experiences and the education system in Trinidad. The next speaker is Hasan Dikyuva, who is a deaf researcher and also a PhD candidate at the Max Planck Institute for Psycholinguistics and the University of Amsterdam. He is a former WFD Board member.

Hasan Dikyuva, Deaf researcher, former WFD Board member

Thank you for inviting me here today on the important subject of language deprivation.

I just want to talk about the situation in Türkiye in terms of deaf education. We established deaf schools in 1891, which had signing, and that went on until oralism came along, with the oppression of sign languages from 1953 to 2005 in terms of the timeline in Türkiye: just an oral education system. Until there was a framework for sign language in 2005. There is limited recognition, so in 2015 sign language became a two-hour-a-week school subject in deaf schools, so deaf children had the opportunity to learn sign language in schools for two hours a week, and in 2016/17 a deaf teacher programme was unified. It was piecemeal until that point. We didn't have teachers being able to access teacher education. That was a barrier to sign language.

When we look at language deprivation and what it means in terms of deaf children having full language access, as described earlier on, when they don't have that, when their family is using a spoken language, when they don't have access to peers or other language role models in the community, we know it exists all over the world. What happens when we see this late acquisition? We're looking at what happens if, like a lot of children, they started acquiring sign language when they started school at the age of six, learning it from their peers piecemeal in the playground and also at a late stage. So this research is really looking at the impact of this late acquisition of sign languages on Turkish deaf children. It doesn't affect every linguistic aspect of their life. Turkish Sign Language is a topic, but that is not the same as receiving an education at the school. This has been going on for ten years and only two hours a week. It does exist in the school system, but nothing like having it as the language of learning, or the language of instruction for a whole bunch of other subjects, so that deaf children can learn about subjects. After that is very much following the old methodology of their education, and they're only getting two hours a week in Turkish Sign Language, which doesn't compare, of course, and doesn't really help their natural development of sign language. We see the situation where the teachers themselves are not fluent, so they are unable to provide services, and the children are teaching the teachers Turkish Sign Language. They're

doing the educating so that the teachers can keep up with them. Research has shown this is the case in Türkiye, and you can see from the research that that is going on.

What we then see in relation to this politically is the enrolment of deaf people: over the last 20 or so years, we can see that there's been a 72% drop in student enrolment. This data shows that the number of schools has dropped by 37%, from 49 down to 31. There are fewer deaf schools and there are fewer deaf children attending those schools. We're seeing an enrolment drop and a service and resources drop. This goes through primary and secondary education. This isn't even considering high school, but looking at the early age and primary school, so we can see that when you reduce these deaf schools in number, and they are gradually closing, from 49 down to 31, that has a huge impact. It is making a big change to the educational landscape. Furthermore, we see in deaf education, in terms of the choices that are made, really community reports are very important question. Six-year-olds are often cochlear implant users; they might not be the strongest signers. When they get referred to an education system by the RAM, the system which we have for assessing deaf children in Türkiye in terms of their educational needs and language needs, most of the recommendations are geared to sending them to a mainstream school. It is very unusual that there is a referral to a deaf school. The decision-making process is not deaf-led; it is out of the hands of the deaf community, and that has a huge impact and poses a great risk in terms of the placement of deaf children in appropriate settings, especially seeing the deaf schools closing and enrolments decreasing.

At what age does the deaf child get access to a full language? We know it is a great deal after they're born. That's the starting point. Secondly, what is happening at home? Can the families access sign language support from infancy? Can they get that support at home? Can it be accessed by them? And thirdly, in terms of teachers, are they fluent enough to teach academic content through sign language? Are there peers for the child to develop their signing? Just to wrap up, this would be a recommendation of what should be happening in Türkiye: early detection, the needs and rights of deaf children, support for sign language in their family, access to deaf adults and role models, and a rich language environment for the child to scaffold their learning. We also would like to see deaf schools with sign language teachers, resources and the curriculum backing all of that up. And with that, thank you.

Moderator

Okay. Thank you very much. We enjoyed your quick discussion about what is going on in the school environment in terms of the Turkish experience, and how we scaffold deaf children's learning through acquisition of sign languages. Moving on to the final panellist, Dr Sibaji Panda, who is the founder and director of a school, Happy Hands School for the Deaf in India.

Dr Sibaji Panda, Founder and Director, Happy Hands School for the Deaf, India

Thank you. Hello, everyone. I first want to congratulate the World Federation of the Deaf on 75 years of humanitarian action on behalf of all deaf communities. Technology helps us to be able to gather together now. It's great to see people and experts from all over the world presenting today. There is a great deal for all of us to learn. This is my name sign. I'm from India, on the east side. I'm at home joining you. I've set up a small deaf school here and the reason that I wanted to show you but in India I wanted to give you context. I don't know how many schools there are here officially. I don't know how many deaf Indians there are here officially. There is no real statistical number. We had, I know, at some time 700 schools, and I know that a lot of schools all around the world are closing, but in India it's not the case. We're opening more schools for the deaf in India than ever before. We now have approximately 700 to 1,000 deaf schools in India.

What the education looks like and the literacy levels of the students therein, we don't know. There are very few schools that use sign language, for example. Some of the schools are using sign language as a primary language of education – and thank you to whoever shared my slides just now. Some of the teachers do not use sign language, so we have a real variation in terms of pedagogical methodology, linguistically and otherwise, in the many deaf schools we have.

Happy Hands – and that was the sign for Happy Hands – is the small deaf school I established. I've been a researcher for many years and I thought I wanted to set up something different, something that could show the power of deaf people and what they will achieve when they get what they need. Looking at the education policy set up by the World Federation of the Deaf and others, I was thinking about designing educational policies and an educational programme. We have about 70 children, we have all deaf teachers, some hearing teachers as well, but who sign. The school is not the same as others around it. It's called an alternative school for deaf children, Happy Hands. We follow the happy way. We follow what deaf children like, and that's why it's called Happy

Hands. It is a bilingual school. We have everyone in the school environment who can sign; we have all 100 pupils and teachers and staff who can sign.

I understand language deprivation is a big topic. Over the past ten years that I've had the school, you see children growing and you develop an ecosystem of deaf children who are learning through multiple channels. I am not allowed to criticise. I just give them positive feedback. I say you're totally right. Whereas another hearing or oralist type of education that comes from the government, they give me their own policies, which I ignored, and throughout the years we have seen our educational model develop in a very, very positive way, and the linguistic prowess of our students is just so powerful. They have 24-hour access to signing, unlike many children who come from hearing families, for example, and it doesn't matter. We take deaf children from any walk of life. A deaf person can join our school from a hearing family. We have seen children like this who came to us with almost no sign language being fully fluent after only a short time with us. We have a lot of new milestones being achieved at relatively later stages in life within our children.

I just wanted to shortly explain: I know there are a lot of researchers around the world and there are a lot of papers that are rightly very, very concerned about language deprivation, and what I wanted to say in reaction to that is that deaf schools are set up to solve language deprivation. So we have set up an environment at Happy Hands to do exactly that. I would encourage all of you, all of us, to set up more schools, and it's not perfect, we do have our challenges, but I would like to try and inspire you to make these four changes – four things that have to change, and they're on the slide. This is how we can progress in terms of our responsibility to deaf children. Look at early sign language access. You're looking at the environment of where they sleep, where they eat, the adults around them, early life. It's very vital for them to have sign language all around them all the time. From then, you will see that they're ready for any other type of environment that they might go into. Within the educational sphere, the most important thing is, obviously, literacy, right. We want to focus on their literacy; we don't want to only focus on, perhaps, their ability to speak and learn spoken language – and thank you, I will wrap up. I just wanted to make sure that we cover all of these. The last one is sustained language support, where we meet children where they are and never confuse limited language experience with limited potential. Deaf people can solve this problem, and we are. Thank you very much.

Moderator

Thank you very much for that. Now we have a short amount of time, really just for one question. I'd like to ask Naomi: in terms of literature, in terms of how hearing families can support age-appropriate signing in their deaf children, if they're exposed early enough, before the age of six months, what can families at that point of diagnosis… what is the best thing that they can be told? What's the best message at that point in time?

Dr Naomi Caselli, Boston University

First, if we're considering six months, when we think about what we chose for research studies, it doesn't mean that after six months it's worthless and that we shouldn't approach the issue. I think that one of the biggest misunderstandings is this idea of the critical period, and that we have a specific window of time and that when that closes, we can't do anything more. That's not what the data shows. While the window is closing, it is actually a slow process. It is not that it closes abruptly and that when it is done, at five or three or six months or any amount of time, there is no opportunity. Of course, the earlier the better. I think the advice for families would be, most importantly, language access first and foremost; early and full language exposure and access is important. The only way that we know that we can guarantee that language access is happening is utilising signs. Spoken language, sure, you can go ahead and do that. I would not say don't use spoken language around your child, sure, but don't allow spoken language – I would think about it as an extra, right, something that you can use on the side. I would not use that as a dependent tool for the only access point. Family connections, as well as relationships, play, experimentation, learning, academics and all the other things that a child needs should not rely only on spoken language, because we know it is high risk. With that accepted, I think it's okay to use spoken language as part of the flute, or a piece of the band. It might be something that families choose to do with their child that they feel is important or has some value, and it can be part of the repertoire. That's okay, but don't allow it to be the entire child and depend on that as the only piece of the child's band. I think that there is no evidence, or rather, there is no evidence to say that once a person experiences language deprivation, that is the be-all and end-all. We can still go back, and there's no reason to consider that, perhaps, a child is impossible to teach, or unable to learn a language or to experience a great life. There is an opportunity to then expose a child to sign language the moment we realise that they're there and are teachable.

Moderator

Thank you very much for that answer. That's great. Thank you to all of our speakers and panellists for their wonderful contributions to this incredibly important topic and this webinar on language deprivation. There is a lot more work, information-giving and discussion to go on this subject for our worldwide community. Thank you all for adhering to very short time periods in order to give your presentations, your thoughts and your ideas. I welcome Dr Murray, the President, to give closing remarks. Over to you.

Dr Joseph J. Murray, President, World Federation of the Deaf

Thank you again. We started today with one claim: that language deprivation is not caused by being deaf. It is caused by systems that delay a deaf child's access to sign language. Every single presentation has shown us this. We want to give every family balanced, evidence-based information about the choices available to deaf children from day one. We have clearly presented evidence-based information that shows that families need to learn sign language for free, and deaf people in deaf professions need to be involved as role models.

We need to look at children learning their national sign languages, national acquisition of their own sign languages. We ask governments to give this evidence-based information, and education systems to be ready to teach deaf children in their national sign languages. And for our national associations of the deaf: we should use the CRPD and the Declaration on the Rights of Deaf Children with your health and education ministries, and ask how many children in your country have access to sign language before they start school. We're here to support you. Thank you again to all the speakers, to IDA and to everyone who joined us today. Seventy-five years ago, our founders believed that every deaf person has the right to their language and that right starts at birth. Let's work together towards the WFD's vision, which is a world where deaf people everywhere can sign anywhere. Thank you for coming and keep up the fight.