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## The Effects of Stress and Trauma on Language Development

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- [Amy] Once again, welcome to day four in our virtual conference, presented in partnership with the American Board of Child Language and Language Disorders, on adverse childhood experiences and the effects of childhood trauma on communication. Today's event is the effects of stress and trauma on language development. And at this point, I'd like to introduce our guest editor this week, Dr. Trisha Self. We really appreciate her help in setting this conference up. She is an associate professor and a Paul M. Cassat Distinguished Chair in the Communication Sciences and Disorders Department at Wichita State University where she teaches courses, supervises, and conducts research in autism spectrum disorders, and also serves as coordinator of the Autism Interdisciplinary Diagnostic and Treatment Team Lab. Trisha is a board-certified child language specialist with over 30 years of experience working with children demonstrating complex communication needs. And again, Trisha, welcome and thank you so much for being here today and helping out all week.

- [Trisha] Thank you, Amy. As Amy mentioned, this continuing education event is in partnership with the American Board of Child Language and Language Disorders, also known as ABCLLD. I'm on the board of ABCLLD and just wanna mention to today's attendees that if you think you have advanced knowledge, skills, and leadership in child language and are interested in becoming a certified child language specialist, you'll find resources at our website that describes the process. The web address is [www.childlanguagespecialist.org](http://www.childlanguagespecialist.org). Those of us who are specialists have found many benefits to being certified as an expert in child language. One being that we're dedicated to ensuring that children receive high-quality services. So I invite you to consider becoming a specialist. I'd like to thank all of you for joining us today as well. This is the fourth day of a five-day series focused on the topic of adverse childhood experiences, the effect of childhood trauma on communication. If you've joined us the past three days, you know it's already been a really great week of presentations. On

Monday, Dr. Chicha discussed adverse childhood experiences and their effect on the brain, behavior, and clinical practice. On Tuesday, Dr. Greg presented the effects of trauma on communication in forced migrant miners. Yesterday, Dr. Wesley visited with us about supporting children with adverse childhood experiences and provided us with us with resources for children caregivers, in terms of intervention strategies. Today, we're most fortunate to have Dr. Joy Osofsky who will discuss the effects of trauma on young children and the impact on the development of communication, and now it's my pleasure to introduce our speaker. Dr. Joy Osofsky is a clinical and developmental psychologist, the Paul J. Ramsay Endowed Chair of Psychiatry, and the Barbara Lemann Professor of Child Welfare at Louisiana State University Health Sciences Center in New Orleans. Dr. Osofsky has published widely and authored or edited six books related to trauma in the lives of children, including, in 2017, *Treating Infants and Young Children Impacted by Trauma: Interventions That Promote Healthy Development*, and in 2018, *Violence and Trauma in the Lives of Children*, a two-volume handbook. She is past president of Zero to Three: National Center for Infants, Toddlers and Families, and the World Association for Mental Health. She serves as a clinical consultant on the leadership team for the Zero to Three Safe Babies Court Team program. Welcome, Dr. Osofsky, and we truly are looking forward to your presentation today.

- [Joy] Thank you very much. It's a pleasure to be talking to all of you this morning. Actually, I yesterday attended an all-day ACEs summit being sponsored by a division within the American Psychological Association, because we feel this topic was so important that we need to figure out and learn more about ways to integrate it within our thinking, as well as how it relates to policy, which is really very important. So, as mentioned, I'm gonna talk with you about trauma and effects on language development. So, the learning objectives for this course are important to review. We're going to look at the different ways exposure to trauma affects cognitive and language development, describing how abuse and neglect play an important role in language

development, and we'll look at at least three prevention strategies that can help prevent more serious developmental outcomes over time. And I'm sure many of you are familiar with different trauma, trauma and how it impacts on development in different ways. And today, of course, we're focusing on language. So, the roadmap, I'm going to do a general review of the impact of trauma on development, and then look specifically at how trauma exposure can affect language development, and then finally looking at some of the clinical implications for language development and the kinds of things that we can do, the kinds of things that we can help parents and teachers do to help children in this area. So, if young children, zero to six, are exposed to trauma, there are a number of different ways that will affect their development. One of the things that's very important to realize in working with very young children is that problems start early, certainly problems with language delay start very early, speech and language delay. And if they go somewhere for help, at least in my field in mental health, if they go to a clinic or a primary care doctor or something like that in general for the very young children, zero to three, they'll be told that nothing can be done for the children. And then nothing is done, and then they get into school, and there are more problems.

So, I really wanna raise awareness about the importance of the fact that we can do something early. So, if children, very young children, are exposed to trauma, you can find few verbal skills, delayed or hard to understand verbal skills. So, when we talk about trauma, and I'll be talking about this later on, and maltreatment, abuse, and neglect, it's very important to recognize, we'd be going back to this, that the majority of trauma that we see with young children, that the majority of maltreatment is neglect, and, of course, neglect plays a very important role in children not having language skills. So, if there's speech delay with trauma exposure, there are a lot of different things we need to look at. Obviously, we need to look at hearing. That's something that seems to be the first thing that people look at. But we also see language delays, obviously, with learning disabilities that I'm sure many of you are familiar with. With

trauma, children have much more difficulty focusing our learning in school. They have much more difficulty being still and paying attention. And then if they experience neglect or maltreatment. They often don't feel very good about themselves. That comes into play in the first for years of life, and I know other speakers have talked about brain development, which plays an important role. So, the incorporation of how a young child feels about themselves can also relate, obviously, to cognitive development and language development. So how does trauma impact on a child's development in general? You've heard already about some of the neuro biological effects on the brain and neuroscience. And one of the references I gave you was from the Harvard Center for the Developing Child that is taken on translating the complex science of early childhood development into very understandable material related to stress, trauma, and toxic stress. And so, for those of you who aren't neuroscientist, I'm not a neuroscientist. I depend on their translation of some of that material, which is really useful. Trauma obviously impacts on the attachment relationship, the early attachment relationship.

One of the things that we say is early relationships have an impact on all later relationships. So, how that develops in the child early is very important. One of the kinds of effects we see of trauma exposure is dysregulation in a child, both in emotions and in behaviors. We've already talked about cognitive skills and obviously social and emotional development. Sorry. So, I like to think about trauma impacting on young children in the following way. I'm sure all of you are familiar with the book, *The Little Engine That Could*, the train going up the track and up the track, and trying to make it up the track. And if you conceptualize trauma as an event that can push that train off the track, and our role, our role, my role as clinician, your role in the area speech and language is to help that child get back on track. So, essentially it's derailing the normal developmental trajectory, and you can see on the slide some of the kinds of things that occur. Obviously, developmental delays is what we're talking about today, but also a negative sense of self, difficulty in forming attachments in the early years of life. What

are some of the red flags. I find it very useful to be aware of the red flags. In a baby, a very young child, if their emotional needs aren't being met, what we see is you can... A child in the first year of life, a baby in the first year of life should have a range of emotions, from clear attention, sadness, smiling, the whole range. And with the baby who's been exposed to trauma, you can often see bland affect. You'd look at the baby and you think, "Is the baby depressed?" My colleagues in the field don't like us to use depression for a young baby, but it's sort of a withdrawn behavior. The baby who doesn't show eye contact, particularly with the primary care giver. Lack of responsiveness. And then this problem with attachment relationship where you don't see that post relation with the caregiver and that child who is friendly to strangers, to other people. We know that some young children are more friendly than others, but they really should not be preferring a stranger to a familiar caregiver. A baby who really doesn't wanna be held close and cuddled in that way, all of those are red flags we need to look at.

And when they got a little older, toddlers or preschooler, that's when you tend to see a lot of the aggressive behavior, dysregulation, and behavior difficulty sitting still and paying attention. I've already talked about indiscriminate attachment. There's no question that over time and for those of you in the field of speech and language, you know, at first, a young child probably will be hesitant to be with you. But then if you see them over a period of time, they get more familiar because we pay a lot of attention to them. In my field, we play. But if you get indiscriminate attachment where they really prefer a stranger to the primary caregiver, that's of a great concern. And then you can get feeding problems or sleep problems. There are a lot of behaviors in toddlers that are not pleasant for parents or teachers. Toddler's normal development, they will hit, they will bite, they will do other kinds. They still throw tantrums. The question is if it's beyond what seems to be normal in terms of development. Those are things that we need to look at, in terms of being problematic. The other thing that we need to think about related to trauma exposure that it only impacts on the child, but also impacts on

the caregivers. Parents, caregivers, teachers. All the people who are caring for the child, may also be impacted by trauma. And when you're impacted by trauma as an adult, it may be difficult for you to be what we call emotionally available to the child, being there with them. You may be there physically, but not really emotionally available to them. Also, if a child has been traumatized, one of the things we see particularly with young children and toddlers is they'll play out their trauma. So, quick example, after Hurricane Katrina where I played a major role in the mental health response, we housed first responders who had lost their homes on cruise ships that were there in the harbor, because they had nowhere to live and they had to work in the city. We felt it was important to get all the children to come back, and we got a lot of children on the cruise ship.

Then we had to set up childcare centers for them, and we had help doing that, and lots of choice. The first thing these children did when they went into the childcare center was they started to play hurricane. Playing hurricane was very traumatic for the parents. They didn't want them to do that and we suggested they go walk around the boat, take a brief break, have a bit of respite while the children are with us. But children who are traumatized replay out whatever trauma they experience. We also see that a lot with domestic violence, and that can be very traumatizing for the parent. And they need to protect themselves because they feel vulnerable. So it's very, very important to pay attention to the adults if trauma has occurred as well.

Of course sometimes we know that the adults are the perpetrators and that we'll talk a little bit about that later on. So what influences how much children are influenced by trauma if they go through these experiences? How many times they have been impacted, how many times they've been exposed to trauma, how severe it is, how close they are to the event plays a very important role. What seems to be most important is their relationship with either the victim or the perpetrator in terms of how much they'll be impacted, and I have this example from children separated from

parents during the London blitz. What happened then is they would have the children go out to the country with relatives so they would be safe, and parents stayed in London when they were concerned about the bombing. But actually, when they followed the children, the parents that kept their children with them in London had fewer symptoms later on than the children who were separated, and that speaks to the importance of the attachment relationship. Other factors that influence on children's exposure and the extent that it will impact on them is their age, where they are developmentally, how dangerous the situation is. I already mentioned their relationship to the victim or perpetrator. Is there someone there who can support them, and there's no question about relationships being a very important factor for children who are impacted by trauma, and then genetics can play a role as well. The previous history of trauma, as well as subsequent traumatic experiences are very important in terms of how a child will be impacted by trauma.

Again, with some of our experience, our experience with children who are abused and neglected, but also experience with disasters, those children who had a previous history of trauma, and then we're impacted by the disaster and having to evacuate and losing their homes, and then had a subsequent trauma showed many more symptoms, mental health symptoms than those who are more protected in that way. So we need to look at chronicity of trauma and the numbers of traumatic experiences. Again, and I'll talk later about the importance of the relationship. So what are additional risk factors that relate to speech and language delays? This is the area that we're focusing on today. Children who grow up in poverty are more likely to have speech and language delays for a whole variety of reasons. They may not have as many resources available to them. They may be more stressed. Depending on how they were raised, they may not talk to the children that much because there's so many things in their lives that create stress, and we know talking is very important. Other risk factors, not having social support, parents with limited education, young parents. Parents are depressed because parents who are depressed don't talk to their children and probably don't read

to their children, and you all know how very important talking and reading to a child is important for language development. Then if children are exposed to drugs prenatally, alcohol, particularly fetal alcohol, but also other drugs. That can impact on their development in general and will impact also language development. Then other risk factors during pregnancy can play a role, and you can see some of the ones that we talk about. Abuse and neglect are very, very important risk factors related to language development. And then children who are in foster care, who are in multiple placements who don't have a steady attachment relationship and a steady environment are also going to be at risk for not only speech delay, but other kinds of behavior problems as well. And in actually researching for putting together this talk, there are a number of other kinds of risk factors that came up. So as we know, males, boys tend to develop a little bit slower, particularly in the area of language and speech than girls, and so there are more likely also to have speech delays.

Ongoing hearing problems, but that's pretty obvious, but it may not be picked up. So often when a child is in preschool, a teacher will ask the parents, either they're doing a hearing exam or they ask them to have a hearing exam if the child at the age of, as they become three years old aren't putting together the numbers of words that they want. So, hearing problems obviously play a role. And the reason a child with a difficult temperament would be an additional risk factor is they have trouble sitting still and paying attention. They may not listen to other people. When they talk to them, they may not be able to sit still and have books read to them. Those are additional risk factors. And then children with disability are at higher risk for language delays as well. First of all, children with disabilities, there's a higher rate of maltreatment. As you can see the figures there, that it's almost three times the number of children with disabilities who are maltreated as compared with normally developing children. If children are deaf or hard of hearing, they have a much greater risk for neglect and abuse than non-disabled children. Children with communication delays have five times the risk for neglect and abuse, and that's probably related to the fact that parents or caregivers

don't have the patience with them. They don't have receptive language to be able to follow directions, and it probably becomes much more frustrating for parents in the course of caring for them. There are a whole variety of different kinds of things that can lead to the increase of use for children with disabilities, but unfortunately it does occur and it does impact on language delays. So what happens when an infant or toddler is maltreated? Earlier this week I've heard of presentation on brain development, and we do know that lack of stimulation interferes with growth and development of the brain and certainly the part of the brain that controls cognitive development. Also with maltreatment, there's difficulty with attachment, and the attachment relationship is a protective factor, even with trauma. So if there are difficulties with attachment, that can be very, very problematic for children related to language development. So we generally see, and I'll talk a little bit more about the figures related to delays in language and speech. Maltreated infants often do not use speech and language. One of the things we see often very often with maltreated infants and young children is that they will exhibit aggressive behaviors.

They'll bring attention to themselves in ways that are negative because they can't do it with language and they can't communicate. One feeds into the other. So it's always very important to know if the children are getting attention in ways that are negative, because they don't have language. And obviously, abuse and neglect co-occur with domestic violence, substance use, and other risk factors, and we've already talked some about that. So, here's some of the data, exposure to trauma effects on speech and language, and I believe you can read that, that 35% of children with speech and language delays have experienced maltreatment. Also, for children who are referred for speech therapy, many of them have experienced abuse and neglect, and remember I emphasize neglect later on. So, there would be a benefit for people who do speech and language, professionals who do speech and language work, and we refer to them all the time. If they also had education, some education, being more trauma informed about the effects of trauma, abuse and neglect on development so that you can look

at, be more knowledgeable about the environment that these children are living in. So here's some of the figures. Nearly 700,000 children are abused in the US annually, and 75% of them experienced neglect. It's interesting that that figure keeps going up. It used to be in the 60s, in the 60 percentage who's experience neglect, but we're having more and more children experience neglect, and it's probably related to the increase and substance use for one of the issues, and in various areas increase in other adversities such as poverty. And a lot of people don't realize that the victimization of children is highest in the first year of life. I was given a presentation recently to an alternative school with children age 18, I'm sorry, 11 to 18, and I showed a slide related to the impact of abuse and neglect. And the longest bar is a zero to three-year-old children, and it was interesting that the teachers in the audience said, "Now we understand how these young people "that we see became the way they are, "because of the early abuse and neglect in their lives."

So, obviously, neglect influences cognitive and language development. Because if you aren't talked to, and you aren't read to, and don't get that stimulation, that's very important for language development. And I can't emphasize enough the importance of talking to children and reading to children. It's interesting, if you work with young children, I see a young child and I'll talk to them. I see a newborn baby and I talk to them. And I remember I was in a hospital once with a colleague who had a baby and started talking to the baby, and the nurse came over and said, "You know something about babies, we need to talk to babies, "even if they can't talk back, "and we need to help parents understand "that if they can't respond back, "we still need to talk to them. "It's important for language development "and overall cognitive development." So, again, another study of the effects of neglect on language development. Again, younger children are particularly vulnerable, and it affects their development very negatively, and that's one of the reasons we're emphasizing here that we need to intervene as early as possible. And certainly for language development, it's very important to intervene early so that it doesn't get in the way of learning for children. So

if we look at a child welfare sample in particular, there is this study that showed that with a good early care and education center, it did help with language development. Children under the age of six had improvement in their language development, but it has to be a good responsive early care and education center. So, you've heard me emphasize the importance of the attachment relationship, and we can see that that can be addressed in early care and education. Also, more consistency in attending. They need to go every day. That's beneficial to them. And a red flag again could be irregular attendance, because that also could indicate more risk for the child. If they're not being brought to the center consistently, there may be more problems going on in the family. But it important to know that not just the home environment, but the early school environment certainly can impact on language development, and we often encourage young children to be able to get into school, a very good school, a headstart, an early headstart, and certainly find significant improvement in language development. The NICHD, national Institute of Child Health and Human Development study of early child care, there was again good evidence that high-quality child care did predict better pre-academic skills and language performance at 4 1/2 years. This was a national study of child care.

Certainly, children can develop language well in the home if they're being stimulated, but child care really, good-quality child care, can make a difference. So that's important to know. Let me talk a little bit about the continuum from stress to trauma. And if you're interested in more information in this area, again, I would recommend you go to the Center for the Developing Child at Harvard. Just Google it and you'll find lots of data related to toxic stress. So, everybody has a normal amount of stress in their lives. So that's something that we learn from and keep going. But then on the continuum, we we see emotionally costly stress, and then traumatic stress that becomes toxic. So, for some of the positive stress, it's a necessary aspect of development. There may be some increase in heart rate or mild changes in stress hormone levels. But in the context of a health relationship, children are fine that way. Then there's tolerable stress.

Tolerable stress could disrupt brain architecture, but it's buffered by supportive relationships. If this presentation were a little bit longer, but you can go to the website and see it, I often like to show a video related to brain development. And one of the reasons that I find the video interesting is people who work in this area and some of the people at the Center for the Developing Child at Harvard talked about brain architecture. And I asked them why they called it architecture, and they said because it's building blocks. It's because that's the way brain forms itself, and they felt that talking about it as architecture will help others understand that they're building blocks of the brain that can be disrupted but are buffered, again, by supportive relationship, and then the brain can recover from the damaging effects. But then there's toxic stress, and toxic stress will activate stress systems in the body in a way that does impact on the brain, and this particularly negative without adult support, without that attachment relationship.

So you'd get an increase in cortisol and an increase to other kinds of systems within the body and within the brain that can impact learning in the long run. So it's very important that we all get involved early, so that these types of things do not occur. Because even if a child is exposed to toxic stress, with a loving relationship, they can easily recover from that. So, maybe some of you know about the Adverse Childhood Experiences Study. It was originally done by Vince Felitti and Robert Anda, for those of you who aren't familiar with it. They did it with patients at Kaiser Permanent who were supposed to be going in for bariatric surgery, and they needed to have a surgery because of their health. And they found that, in some of the initial interviews, that some of the patients refused the surgery and learned over time that they had refused this surgery because they really didn't want to get them, and they didn't want to be attractive. And when they probed further, they learned that many of these people have been exposed to early, particularly sexual abuse, but early abuse, that that was one of the reasons that was influencing it. So then they decided to do a larger study, as can see, of 18,000 participants to learn more about the effects of early trauma and how that

can impact on development, and you can see that the basic finding there in terms of common health problems. So, from everything I've been talking about, we know that many mental health problems and health problems can be influenced by things that happen early in life, risk factors, harsh environments, inconsistent parenting. One of the things we're very interested in in our work is short and long-term effects of traumatic experience on children. And this is the Adverse Experience Triangle if you haven't seen it. What happens is there are negative experiences in their early childhood that lead to difficulties in school, and then possible problems with social, emotional, and cognitive development, and language development. These children have more difficulty learning. And as they get a little bit older, they may have problems with health risk behaviors. They may smoke. At school, they may get into groups with gangs with kids. They had trouble at school.

And then later on, it contributes to increase in disease, and disability, and social problems in their lives, and potentially early death. So there's been some work in this area relating to health problems, like heart problems and other kinds of health risk problems, but also mental health problems. And as you can see, as you can imagine language delay is going to be part of the impairment that occurs. So this is just details a little bit more of what I was talking about, and you can find this table of abuse and neglect and household dysfunction leading to the different negative effects, ranging from neuro biological to health risk effects, obesity, or substance use, and finally the long-term problems.

On the one side, depression or drug and alcohol abuse. And then on the other side, things like homelessness, criminal behavior, unemployment, and problems with parenting, and problems with parenting relate obviously to early problems with parenting. I know with our interventions often parents who haven't been parented well themselves been exposed to trauma, domestic violence, abuse will sometimes, unfortunately, repeat this in the next generation, and that's one of the reasons for

intervening early. so, this is just the conclusion of ACEs in terms of increasing risk for poor outcomes. Why is this important for us to think about with language development? Again, children under three have the highest rates of abuse and neglect. The majority of it is neglect, and children with mortality who died from maltreatment, three quarters of them were under four years of age. So intervening early at the time when language development is occurring is very, very important. I'm gonna skip that slide and just look at this, this slide where we have positive or tolerable stress that can, in the context of relationship, can help a child become more resilient, toxic stress which is unpredictable, uncontrolled, and severe, and lead to increases in vulnerability. And how we wanna change outcome for traumatic children is with all of the kinds of early negative experiences they can have, how important parental support and social support is. It helps them develop their own internal strength and resilience, and then they learn how to use external supports in a positive way for themselves. Obviously, the conclusion here is that positive relationships are very important for healthy development. We need to intervene early to promote resilience. For those of you who might be interested in reading more about that, this I can't recommend too much, and Masten's book on Resilience as Ordinary Magic, because, essentially, it talks about just the kinds of things that most children can be exposed to in early development lead to resilience.

So with positive relationships, we find that it supports all different aspects of development and it gives children the kind of foundation that they need to be able to cope and adapt, because everybody is gonna be exposed to some kind of trauma. But in the context of relationship, they'll learn was to cope and attack. It's important to look at the kinds of things that contribute to maltreatment that will then influence language development. Domestic violence occurs, will occur in 30 to 50% of homes, 50 to 80% substance abuse and other socioeconomic factors. So the increased likelihood of abuse and neglect is in homes with some of these kinds of factors occurring. For those of you who work with high-risk populations, you would be familiar with those kinds of

issues. And unfortunately, as a clinician, we see intergenerational trauma, intergenerational abuse and neglect, intergenerational domestic violence and substance use, and all of those will contribute to poor outcomes. And specifically related to language delays, again, the risk factors we mentioned before, poverty, because there's so much more for families to cope with with poverty, limited education, teen parents, depression, serious mental illness, substance use, and then risk in the baby, and abuse and neglect. So it's very important to just be aware of the risk factors. Infants under the age of one are the largest cohort of the child welfare system. I hope everybody is aware of that, but, obviously, being in the child welfare system is going to increase the risk for language delay. And again, maltreated infants, it's unusual if they do not have some type of symptoms and often language delay is part of it. So if we look at the data for young children and foster care, they're more likely to be abused and neglected, and particularly neglected. I mentioned before, fatalities are much more, occur much more often in children under the age of four. They also remain in placement longer and return to placement.

With all of those types of things, there's a lower rate of reunification, developmental delay, four to five times greater than children in the general population, and they can have also physical health problems. I'm actually involved in a program called Safe Babies Court Team, I don't know if it's in some of the people on the call. If in your state you have a Safe Babies Court Team where we have work together with the court, with the judges and the lawyers, and also community stakeholders to bring together a much more intensive intervention program for children in the child welfare system with very good results related to increased or decreased time to permanency and many more children reaching permanency much more quickly after they've been taken into care. Development delay in children in foster care. While the overall delay is 60%, this is one of the most important things to recognize for those of you who work with high risk and children in care. 57% have language delays. So, where the overall delay is 60%, most of it is in the area of language, and it's for all of the kinds of reasons that I was talking

about and why we need to pay attention to abuse and neglect for children early in their development, because in the general population, the overall delay is much lower, but I've always been impressed for the fact that the targeted delay unfortunately is in language development. So, if we look at the fourth bullet there, deaf or hard of hearing children have two times the risk for neglect and almost four times the risk for physical abuse than their non-disabled peer. So, very important to recognize the children who have communication delays are at much higher risk for abuse and neglect. Part of it is they can't communicate their needs and they communicate it through their behaviors, and that's what people will respond to in many ways. Not unexpectedly, severely neglected children experience more delays, even fewer receptive language skills, because for those of you that I knew were in the field of language development, you know that, well, children may have difficulty with expressive language early on. They have good receptive language, and that always is very positive for us to know. And we work a lot with serious mental illness, as well as substance use which contribute to neglect.

Okay, let's look at protective factors. Protective factors are really important. First of all, it's important to know that even with significant trauma of children and families can show resilience. We did studies after the gulf oil spill which followed five years after Hurricane Katrina where so many people were impacted. And the families reported about all the negative experiences that they had. And then we had something short, a couple of items to look at self-efficacy or resilience. Majority of the people said they'd be okay. So children and families can show resilience, even if there've been significant trauma. And for children, crucial protective factor is the parent or caregiver, somebody who's there for them, somebody they can count on, somebody they can talk to, somebody who they know will be there and help them feel safe, and that's a very, very important protective factor because we know how important relationships are for development. So, additional protective factors for children that are good to be aware of are those who have an easier temperament. Children come into the world with different

temperaments. Those who have an easier temperament are easier to relate to, listen better, are smiling, those are kinds are much easier than children who have difficulty sitting still or running around all the time, can't pay attention. So those children are more likely to experience trauma, abuse, or neglect. Another protective factor is maternal or parental relations, say well-being, because we talked about poverty as a risk factor that brings more stress. But if parents are doing pretty well themselves, they can be more emotionally available to the children. So, if we think about language development and speech delays, we can't think about it in just all by itself, we have to think about it in the context of the family and family factors. It doesn't necessarily have to be parents. It can be extended families, someone who's there for the child and is going to be able to give the child the kind of stimulation and experiences they need to develop language.

So, I wanna talk for a minute and I don't have slides about this, because I thought that it would take longer, but I can give you references related to that. I wanna talk with you a little bit about vicarious traumatization, and compassion, fatigue with trauma. So, one of the things that we often don't pay enough attention to is how trauma can be impacting the caregivers of children. So, for example, let's just take an example of the child welfare system where the case workers, where they need to follow up on so many different families where there is abuse and neglect. And they may over time start to dread going out to see the families because of the fact that they just can't look at one more family and one more child that's been abused or neglected. Let's also take a look at trauma that may occur in systems that are suppose to keep children safe. So, for example, if we have, again, the child welfare system, we can look at the retraumatization that can occur for children in the child welfare system. So, for example, if there's domestic violence in a family and police officers go out as a call related to domestic violence, and there's a two-year-old sitting there in the corner, so the police officers don't know who's been the perpetrator of the domestic violence. So they will arrest both of the people and put handcuffs on them, and this little child is

observing this violence occurring to the parents and has already experienced the trauma of witnessing the domestic violence, because young children are impacted by domestic violence. So here the child has suffered at least two traumatic experiences. Then the child is taken into, put with a stranger who, to keep the child safe, but is also retraumatizing again, because they're with the new person. Then they may be placed in foster care. If they're lucky, they'll be placed with relatives who they know. So we see systems that are supposed to be keeping children safe in some ways can also be retraumatizing system, and we have to think about that. And then for children who are in foster care, if they, for example, are brought in for their speech and language assessment and were, they may be brought by another stranger, and a different one for each visit.

So these systems that are supposed to be taken care of children are retraumatizing them. And then for those of us who work with trauma, we find that, after a while, we really don't feel like going to work that way or we find ourselves short with our colleagues at work, or we have this child coming in at nine o'clock in the morning, and we're dreading the child coming in, because every time they come in, the parents come in, and we witness a parent who isn't being sensitive to the child or other types of things, and we're exposed to trauma over and over again.

So, vicarious traumatization is very common in police officers who have to go out and experience violence all the time. It's very common in people who work in the child welfare system where we see abuse over and over again. It isn't talked about that much, but there probably is vicarious trauma with juvenile judges who have to continually see cases of children who are abused and neglected. So it's very important for those of us who worked in the area with abuse and neglect to think about trauma and the impact on us and how we can deal with that. I'm gonna give you an example of how trauma can also impact on a parent who's been affected by domestic violence. There was a young woman who came up to me one time when I was doing a lecture

related to trauma. She was an educated young women, and she said she really wanted to talk to me about her three-year-old child. It was in front of a large group of people, so I asked her if she would wanna talk privately after this was over. And she came to talk privately to me, and told me that she had been with the man that she was now married to for six years, and he had been abusing her all that time. This was March of the year, and in January, he abused her so much that she almost died. He was so violent to her, and she finally left him. And we know this is very common with domestic violence. But until she heard my talk about how young Children are impacted by trauma and violence, she didn't think about a three-year old who was always sleeping in the next room and hadn't been, she said, hadn't been impacted in various ways because she was sleeping. And I said, "Was she concerned about her child?" And she said she is sort of concerned that she seems to be more irritable in other kinds of things.

So, we agreed that she would bring her child in to see us. And she brought her child in. We talked to her about the fact that the child will play out the kind of trauma that she's experienced, that she might see things in the playroom that would be upsetting to her. Similar to the example that I gave earlier of how the children played out, disaster played out the wind and the hurricane on the boat. So the little girl went into the playroom, and we had a doll's house in the playroom, and there was a little baby on the floor. And the first thing the little girl did was she picked up the little baby and put the baby on the roof of the house and said "Help, help." And the mom fell apart, seeing that her child do that, and even though we had prepared her. So it's really important to know when children are exposed to trauma that, first of all, we also need to support the parents. We're there to support them, but also recognize that children are gonna play out their trauma. So for those of you who are doing speech and language work with these children who've been exposed to trauma, they may talk to you about their experiences. Or if you're using play with the work that you do in some ways, you'll see them play out the trauma, and of ten that can be very traumatizing for the parents. As I

mentioned before, they had difficulty seeing their children being so distressed in that way. So, one of the things that we recommend to people who work with children who are traumatized and do work where there's continual trauma is to think about how to gain some balance in their life and talk a lot about the importance of self-care. There are activities that can be done for self care. Certainly, many of you, I'm sure, have heard about it. Deep breathing activities can be very relaxing. Color breathing is some of the kinds of things they do, and also meditation. But even simple things for self care like taking a walk, or taking some time to yourself and listening to some music, or from work, taking up, quote, "mental health day, taking a day off from work, but recognizing that for those of us who work with trauma, it can very much impact on our health and development, and then our emotional availability to other people. I mean the literature shows that so many children, and we know we refer all the time for speech and language, children who've been exposed to trauma. We have to recognize the impact on those who are caring for those children.

The other people who are at high risk for compassion fatigue or secondary traumatic stress or vicarious trauma also are teachers who work in child care centers where there are a lot of children who may come from families where there's domestic violence, where there may be abuse and neglect. And so they see the children all the time not being able to control their behavior, and it becomes, at times, it can become overwhelming if there are a lot of children who can't sit still. And under those circumstances, people need to be aware of the effect. Some of the kinds of things that we look at, as we call red flags, are not wanting to go to work or not wanting to get up in the morning. I remember that early on I, in my career, at 7:30 in the morning, I had to see a family where the mom was always depressed. I found over time sometimes it was hard to get up, but it's hard to see people who are depressed over and over again, so you need to be aware of that. Red flag again in that area is not feeling like going to work or find you're just getting irritable at work, or other types of things like that. So it's really important to be aware of potential vicarious traumatization related to work in this

area. So I'm going to stop at this point. You can see that there are some references if you wanna look at them, and I'm open to your questions.

- [Amy] Thank you so much, Joy. I'm going to just open up the Q and A pod. Wanted to let our participants know, if you have questions, certainly feel free to type them in this time. We'll do our best to get to them, but I'll start with the ones that are already in here. So there's a question from Heather that says, "In my retirement, "I have been working with the sheltering program. "Families may be in the program for six to eight months "before finding permanent housing. "I find that most of the younger children are disengaged "and have diminished play skills. "They tend to be most comfortable with screen time "versus a personal interaction type of activity. "What are your reflections "on the impact of child development "and prolonged food and housing and security?"

- [Joy] You know, it's interesting when you say that and talk about they seem to be most comfortable with screen time versus interaction. The problem with screen time as we know, particularly as it relates to language development, as we know that... Well, with language development, also interaction in general, it's very important for that one-on-one in-person time. So much more important for the children. So, in terms of that, I think would take it slowly and maybe go up to the child and to them about, "Is there something you really like to play with?" Just kinda be there, not be too intrusive, and then let them choose that "I know you like to watch the screen, "but maybe there's something that we could do together. "Is there something that you really like to do?" And they might reject you the first time, but go back a second time in trying to be what I talked about before is emotionally available to them so that there would be a way to engage them and interaction. That's what I would do in that situation. We've seen that often, by the way, with children after disasters, very withdrawn, but then we just kinda sit there with them, and that can really make a difference for them.

- [Amy] Thank you very much. Someone was asking you to talk a little bit more about, when you talked about looking for hearing problems in these children that have had traumatic experiences. She's asking, "Are you saying that hearing problems "can occur as a result of trauma? "I know that you did say that children "with hearing impairments "are often at a greater risk for abuse and neglect, "but were also saying the opposite?"

- [Joy] No, I don't really feel that. I mean obviously if a hearing problem could result from some kind of physical violence and that kind of thing, we haven't seen that much. What I was mainly pointing out was that children with hearing problems will have language delay. But with severe abuse and neglect, one certainly could have hearing problems then will influence on speech and language.

- [Amy] Okay, thank you. There's someone who's been here for several days at the conference this week. She's wondering, she said that she is seeing more and more children who have suffered adverse childhood experiences, but the reverse of what we often hear about, and that the biological dad is the primary care giver and the mother was the one that either abandoned the family, dealt the abuse to the childrens or even abused the feather. So she's wondering if there's any studies on this phenomenon specifically as many of the examples that are given tend to present the reverse scenario.

- [Joy] In terms of... We certainly see many fathers who are raising children and where there has been abuse or neglect perpetrated by the mother. We often talk about mothers, but I prefer to talk about parenting, so I think it can go either way, but we certainly see either caregiver being the perpetrator of abuse and the other being the caregiver of the child. The children will do fine. I was mentioning support of caregiver that's what's most important for them. But I would say in a situation like this, it might be good for them to also get some additional support. We see a lot of families like this. I think it can go either way, and, yes, we have seen that.

- [Amy] Alright, thank you. Now we have a couple of questions here that are kind of honing in on autism spectrum disorder. So, one of them is asking about any resources you know of for assessing the attachment style of children with autism spectrum disorders and would that be any different than resources for the neuro typical child. And then some else, likewise, was asking about ACEs and children with autism spectrum disorder or visual impairments.

- [Joy] I work on trauma in general. I have a colleague actually who specializes and work with children with autism spectrum disorder. I mean there are a whole variety of things that we know that can relate to autism spectrum disorder. I would prefer to differ, and I would be glad if somebody wanted to email me to refer you to a couple of colleagues who specialize in that area related to autism and trauma. Obviously, there are children who aren't as responsive in some ways or respond in different ways maybe at higher risk for trauma and for trauma exposure, but I can't give you studies right now related to that. I wouldn't wanna misspeak. But again, they're a higher risk population and so potentially more likely to experience trauma. But if you do wanna email me, I'll be glad to refer you to a couple of people who work specifically in that area.

- [Amy] Thank you. Maybe we can put your email address up at the end here, so that people can email you about that. We do have a couple of questions that are similar, having to do with collaborating with SLPs. In your role as a mental health clinician and researcher, how do you currently collaborate with SLPs? Are there models that exist for integrative treatment with mental health and speech therapists?

- [Joy] That's a great question. We do frequently. So if somebody, a child is referred to us, a young child is referred to us and we, we identify speech or language problem. Last year, we actually had three different children referred who were four years old, who had very, very little language. So, what we'll do is a comprehensive assessment for

trauma and early experiences so that we can learn some of the kinds of things that may be contributing. But when we see speech or language delays, we then refer to speech or language. We collaborate with them in that way, so that the children need those needed services, because what speech and language professionals do is different from what we do. We feel fortunate that it's too bad somebody else didn't identify it before they even referred it to us. But if we see a language delay or speech delay, then we'll work collaboratively. So they will get those services and then we will communicate with them, but we will have shared consent so that we can also share with them some of the early, if there has been early traumatic experiences. We've seen it a little bit more often in families where they're living apart, where the mother and father are living apart. We had several with speech and language delays. I'm not exactly sure why that occurred. It just was a number of referrals that we have. So, speech and language is very, very important to us as mental health professionals for the work that we do and the work that you do, because it's specialized and we can identify children who need those services.

- [Amy] Great, thank you. I wanted to let our participants know, if you do need to go, you will have, be considered to have adequate attendance. So if you do need to log out, feel free. I am gonna try to throw out maybe two more questions, Joy, if you have a couple more minutes.

- [Joy] Uh-huh.

- [Amy] We have a question about, do you know of any research on trauma secondary to abuse, either emotional and/or physical from siblings? I mean how this might affect siblings' mental health, maybe the parents' mental health as well.

- [Joy] It's interesting. I would say that would generally occur more often in families where one or both of the parents have previously been exposed to domestic violence

or abuse and neglect themselves. And then when we see that sibling abuse, if it's really abuse as opposed to siblings fighting like they do anyhow, I would suspect that they're being exposed to some kind of violence themselves, so that there may be domestic violence in the family, there may be domestic violence in the extend family in some ways. Maybe you we shouldn't call it violence, but fighting they see, because children, children reflect what they learn. And if a sibling... Siblings are obviously jealous of each other, and there's going to be some kind of behaviors back and forth that occur in siblings, but it's usually within moderation and usually there's a parent or caregiver there who stops it and explains to them. That is the way we relate to the siblings. But if it really comes to the point of abusive behavior, I would think that they're being exposed to some type of abusive behavior or domestic violence or something like that, and then children repeat what they see, and they repeat what they hear. So, that would be what I imagine might be going on in a situation like that.

- [Amy] Thank you. There's just one last quick question because we do need to wrap up here. Could you repeat the name of the baby studies program? We have somebody who wants to find out if Michigan has a program like that, but--

- [Joy] Michigan does have a program. It's the Michigan Association for Infant Mental Health, and it's a very active one. So, I'd be glad to also... They also have a group called the Alliance. If whoever is asking that question would email me or I can email you, but if you look for the Michigan Association for Infant Mental Health, you can get that information and see what you want in that area. I'm glad you asked that question. I saw that, and Michigan has been very active. Mentioned before my involvement with the World Association for Infant Mental Health. That originally was associated in those journal, the Infant Mental Health Journal that's associated with the Michigan Association.

- [Amy] Well, we do need to wrap it up here. I know that there are a few questions we didn't get to. We do have Joy's email address on the slide there, up in the classroom if you have remaining questions. Joy, thank you so much for being here today. It was an excellent presentation. I appreciate you being here to provide it. I know you have a busy schedule, but thank you for being a part of our conference this week. Thanks again.

- And I'm glad I could be helpful. I'm glad so many people are interested in learning more about this important area that's gonna help young children.

- [Amy] Absolutely, thank you. And thanks again Trisha Self for being our guest editor this week. We appreciate you. Everyone, I do need to wrap it up. We have one more day of this virtual conference tomorrow. We have to see you then. But all of the events this week will be available in recorded format within usually a couple days or so after the live event. So in case you missed any, you can catch them in recorded version. Thanks, everybody, and have a great afternoon.