

The Science Behind Social and Emotional Development

Beth Zack: Welcome to "BabyTalks." Thank you for joining us. "BabyTalks" is a series of webinars for teachers, providers, home visitors working with infants and toddlers, serving Early Head Start, Head Start, and child care programs. These webinars will introduce you to some of the research behind the Head Start Early Learning Outcomes Framework, or the ELOF. My name is Beth Zack, and I'm from the National Center on Early Childhood Development, Teaching, and Learning. My colleagues and I from I-LABS – the Institute for Learning & Brain Sciences – will be presenting these webinars. I-LABS, a partner organization in the NCECDTL consortium, is one of the leading infant research centers in the country. Today, we'll be talking about a topic that's been on a lot of our minds during this trying year – infants' and toddlers' social and emotional development. But we, the adults – we are a huge part of that because at the heart of social and emotional development are relationships.

If it feels comfortable for you, I'd like to begin with a short reflection. Think about your own relationships. What one or more first come to mind? Maybe you thought of relationships at work with other staff, the children in your care and their families, or families on home visits. Or maybe your own home came to mind – a partner, your children, grandparents or friends, or people in your community. What do you value about those relationships? Relationships build belonging. I value how they help us feel supported and cared for, whether we're 1 or 99. Today, we're going to be talking about the science behind social and emotional development in the context of our earliest relationships. The relationships we build with young children – they teach them and us so many things about security, caring for one another, and developing strong attachments to people in our lives and our communities. Look at this tiny baby. How do infants learn to trust and connect with others? How do they use social cues to communicate and understand others' emotions? What makes them feel loved and supported so they can form friendships, use language to communicate their emotions, and show care and concern for others as they grow into toddlers, preschoolers, and beyond.

Here's our learning objective for today. By the end of this webinar, you will be able to use your understanding of social and emotional development to build stronger relationships to support all children's learning. We'll focus on three areas that help meet our learning objective. We'll start with how early relationships support children's social and emotional development and set the stage for a lifetime of learning. Then I'll describe more research about how social and emotional development supports learning across the ELOF domains. And finally, we'll talk about relationship-building strategies you can use to support children's social and emotional development.

Let's jump into that first section. Early relationships supports infants' and toddlers' social and emotional development that set the stage for a lifetime of learning. Our brains are wired for social connection. What do you see in these images? Chances are you saw a face in each one. Even if there's only the slightest suggestion of facial features, the brain automatically interprets it as a face. Like adults, newborns are attracted to faces or even things that vaguely resemble

faces. Take a look at these two images. They're essentially the same. They both have three squares and a round part of the blue shape. But which one looks more like a face to you, A or B? Well, most people say B because the three squares are arranged in a more face-like way. The two squares on top could resemble eyes. The square on the bottom could be a mouth. But in A, the configuration is flipped. If you show babies these same two images, they spend more time looking at B. They may not understand what they're looking at, but they prefer to look at something that has similar features to a human face. This is yet another indication that babies are born social creatures. But the faces that infants and toddlers prefer to see are these – a parent, a grandparent, a trusted caregiver, or teacher. From the child's perspective, all faces are fascinating. Each one presents the possibility for comfort and understanding, for support and care – a relationship. And that's what infants and toddlers crave at this age. It's what they need – a relationship.

And it turns out, we're actually born with an inclination toward interacting with other humans. A classic study done by I-LABS co-director Andrew Meltzoff found that we are social from birth. Early in his career, Dr. Meltzoff went to hospitals and made faces at newborn babies – what a fun job – faces that young infants are able to do, like sticking out your tongue. And what he found was pretty remarkable. Within hours of birth, babies imitated his facial expressions. These infants begin to imitate even before they know that they have a tongue to stick out or a mouth to open. These findings actually came as quite a surprise. It really changed how we think about infants. They are born learning. Infants are born wired to connect with nurturing adults and form these central early relationships. In turn, these earliest and primary relationships literally shape the architecture of the brain, setting a foundation for learning throughout life. It's not just about infants and toddlers, but us adults, too. We have a really important job to do. We help infants understand themselves and connect to others. We help them feel safe, cared for, and loved. We are an essential part of their social and emotional development.

Relationships build our brains. When an infant sees our face, hears our voice, feels a touch, and gets comfort from that, that makes connections in the brain. Those connections get stronger, and then they build new connections, and so on. This is brain building in action. If you'd like to learn more about early brain development and missed our January "BabyTalks" webinar on building the brain, you can watch it through our streaming platform, Push Play DTL On Demand. I really encourage you to check it out. And with new technologies, we can actually see brain building happening. Let's look at touch as an example. Researchers at I-LABS looked at the brains of infants as they were being touched. And we've known for a long time that adult brains have a sort of map of the body, and stimulating a part of the body will cause very specific parts of the brain to activate. And it turns out this is true of infants, as well. When you touch an infant's hand, you stimulate this body map in their brain. You're not simply building a relationship with that child and giving that child a sense of security and belonging, all of which is true and important, [Inaudible] but helping that child reinforce these connections. When you touch a child's foot, you can see corresponding parts of the brain firing, learning what touch is. Infants are able to perceive and process touch in their brains from a very early age in a sophisticated way.

And as I mentioned, it's not just our touch, but seeing our face, hearing our voice that makes that connection in the infant brain. And what's particularly important to infants is a familiar caregiver. Researchers show that newborns prefer to look at and listen to a familiar caregiver. Their brain activates differently than with a stranger. For example, newborns prefer to look at their mother's face and listen to their mother's voice compared to a stranger's. They even prefer hearing the language their mother speaks over a foreign language. This familiarity actually helps children learn. When babies listen to their mother, areas of their brain related to language are activated, but this does not occur when they are listening to a stranger. This is just one way that social and emotional development supports learning across other domains, such as Language Development.

Now, these research studies looked at mothers, but these findings are important for fathers and all of us who care for young children. Continuity of care really matters for establishing strong social bonds between an adult and child. The more time spent together, the more opportunities for connection and learning to occur. Keep this in mind for virtual check-ins and as children transition back to full in-person-learning settings. During virtual check-ins, young children can maintain familiarity with you by hearing your voice and seeing your face. Keep these sessions positive and brief. Try a game of peekaboo. Read a short book or play a fun game, like "I spy," to connect. Remember – even if you were a child's caregiver before their extended time away, they might need some extra support and time to rebuild those connections in person when they return to your program. Be consistent and responsive and patient to meet children where they are. Making authentic connections matters to infants and toddlers. In one study, researchers found that 5-month-olds prefer to listen to recorded laughter between friends compared to laughter between strangers. That warmth and familiarity and that history of relationships actually came through in the laughter between friends, and babies could sense that authentic relationship. How cool is that?

And remember – as teachers, providers, and home visitors, making an authentic connection with families matters, too. Over the first few months of life, a baby's preference for familiar people develops into intimate relationships. Over time, that infant-adult relationship develops into what researchers call an attachment bond. An attachment bond is the lasting emotional bond that forms between infants and primary caregivers. A child can have attachment bonds with multiple adults in his or her life, and each relationship can be different. Children come to depend on these relationships, not only for protection, but for emotional and social support. Strong bonds with their primary attachment figure are particularly important in development.

Forming emotional bonds is the foundation for all learning across domains. But what happens when infants and toddlers don't experience supportive, responsive care? Many of you may have seen a video from the classic Still Face experiment. Dr. Edward Tronick designed this research study to look at that social and emotional relationship between caregivers and their children. I'm going to describe the experiment because, unfortunately, we don't have permission to share the video with you today. But I did include a link to that video in your resource widget if you'd like to watch it. It's quite powerful. In the Still Face experiment, Dr. Tronick wanted to see what happens when a caregiver no longer responds to their infant's

needs. At first, that caregiver is engaging with her child in a back-and-forth interaction. In this photo, the mom's actually singing "The Wheels on the Bus," and her infant is sort of imitating some of those actions and her facial movements. And then the mom is following the lead, and then she's imitating the baby back. Then the caregiver is asked to stop being socially and emotionally responsive to her infant. She turns around, and when she turns back, she just sits there and stares at her child with a blank expression for two long minutes.

And at first, infants try to re-engage their caregiver. They might smile or vocalize or point. This little girl gives a little wave. They are used to their caregiver responding. And eventually, they become distressed. When that long two minutes is up, the caregiver is able to engage with her infant again. When children are used to responsive caregiver, they're happy to reconnect to their caregiver again. "Finally, she's interacting with me like she normally is." This is important because there will always be times we can't immediately respond to a child's needs, and that's OK. In the context of relationships, of these supportive relationships, the distress a child feels is buffered because of that relationship. Remember the touch study I described earlier? Well, another group of researchers did the Still Face experiment again, only they allowed one group of caregivers to touch their infants with their hands while otherwise being unresponsive. And those infants were actually less upset, and they smiled more, compared to infants who did not have that caregiver touch them during the unresponsive period. Touch is an amazing way to create and maintain connections with infants and toddlers.

Children benefit from multiple strong relationships, but even just one strong relationship can help buffer the impacts of stress and/or traumatic experiences in young children's lives. Resilience equals relationships. Why is that? Well, it's exactly what we've been talking about. Brain development during these first few years of life depends on strong social relationships with a primary caregiver. Over time, this yields positive outcomes for the child that persist into adulthood. The benefit of at least one responsive, consistent caregiver goes beyond our social and emotional skills. Early relationships set the stage for the quality of our future relationships, academic motivation and achievement, our ability to persist through challenges, and our cognitive and executive function. We've touched on some of the science behind social and emotional development, but in this next section, I really want to make the connection between the research and the ELOF.

The ELOF has five central domains for infants and toddlers. They are Approaches to Learning, Social and Emotional Development, Language and Communication, Cognition, and Perceptual, Motor, and Physical Development. We're going to continue with some examples within that Social and Emotional development domain, but there is so much research in this area. I would honestly need weeks to cover it all. But the good news is, is that there are a lot of great resources on the Early Childhood Learning and Knowledge Center, or the ECLKC, that I've provided in the resources widget for you. And this includes a "BabyTalks" webinar that I did last year on infant and toddler behaviors that can challenge adults. These behaviors are a big part of children's early social and emotional development, but I'm not going to be covering them today since we already have this great webinar and other resources and plenty to talk about.

We've established that children learn in the context of their early relationships, but how does an infant or toddler know what to pay attention to, what to learn about during these interactions? Luckily, they have us. We can help them. In addition to giving them that comfort and support, we can give them cues. Take eye gaze, for example. From a very young age, children in many cultures are tuned in to a big part of social learning – the eyes. Through eye gaze, infants and toddlers create a strong emotional bond. This connection helps a baby feel loved and learn about other people. Eyes are the basis for watching others, communicating, and imitating, and they show you where another person is looking and directing their attention. By about 10 months, children are starting to understand that looking at another person's eyes actually gives a lot of valuable information. They're also starting to incorporate objects into their interactions with adults. Let's take a closer look at some of this research.

In this study, a researcher sits at a table across from an infant, and there are identical toys on other side. First, she established eye contact with the infant, and then she turns to look at one of those toys. She doesn't say anything, and she has a neutral expression. And what does the baby do? Well, the baby turned his head to look at the same toy. Looks like the baby was thinking, "She's looking at that. Must be interesting. I'm going to look at that, too." The eye gaze is a cue prompting the child to look. When do infants realize the eyes are important to share attention? 9-month-olds actually tend to follow the experimenter's head turn when their eyes are open and when they are closed. But between 10 and 12 months of age, infants tend to follow the adult's gaze only if their eyes are open. They begin to realize that the eyes are important for communication. This places them on a path toward eventually understanding the thoughts and attentions of others.

Researchers at I-LABS have recently extended this work to look at gaze following with deaf infants of at least one deaf parent, and they've found that infants who are deaf showed enhanced gaze following compared to hearing infants of the same age. Infants pay special attention to eye gaze as a social and communication tool [Inaudible]. Infants' gaze following is also related to their language development. Researchers found that infants who are better at following adults' gaze were more likely to have better language skills at 18 months and use more words describing emotions and desires like "wish," "need," and "happy," at 2 1/2 years of age. Non-verbal forms of communication, like eye gaze and pointing, can be helpful for supporting language development in all children, including children who are dual language learners. The longer a child looks at an object or event, the more time that you have to provide language to describe what they see. And this supports goals in the Social and Emotional Development and Language and Communication domains of the ELOF.

A goal of the sub-domain Relationships with Adults is the child learns to use adults as a resource to meet needs. This includes behaviors such as looking, smiling, pointing, and reaching and dropping objects. And a goal of the Language and Communications sub-domain, Attending and Understanding, is the child attends to, understands, and responds to communication and language from others. Sharing attention through eye gaze and gestures helps infants to learn language and form social connections before they can talk. But eye gaze isn't the only way to share attention and connect to others. In some cultures, adults teach children they should

avoid eye contact with speaking to an adult out of respect. But then again, in other cultures, it's an important part of social interaction. These are things we need to navigate, and they influence how caregivers use eye gaze to connect with their young children. And not all children use eye gaze to form these social connections. For example, research suggests that children with autism spectrum disorder, or ASD, show typical patterns of eye contact of infants. By the time they are 2, children with ASD typically show an aversion to looking at eyes. Children with ASD may engage with adults in other ways, like imitation. In fact, research shows that after imitation sessions, children with ASD engage with adults who imitate them. They also show more social behaviors, like looking, smiling, and playing with other children.

Imitation can be a powerful tool for building relationships and learning from other people. Learning by watching others is especially helpful for infants before they can talk, and young children love to imitate. They watch us, and they want to be like us. When you imitate them back, they know that you're in synchrony. They're making a social connection and establishing that back-and-forth relationship pattern. Through imitation, children also learn social rules, like what to do, how to do it, and when to do it. These early social experiences set the stage for later learning. Early imitation supports goals in the Social and Emotional Development and Cognition domains of the ELOF. Imitation and playing with other children is a goal of the sub-domain Relationships with Other Children, and showing confidence in their abilities through their relationships with others is a goal of the sub-domain Sense of Identity and Belonging. For Cognition, a goal of the Imitation and Symbolic Representation and Play sub-domains is for children to observe and imitate sounds, words, gestures, actions, and behaviors. Children use imitation to learn more about the world and themselves. In the process, they gain a better understanding of other people and their own culture.

Another important part of social and emotional development is understanding our own and other people's emotions. There's evidence that even 3-month-olds show basic emotions, like happiness and sadness, but a 3-month-old is in the early stages of emotion understanding. They have a lot to learn about how to feel, act, and relate to others. How does this mother feel with her daughter during a home visit? How do you think this little boy feels? And what about this teacher? As adults, we sense happiness when the corner of a person's mouth turns up, and when the corners turn down, we know they likely feel sad. We pick up on subtle changes in other people's mouth, their eyes, and even their eyebrows, and we use those to make sense of how they are feeling. How do infants go from expressing emotions to being able to interpret and use other people's emotions? Language helps them first understand, then use words to describe how they feel and how other people feel. Well, what do they do before that?

As we've said, children are drawn to faces, and one of the things they get from faces is a growing awareness and understanding of emotions. That's one of the things we do in our relationships with them. We help them to understand what emotions are and how to manage them. We help them regulate their emotions. And they look to the faces of trusted adults for support and comfort in uncertain situations. "Is this person safe to me? Is this tunnel safe for me to crawl through? Can I keep going, or should I stop?" Researchers call this social referencing. Young children look at our emotional reaction to gauge how they should feel.

There's a classic research study called the visual cliff. It was designed to examine the development of social referencing. And for this study, pre-verbal children were placed on this raised platform. Now, to young infants, it appears to have two levels with a 3-foot cliff in between, but really, there's this plexiglass cover across the whole platform, so it's entirely safe. They can't fall. A child is brought to one side, and the caregiver goes to the other with an interesting toy. And the child is allowed to crawl to their caregiver and the toy if they want, but with the visual cliff there, the child isn't sure it's safe. They look to their caregiver. In some instances, the caregiver makes a frightened warning face, like this. And other times, they are asked to smile encouragingly, like this. No words were used at all. The only information the child got was that smiling or the frightened face. It was enough. Most of the children whose caregivers were smiling crossed over, and most of the children whose caregivers appeared frightened did not.

Infants understood these emotional cues and used them when they were uncertain what to do. But what if infants hadn't been uncertain about what to do? To test this, researchers reduced that steep drop-off to just a few centimeters to create a shallow cliff. The cliff appeared safe to infants. This time, most of the infants didn't even look to their caregivers for advice about whether it was safe to cross. And when caregivers displayed that fearful expression, even if children did look to them, they crossed anyway. They knew they had the ability to safely cross. They looked to their trusted caregiver as a source of information when they were unsure what to do. These support goals within the Social and Emotional domain of the ELOF. Between 8 and 18 months, children look to adults for emotional support and encouragement. In this and a follow-up study with a shallow drop-off, children also used perceptual information in combination with their caregiver's emotional cues to decide whether it was safe to cross. This supports a goal within the Perceptual, Motor, and Physical Development domain of the ELOF.

These findings are important in thinking about our relationships with children's families, too. Children watch how we interact with their family – the words we say, the tone of voice we use – and they use what they observe to learn that we are safe and that we are someone that they can trust. Children recognize emotions, which is great because emotions help them understand and make decisions about their environment. But remember, at first, they can't understand emotions, other people's or their own. They need help. They need help regulating their emotions so they can begin to understand and control them. Responsive, supportive relationships help young children to regulate their emotions, behaviors, thoughts, actions, and attention. This is called self-regulation.

In the early years, children are hugely dependent on adults to help them manage their emotions. We provide a bottle when they are hungry. We sing songs or walk them when they are upset or tired. We set up routines and respond consistently so they learn what to expect. With consistency, children learn they can count on us to be there for them. They learn strategies for regulating their emotions. Self-regulation skills develop over the entire course of childhood, in the context of caring, consistent relationships. In fact, research shows that the quality of the interactions between an infant and a parent are predictive of a child's self-regulation skills. How well a baby manages emotions during their first year is influenced by the

quality of our interactions with them, and even more so by what researchers call mind-mindedness, which is caregiver's ability to understand and manage the physical and emotional states of their baby. It's how in tune parents or caregivers are to the child. Researchers measured mind-mindedness by observing whether parents respond appropriately or inappropriately to their child's emotions during free-play interactions.

For example, imagine a child becomes overstimulated by too many toys or other children. They might turn away from their caregiver, tune out, or have a frantic moment. A mind-minded parent understands the child's signal. They respond appropriately by pausing the play and enabling the child to recover. This often enables the child to return to play. When such responses are repeated over and over, children learn from their caregivers how to manage their own emotions. This is why it's so important for us to make time for our own wellness. When we feel supported and confident and well, we're better able to respond and help children regulate. We're better able to make these great connections.

A strong relationship, plus being sensitive and responsive to a child's cues, supports their growing ability [Inaudible]. This supports both managing feelings, emotions, actions, and behavior. These goals are found under the sub-domain Emotional and Behavioral Self-Regulation and Approaches to Learning and Emotional Functioning in the Social and Emotional Development domain. Self-regulation skills are fundamental for success in life and school. They are part of a suite of skills called executive functioning. They include the ability to think flexibly, to solve problems, to pay attention and focus on a task, to remember rules and procedures, and the ability to control emotional impulses.

Now, we've covered a lot of examples about the science behind social and emotional development, and there are so many more I could share. And as I wrap up this section and move through the next, I'd like for you to keep in mind that infants and toddlers learn best across the ELOF domains when they feel safe and cared for. I'd love to spend the rest of our time together talking about ways to build relationships to create spaces that you can use to help families and children in your program develop those strong social and emotional skills. These strategies are important whether you're providing full, in-person services or still transitioning toward in-person programming or offering some virtual services. We'll cover these six key areas – responsive caregiving, engaging in back-and-forth interactions, reading and responding to cues, providing emotional regulation, setting up the environment and creating everyday routines, and making time to play. Each of these are connected. Being consistent and nurturing is also important during routines and a key part of back-and-forth interactions. And during those back-and-forth interactions, we read and respond to cues, we make them playful, consider the child and their environment, and we create quiet, safe places for them to occur. We build relationships moment by moment, day by day.

Responsive caregiving refers to parenting, caregiving, and effective teaching practice that is consistent, nurturing, and responsive to a child's temperament or the way they approach the world and their needs. Responsive caregiving builds on social, responsive, back-and-forth interactions. It helps us get to know each individual and child, including their strengths and

challenges. Each child has strengths rooted in their family's and community's cultures, backgrounds, their languages, traditions, and beliefs. Make those authentic connections with families to learn about them. You can use that knowledge to adopt the classroom and home activities, and home visitors – they can help parents use their observation skills to pay attention to small cues their child might be giving. Responsive caregiving fosters trust and emotional security. We let children know they matter when we are nurturing and responsive to their needs. Because young children's learning and brain development happens in the context of relationships, responsive caregiving supports a foundation for most other learning in young children.

When you are in the moment with an infant or toddler, check in with yourself. What is going well? What do you need to be more responsive? Infants and toddlers learn through social, face-to-face interactions with the people around them. Being responsive during back-and-forth interactions is more than just the words that you say, although those are important, too. It's the tone and warmth in our voice, like, "Ahh," or speaking using speech that's slowed down and the vowels are exaggerated, like, "You are so big!" It's also our eye gaze and gestures. Spending quality time together means children have more opportunities to share attention. "I see you. I see what you see. We are in sync." This is a skill you can naturally incorporate into play to connect and help children learn. Home visitors can model eye gaze and pointing for caregivers and help caregivers recognize when their child's attempting to share attention with them. You can do this during virtual visits, too.

Keep in mind that, as we talked about before, not all children or families feel comfortable engaging using the eye contact. There are other ways to share attention and participate in back-and-forth exchanges. Remember – children love to imitate. And you can imitate them, reflect that behavior back to them. In this photo, the little girl doesn't have the language to say, "All done," so she shows her provider through gesture, and her provider responds by – she imitates the action. We also talked about touch. It's a great way to connect and communicate, and we know it builds connections in the brains. And then there's our facial expressions, like a warm, comforting smile that shows comfort, security. See what the child likes and pay attention to their cues. Are there other ways the child might prefer to engage? Try it out and see how the child responds. Home visitors can collaborate with families to help them identify what works best for their child. During those virtual check-ins, watch a child's cues and ask families, "What has your child been interested in?" And then think of ways to incorporate that into your time together. Supporting children's emotional regulation is a big part of building relationships, of being that trusted, responsive caregiver.

Young children have big emotions, but they need us to help them manage them. You can validate children's emotions and provide empathy. Let children know it's OK to feel the way they are feeling. You are there for them. Connect feelings to pictures and help children put their emotions into words. You can also use gestures or sign language to help all children communicate their feelings or needs. For younger children or those with disabilities or suspected delays, try using puppets to talk about different emotions and act out different scenarios. Provide options to help children manage their emotions, like a quiet place to calm

down, taking deep breaths [Breathes deeply] or physical comfort, like a hug. Read infants' cues to see what they respond to. Do they need a quiet space or for you to hold them or maybe both? You can describe infants' and toddlers' emotions using a soothing voice. [Soothing voice] "You're so upset right now. Let's take a break and snuggle for a minute." [Normal voice] This teaches them about emotions and later define them. As children begin to talk, teach them to use words to express what they need and how they are feeling. With adult support, children will develop strategies for dealing with strong emotions and build brain connections necessary for more sophisticated self-regulation skills as they learn and grow.

One of our jobs is to read and respond to children's cues during these back-and-forth interactions. Creating a pattern of responsiveness over time helps children learn to regulate their emotions and behaviors. It builds relationships and connections in their brains. Pre-verbal babies and toddlers use many of these cues, too. Even when they can't talk yet, I like to have time to communicate my part in a conversation. I look, I coo, I imitate you, and you respond. The timing of responses are important. Remember to pause and give babies a chance to engage again. This keeps the conversation and connection going. Research shows that when babies receive immediate or contingent feedback to their sounds or actions, they babble more, and their babbles become more complex. You're building a relationship and supporting language development at the same time. Sometimes an infant or toddler uses cues to show they are not ready to engage, or they need a break. They might turn away or cry out or hide behind the caregiver's leg. Let's watch a video example. In this video, the adult, Keisha, noticed that one of the children in her program was a little unsure about the person in the room who was there filming. And let's take a look at how she responds.

[Video begins]

Keisha: [Gasps] Oh! You're choosing the shaker with the bells. Come on, Mia. You want to come? You want to come see our toys? You're still waking up, huh? Let me help your friend Mia. I think she's feeling a little shy. Ms. Liza, can I trade you? Mia, come here. How are you? Huh? Good seeing your friends in a classroom? Yeah? Yeah? You have some friends in here, huh? Do you want to play? What do you want to play with? Look what we have here. Let's see. Let's see. What do you choose, huh? I have the purple ring. Ooh, you going to use the ladybug, huh? [Singing] Ladybug, ladybug, shake, shake, shake, ladybug, ladybug, shake, shake, shake. [Chuckles] [Speaking] I see you. I'm still here. Yes. I had to go get your friend Mia. She was feeling a little shy. Yes. Watch this.

[Video ends]

Beth: What did you notice in this video? Do you think the little girl's familiar with Keisha? How can you tell? I noticed responsive caregiving. Keisha noticed this little girl was feeling a bit reluctant to engage. Her voice was calm. She was warm and nurturing. She was gentle in her approach. She smiles and she picked up the child and she engaged with the child when she brought her near the other infant to play. This little girl might have even felt a little bit of stress at the stranger in the room, but not all kinds of stressful situations are necessarily bad. A child can learn, for example, that a new person in the room is a safe person, as long as the child feels

supported. It's important for the caregiver or teacher to be available and nurturing, but also calm, as Keisha was. We talked about faces and other social cues. With a warm and responsive adult, young children can more easily move through mildly stressful situations and learn from them. Infants and toddlers thrive in predictable environments. Unpredictable can be stressful, like having somebody new in the little girl's space in that video.

Knowing what to expect essentially allows them to free up their brain power to pay attention to and learn other things. Safe and cozy, warm spaces makes it easier for them to focus on building relationships. You can reduce the noise level in the room or create quiet spaces for children who are easily overwhelmed. This can be particularly helpful for children with visual or hearing impairments or those who struggle with sustaining attention. Build a sense of belonging by including children's families, their culture, and community in your space. You might hang up pictures, like in this photo, or ask families to include items from home. Visual schedules and support during transitions teach children what to expect next. You can use the verbal first-then strategy. "First, we change your diaper. Then we wash your hands. First, we read a book. Then it's time for nap." This strategy helps babies and toddlers learn predictable sequences, while allowing schedules to flex as they grow.

In this photo, I love that they included photos of the children and descriptions in both English and Spanish for children and families who are dual language learners. The apples are actually significant, too, as the children's families work in local apple orchards. This is a small but important way to incorporate families and communities into the learning environment. Schedules and routines help build relationships by teaching young children what to expect and that you'll be there for them – to change their diaper, to read a book before nap, to give them their bottle, to pick them up at the end of the day. During virtual check-ins, encourage families to maintain or establish routines at home. When children transition back to in-person care, establish new routines right away. Talk to families about what was working at home. Then try a similar approach in your center or family child care. When children know what to expect, it's easier for them to practice regulating their emotions and behaviors. But keep in mind, even when children know what to expect, these transitions, both big and small, can be hard. Reading together is a wonderful relationship-building routine for your learning environment or for home visitors to encourage families to include in their routines at home. Thumbing through a book to look at pictures and talking about what you see can be a great strategy for adults with low literacy.

Consider a family's culture. For some, it's primary oral, so storytelling is a wonderful approach. All of these ways promote bonding and feeling close and connected. Reading benefits not only children's language and literacy development, but research shows when caregivers read with infants, it's related to more gentler parenting – using less harsh words and actions when those children are 3. And reading at 3 was related to gentler parenting at 5 years of age. Now, I love seeing routines in action, so let's watch a video of this home visitor talking to a mom about how to support a young toddler during routines. It's primarily in Spanish, but focus on the adults' cues rather than the words. And if you don't speak Spanish, you can also follow the captioning if

you'd like. As you watch, think about how the mom is building her relationship with her son during a clean-up routine.

[Video begins]

Mom: [Singing in Spanish] Clean up, clean up, time to put the toys away; clean up, clean up, time to put the toys away.

Home visitor: [Speaking Spanish] Do you have more?

Mom: [Singing] Clean-up, clean-up, everybody and everywhere, clean-up, clean-up, every ... [Speaking Spanish] My turn. It's my turn [Singing] Everybody do your share. [Speaking Spanish] Look, we missed one.

Home visitor: [Speaking Spanish] Finished.

[Video ends]

Beth: What did you notice about this routine? This mom sings to support her toddler. She uses a quiet, calm voice, which matched her toddler's calm demeanor. I honestly felt calm just listening to it. The mom models putting the crayons into the jar, and the son follows her lead. They are in sync. And did you notice anything about the home visitor? She also served as a model for the mom. She signs and says "más," or "more," as the child puts the crayons away. She also acknowledges the child's vocalization at the end with that calm, "Ahh." And this brings us to the last area I want to mention – play. Playing with children is one of the best ways to build and strengthen your relationship. And it's fun. When children play with other children, it gives them an opportunity to practice their social skills, learn to manage emotions, and build relationships with peers. Letting a child lead is a great relationship builder. Follow their cues and interests. Use the strategies we've been talking about to connect.

And play with toddlers might be a bit more obvious because they're more interactive and they're on the move. But we can play with babies, too. Physical games, like bouncing on the lap, that gentle touch we talked about, peekaboo, imitation, and book reading. And I promise it's OK if they chew on the books. Most babies also love sensory play and singing songs and rhymes. Music can also be a great way to connect. You can gently bounce an infant in your arms to music or have toddlers clap their hands to that steady beat. And research shows that infants who are moved in sync to music with another person were more likely to engage in helping behavior following the music session. Music can build our social and emotional development skills, too. As you play together, infants and toddlers are practicing how to share attention and are developing language and communication skills.

As we wrap up today, I'd love for you to continue to think about how you can add more of these relationship-building strategies into your everyday interactions with the children in your care. And I want to bring us back to where we started, the heart of social and emotional developments – relationships. Research shows that children's social and emotional skills are

strengthened and supported through responsive caregiving from parents, caregivers, and teachers. Through relationships, we build belonging and community. We learn what it feels like to be cared for and loved. Relationships build connections in our brains. When children feel safe, supported, and cared for, they are ready and able to learn.

Thank you for your attention and all the work you do to support the children in your care. Thank you again for joining the webinar today. We hope to see you again when our "BabyTalks" series resumes in December.