

# The World We Make

-2020-

Center for  
**healthyminds**  
UNIVERSITY OF WISCONSIN-MADISON

**healthyminds**  
innovations

## The Developing Mind Transcript

October 6, 2020

**Presenters: Sarah Short and Julie Poehlmann-Tynan with an introduction and guided meditation from Richard J. Davidson**

>>**Richard J. Davidson:** Good evening everyone from Madison, Wisconsin. It might not be evening for some of you and whatever time zone you might be in. It is really a pleasure to welcome you to the second evening of our week-long series of events that we call “The World We Make.” This is a series of events in honor of the 10th anniversary of the Center of Healthy Minds. The mission of our Center is to cultivate well-being and relieve suffering through a scientific understanding of the mind. In 2010, when our Center first began, His Holiness the Dalai Lama was in Madison to help us inaugurate this auspicious occasion. And on this 10th anniversary in this really challenging time in which we are living, we have decided to make this virtual and invite the whole world. And so tell us where you are from and maybe put in a word or two about how you’re feeling right now in the chatbox, as we settle in for our time this evening.

So, there are folks joining us I see already from all over the world, from Chile, from Brazil, from different parts of U.S. Welcome everyone. It’s great to have you. And one of the silver linings of this COVID era is that we can invite everyone to join us, and it’s been truly heartening to see the community we co-create together, so diverse and wide.

Before we begin this evening, I would like to take a moment to thank our sponsors without whom we not be able to put on this event. Chris and Sara Fortune, the MGE Foundation, Jim and Judy Hirsch, the Outrider Foundation, the QTI Group, Atomic Object, Delta Property – all have whom played an important role in supporting this event. I’d like to remind you that all of these events are at 7 p.m. Central Time in the U.S., so please join us for the remaining evenings. Tomorrow will be focused on well-being at work, and Thursday will be focused on “Resilient Minds, Resilient Planet,” and it will feature a major new initiative at our Center called the Loka Initiative. And then finally on Friday, we’ll be showing excerpts of a dialogue that I recently had just a few weeks ago with His Holiness the Dalai Lama on the occasion of the 10th anniversary of our Center. So tonight is a really special night because we are focusing on the developing mind. And whenever we ask the Dalai Lama to give us some words

of hope and inspiration, he inevitably talks about young children and the importance of education, the importance of nurturing positive qualities of the mind. And yet, we are living in an age where the challenges are vast, the inequities are pronounced, the injustices are really vast. And the two participants that we have this evening are both dedicating their lives to improving the life of children in our society today, and particularly children who are subjected to extraordinary adversity and to trauma. So I'd like to introduce each of these people to you. They are both faculty who are part of our Center. Sarah Short is a new Assistant Professor in the Department of Educational Psychology. And Sarah holds the Dorothy King Chair in Contemplative Education in the Center and the School of Education. And with her is Julie Poehlmann-Tynan. And Julie is a faculty member in the School of Human Ecology. And Julie holds the Dorothy O'Brien Professorship in Human Ecology. And they are going to do a little dance together. I'm not exactly sure how it will unfold.

But they will each share a little bit about the amazing work that each is doing, with Julie doing some extraordinarily powerful work on incarcerated parents and how that impacts the development of children. And Sarah has been working on the impact on poverty in young children and how it impacts the developing brain. And the insights each of them has gleaned has led each of them to explore how we can better serve these youth and improve the lives that they lead. So it's really an honor to have you both this evening, and I will turn it over to you. Thank you, guys.

>>**Sarah Short and Julie Poehlmann-Tynan:** Thank you, Richie.

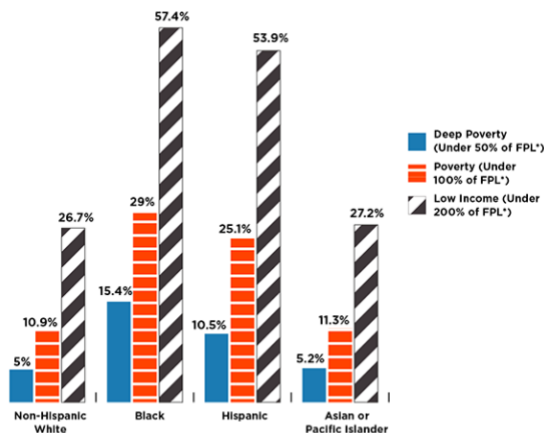
>>**Sarah Short:** It's good to be here. So I would like to ask the audience: Could we just do a check in, and would you all please take a moment and notice how you are feeling and if you would, please with just one word share what that is in the chatbox.

Interested, content, depleted, peaceful, grateful, light, tired. I am seeing a lot of repeats. Blessed. Achy, yeah... There is a lot of common ground. We have people here from all over the world tonight, and the range of emotions and feeling is really vast, but for everything that everyone is feeling, there is somebody here who is also sharing that with you. Thank you! I appreciate you sharing with us. So I will take a moment to introduce you more specifically to the topics that we will cover this evening. And while we will focus on topics that may be a little bit on the extreme ends – we'll be talking about poverty and trauma as well as things that can be done to promote resilience. I know that many of you are educators and parents, and you may just be wondering what you can do right now to support yourselves and your children and youth during this very challenging time. So, I will say that there is so much that you can do as caregivers to support your own well-being and buffer stress in children. And

this for parents and educators includes taking care of yourself and focusing on positive interactions with children. It's important to talk to children about the questions they have and what they're feeling and to acknowledge the difficult emotions and situations that kids are experiencing. So whatever that might be, trying to continue to provide emotional and physical support. And for you as a caregiver, a wonderful starting point is just coming back to the basics. This can be as simple as finding time for exercise or sunshine, eating healthfully. We know that sleep is incredibly important, as is taking time to acknowledge what you're feeling and giving yourself a break. So although many of us are physically distanced right now to prevent the spread of COVID, it's incredibly important to stay socially close and to feel connected and find support from friends and family. I will also share that we do have resources to support you from the Center of Healthy Minds [and Healthy Minds Innovations]. We have the [Healthy Minds Program](#), which is a free app that is available that provides mindfulness and meditation exercises and that can be a wonderful external support. So we will have some time to cover these more broad or general questions that you may have with a question and answer session. And now to turn to the topic for this evening, I would like to bring to awareness how widespread poverty is. And focusing on the United States, 20% of the population is living at or below the federal poverty threshold. And an even larger percent – 40% are children impacted by poverty. This is equivalent to 26 million children.

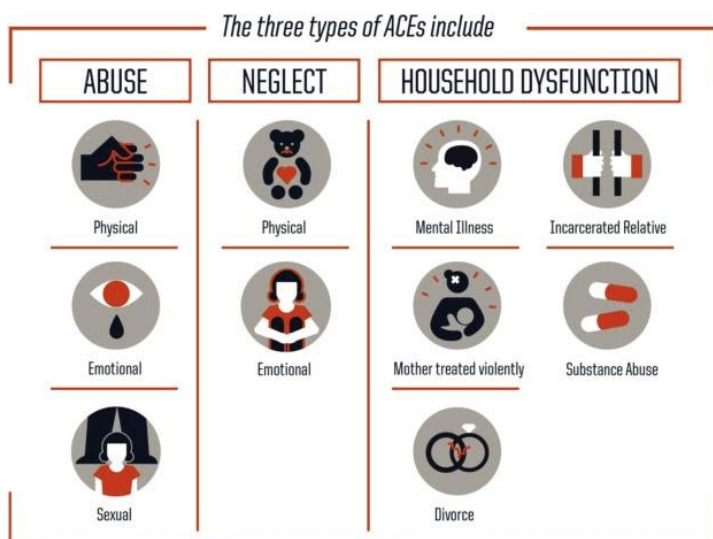
And we know that poverty is highest among Black and Hispanic children, which is more than double that of white children. So if you can see in this graph, we have along the horizontal axis, non-Hispanic/white children represented by the first three bars. And Black, Hispanic, Asian and Pacific Islander...

**Percentage of Children Who Are Impoverished or Low-Income, by Race/Hispanic Origin: 2017**



\*Federal poverty level.  
Note: Estimates reflect the new OMB race definitions, and include only those who are identified with a single race. Hispanics may be of any race.  
Source: U.S. Census Bureau, CPS Table Creator (online tool), available at: <http://www.census.gov/cps/data/cpstablecreator.html>

And if I just draw your attention to the black and white striped bars, you can see for the Hispanic and Black children, the rate of poverty that they are experiencing is twice that of children who are white. So this is an issue that is really growing now as a result of the pandemic. And that there is an expected rise in homelessness and food insecurity and other related trauma that will accompany it. So this is a systematic issue that touches every corner of our country and it has far-reaching consequences for the health and well-being of our country broadly. Children who are growing up in poverty have an increased risk for behavioral, social and emotional health challenges. And in turn, we also see an impact on academic outcomes as well as these circumstances undermine a child's capacity to learn. So we see difficulty in making it through high school with lower graduation rates, and sadly the beginnings of this trajectory are obvious before children even get to kindergarten. They are already behind. And currently there is little opportunity for many children to catch up. Another contributor to this uneven playing field is there is a high degree of exposure to trauma early in life. And this often accompanies circumstances of poverty. So trauma, or also referred to as "ACEs," which are adverse childhood experiences, are traumatic experiences that happen in a person's life before the age of 18.



>>**Sarah Short:** What you see in this slide [above] are three different categories of ACEs and different examples of each. And while not all ACEs are necessarily traumatic, some of them are, and it's children's experience of these events that is what

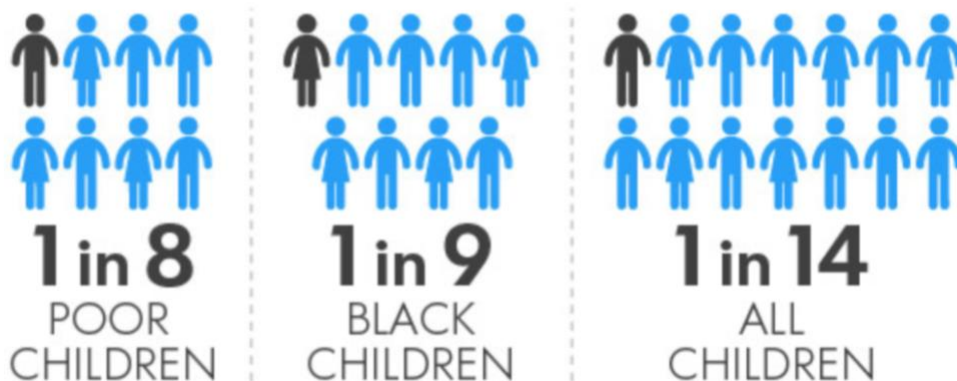
matters. So some children are impacted by a greater degree by certain types of events than others. And importantly, we know that children living in poverty experience traumatic events at a significantly higher rate, with a reported average of three or more ACEs compared to an average of less than one. So the impact of these early experiences is observed then across the lifespan with repercussions for mental and physical health, academic outcomes, job retention and earnings, as well as an increased likelihood of addiction and incarceration. So now Julie will tell us a bit about how a specific ACE (that is having an incarcerated parent) impacts children.

>>**Julie Poehlmann-Tynan:** Thank you so much, Sarah. I think it is really important to focus on these issues, and as you mentioned, I focus on a specific adverse childhood experience, and that is parental incarceration. And we know some of the short-term effects on children include loss, distress, developmental regression, confusion. And in a real minority of cases, there is some relief, especially if the incarcerated parent was abusive. But overall, long-term effects include behavioral problems – especially aggression – and mental health and health concerns, including depression and anxiety. And less optimal education outcomes, including academics and behavior outcomes. And this is particularly important because of the high number of children whose parents are incarcerated in our society.

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## PARENTAL INCARCERATION

More than 5 million U.S. children have an incarcerated parent.



So if you can see in this slide [above], we know that more than 5 million U.S. children experience the incarceration of a parent by the time they are 14 years old. And this only includes children whose co-resident parent is incarcerated. There are millions

more who are experiencing a non-residential parent who is incarcerated. And like poverty, there is a real overrepresentation of poor children and Black children in the number of children who are affected, which is really quite tragic and behind a lot of health disparities that we see in our society. What I would like to do tonight briefly is just illustrate how the developing mind is affected by these adverse experiences with a socially relevant example. And this is relevant because of recent police violence, especially against people of color – and the Black Lives Matter movement that is really fighting for social justice and equity – and that is when a parent is arrested before being incarcerated.



PRIOR TO PARENTAL  
INCARCERATION,  
2 IN 5 CHILDREN  
HAVE WITNESSED  
THEIR PARENT'S  
ARREST

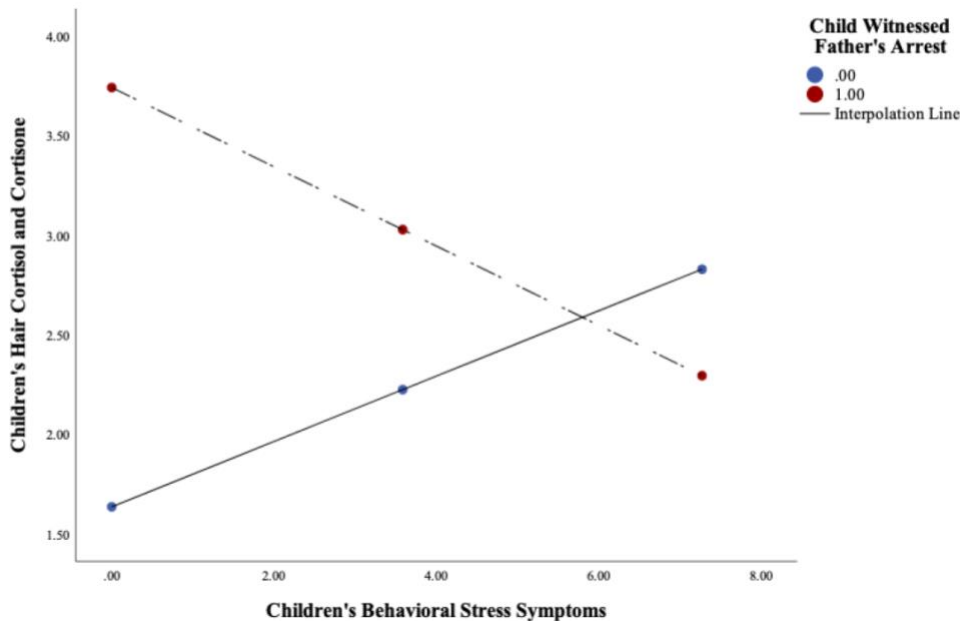
Of the Children who Witnessed  
their Parent's Arrest:

- The vast majority exhibit 'extreme distress'
- Less than 20% exhibit 'little to no distress'

Sources: Dallaire & Wilson (2010); Poehlmann-Tynan et al., (2017, 2020)

And as you can see in this slide, studies have found that about 2 in 5 children have witnessed their parent's arrest. And the vast majority of children exhibit what is considered extreme distress, like crying and screaming, and calling for the parent, et cetera. Now this makes me really think of some recent examples of police violence that have occurred in which the children have witnessed the arrest such as Jacob Blake in Kenosha, Wisconsin, whose three children were in the car and saw him getting shot by a police officer, and in 2016 in Minneapolis, Philando Castile was killed in the front seat of his car after being pulled over for a minor traffic violation. And his four-year-old step-daughter was watching from the backseat. And that's real trauma and things that we have heard about in the news. So, I just wanted to tell you a little bit about two recent studies that I've conducted that focus on young children who have witnessed the arrest of their co-resident or engaged parent, prior to the parent going to jail. And in the first study, we found that when young children have witnessed their parent's arrest, they showed elevated stress responses. We measured the cumulative

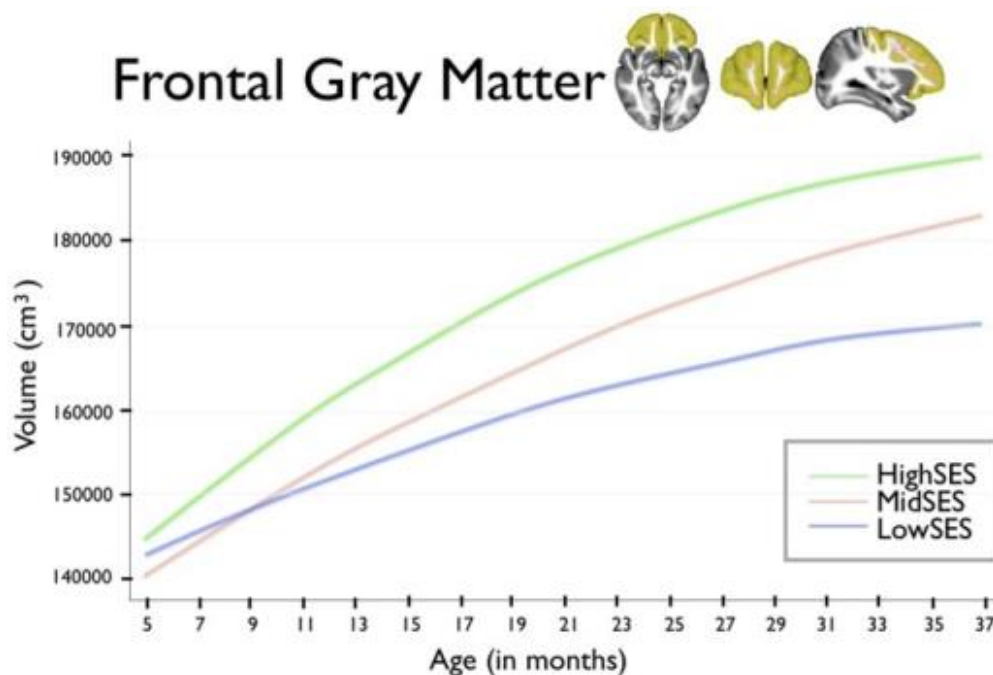
cortisol and cortisone concentrations in the children's scalp hair in the months following witnessing the parents' arrest... and cortisol and cortisone are stress hormones that usually increase when stressful events occur.



>>**Poehlmann-Tynan:** And as you can see in this slide [above], the sort of normal reaction that kids have when they encounter a really stressful event like witnessing the father's arrest, is this little red dot on the upper lefthand side. So the lefthand axis involves the level of children's hair cortisol and cortisone, with higher being more like a reaction to stress. And the bottom represents children's existing behavioral stress symptoms, even before they witness the parent's arrest. And you can see that there is a normal reaction for children who do not have ongoing behavioral stress symptoms and they witnessed the father's arrest – and that is that upper lefthand red dot. But the lower righthand red dot represents what's considered a really abnormal reaction, and that is when the kids already had stressed symptoms *and* witnessed the father's arrest. And in that case, the stress response was lower than what you would expect and really represents what some people call blunted cortisol or the kind of pattern that you see in adults with posttraumatic stress disorder.

>>**Sarah Short:** But what Julie was just describing is a blunted response that happens when kids have already been exposed to severe stressors and then they experience this traumatic event of their father being arrested in front of them. There was a second study that Julie was going to describe where they found that young children who witnessed their parent's arrest prior to jail incarceration, they had less optimal health

and witnessing the arrest also was associated with more subsequent missed developmental milestones, especially in the areas of reading and math. And so that means that they had less school readiness, which also links to some of the work that I'm doing with children who are growing up in poverty. So I just wanted to build on that and tell you a little bit more about some of the other mechanisms that might be behind these experiences and how they are actually impacting health and development later in life. There is a growing body of research showing that there is an impact on early brain development. And this is evident, even in the first years of life. And I want to emphasize the importance of these early years of life for a child's brain. Maybe not everybody realizes, but when you were born, all of the neurons in your brain had already formed. And they were already at the place in your brain where they would be for the rest of your life. Then, over the first two years of life, there is this tremendous amount of growth that occurs to connect these neurons and the different cells to other areas of the brain. In fact, by the time a child is two years of age, the brain is already about 86% the size of an adult's brain. And what we see over the first few years of life for children who are born into poverty compared to children who are born in higher income families, is that the overall volume of the brain – the gray matter specifically – is smaller.





And so the gray matter is where all those cells are. And more specifically, you can see in this slide here: If you look at the front of the brain, the frontal cortex. This is an area that is really important for critical skills such as emotion regulation, planning, decision-making, attention inhibiting behavior (things like waiting your turn). This frontal part of brain is really critical for that. And looking at this graph, what you see is that the volume is reduced in children who are in low-income homes, and they are represented in the blue line at the bottom. And the higher income children are represented in the green line, and middle income in the red. And what we have in the horizontal axis is age in months, going from five months of age to about just after three years of age. And then volume – the size of the brain – is represented in that vertical axis. So by five months of age, there is not much of a difference in the frontal cortex, but quickly over the first few years of life, you see the rapid spread just based on the socioeconomic status of the family. I think this is just really important to point out because there have been a lot of efforts with Head Start, which is a wonderful program, but they begin maybe at four or five years of age. And they haven't had the kind of impact that was really desired. And we're thinking now we need to really start earlier in supporting families and children. Other research shows the areas in the brain that are important in regulating the stress response (as Julie was just talking about), they also show a difference in their structure and function. And so this could explain maybe some of the response that blunted cortisol responses that we see with kids that have been exposed to maybe several ACEs or traumatic events. And then when they have another stressor, the system isn't responding normally. So, in my own research, I focus on the effects of poverty on children's early brain development, and in addition, we're looking at some of the aspects of home environment that we think can be really important for supporting healthful development. So other research has shown (that's looking at this outside of context of the brain) that language interactions – the back and forth between a caregiver and a child – are really important for school readiness, for social skills. And it's that early language turn-taking that's really important. We're also investigating sleep behaviors or sleep hygiene, which we know is really important (even as adults) for the functioning of our brain. It's really important for building the brain. And so our work is looking at that as well as caregiver interactions. It's important for caregivers to be very sensitive and attuned to children. So these are proximal factors – things that are really close in the environment that we know are important. But we think there are other critical factors that are more distal that would be external aspects of the environment. So changes at both the proximal and distal level are going to be important for supporting children and families. And if we are going to change these trajectories in a more helpful way. We do know that many families are already doing so much. They are working really hard to foster young children to secure attachment to their parents and other close adults in their lives, even when they are experiencing stress. And that can be really important for helping

children to feel safe, so that they can explore their environment, so that they have the capacity to learn. And so many parents are interacting with their children in very positive ways. So just by being born into poverty or living in that context... it doesn't make somebody's development or their lifelong trajectory doomed. But these circumstances make it very difficult for parents and children to thrive. There's just so much stress that overloads the system. We don't mean to have this be a blanket statement because there are so many parents who are – all of these parents are – doing all that they can. But there are so many that are doing a really great job of interacting with their children in positive ways and being shown how to do this through home visiting programs and supporting parenting education... There is a lot of work that is going on already to provide resources and support for families.

[\(Video\).](#)

We're going to see a video where a mother is doing great job of providing some nice interaction with her child. So the kind of things we can notice in this video is that she is responding to things that he is interested in. He's just showed her something. They do a bit of back and forth with their interactions. He is paying attention to what she is doing. So they have a nice give and take here. And she is making eye contact and smiling at him. This simple interaction is a quality interaction where they are both sharing in the moment together. And these simple kinds of moments can be what really makes a difference in a kid's life. This was a family that was experiencing a lot of stress. So, you know we are certainly not wanting to put back a lot of responsibility on families. We are wanting to just highlight some of these issues. But we just wanted to also make the point that there is some very simple things that can be done that don't take extra time that are part of daily life.

So in addition to all of the things that parents are doing, there are things that society can do to be more helpful to young children who have these negative experiences to no-fault of their own. For example, we can work to decrease poverty and invest in early childhood education and support vulnerable families. And we can also work to incarcerate fewer people. And to safeguard or protect children during parental arrest. Julie gave two examples previously, with Jacob Blake and Philando Castile. I know she has been working with the Bureau of Justice Assistance and International Chiefs of police to develop protocols that can help police officers and sheriff's deputies to protect children from trauma associated with parental arrests. So let's watch this clip of a boy who is experiencing having his mother arrested and how police officers in Albany, New York are implementing a safe guarding protocols.

[\(Video\).](#)

>>**Travis:** One day I was at home and all of the sudden there was a knock on the door and two policemen just rushed in and just arrested my mom and at first they told us that they're just gonna bring her right back, so I wasn't really mad. But then when the day passed and then two days passed I was wondering like where's my mom. Then I seen the news and I seen her picture and the other person she was arrested with and the news just said first degree murder and that's all. So I just broke down.

>>**Willie Hughes, School Resource Officer:**

A child is always going to feel safest when they're at home. So if there is another parent that is available or another guardian that's available, you know we want to elicit that information from the parent being arrested and try to work with them when it comes to safeguarding their children.

>> **Sarah Short:** I find this clip really heart-wrenching. You can imagine that there would be long-term effects of being left alone for days waiting for your mom to return.

>> **Julie Poehlmann-Tynan:** It is so heart-wrenching and unfortunately when these child-safe protocols are not in place that happens all too often and my own research that I talked about was conducted in places where they do not have those protocols in place and the things that can happen are that even young children can be left alone because of the officers don't inquire if the arrested person is a parent. Children can witness pretty scary things like their parents being handcuffed and marched away, and sometimes people aren't available to care for the children and it can just be really stressful and traumatic. But I've also observed and talked to police and sheriff's deputies in New York and Ohio and California and other places that are implementing these protocols and they really help protect children. And it's really important to implement those. And in addition to those kinds of things, I also work with Sesame Street for a number of years, developing and then evaluating a number of materials for children with incarcerated parents. And the goal of the materials is to really help children not feel alone; it's to help them know that there are people they can talk to. It helps caregivers know how to explain the absence of the parent to the child in simple language, and I think that you know studies show that when children are watching Muppets talking they see them as young children. So it's almost like young children talking to them, which can be pretty powerful. And Sesame Street even created a new Muppet character named Alex. He's really cute, he has blue hair and a hoodie and is kinda cool. His dad in the show is incarcerated, and so it shows him kind of wrestling

with some of the big emotions that children can have when they experience that adverse experience. It also shows the other Muppets and adults around him providing support to him. So let's watch a little bit of that so you can see some of the magic of Sesame Street and how they do that.

[\(Video\).](#)

>> Sofia: I want you to know there are people who care about you.

>>Alex: I know, like my mom and grandparents.

>>Sofia: So do we!

[Laughs]

>> Alex: Yeah.

>>Rosita: Yes, we're your friends, tus amigos.

>> Abby Cadabby: Yeah, and we're here for you, Alex.

>> Sofia: That's right [music] [singing] You're not alone, I've been there too. Many children have. Many are like you.

>> Rosita: [singing] You're not alone. I'm by your side. My ears are here to listen. My arms are open wide.

>> Abby: [singing] You are not alone. We are here for you. We will be your friends. We'll help you through.

>>All: [singing] You're not alone. Look around and you will see.

>> Rosita: People who take care of you.

>> Sofia: Who've lived it and will share with you.

>> Abby: Who always will be there for you.

>> Rosita: Like Me

>> Sofia: And Me

>> Abby: And Me

>> All: You're not alone.

>> **Julie Poehlmann-Tynan:** Sesame Street has done such a great job addressing some big issues in society like homelessness, parental substance abuse, now even today they just came out with a new series to help young children who are experiencing the pandemic. They also have materials regarding divorce, and bullying and natural disasters. I recently conducted a randomized control trial evaluating their materials for children with incarcerated parents, and we found some really positive results that caregivers who use the materials felt way more equipped to talk with the young children about the event and also the children had better visits with their incarcerated parents. So some really positive stuff coming out of Sesame Street.

>> **Sarah Short:** Thank you Julie, and this is important work, and I am glad that we had the opportunity to hear some of this. So just to wrap up, I know these are only a few examples, but there are other ways to support children in families and while we have discussed it's very important to decrease arrests in front of children, decreasing arrests in general will also be important. And there is a role that we can play as a more compassionate and active society. So as researchers, we are striving to highlight these issues and investigate solutions that can be brought to policy makers, physicians, social workers and educators for implementation. Similarly it's not only important to reduce stressed-caused trauma for children but also promote resilience and compassion more broadly as a greater community. So now is the time in the evening where we get to move on to the question and answer portion from those of you at home who are watching, so please feel free to share any curiosities or questions you might have in the chatbox. And our friend Shaun from the Center for Healthy Minds will share your questions with us.

>> **Julie Poehlmann-Tynan:** Just to get us started Sarah, I think your work is so fascinating where you look at what's happening in the home environment and poverty and children's brain development, and I was wondering if you can just talk a little bit about how you might measure those things.

>> **Sarah Short:** Sure! The brain, it's actually fairly easy now that we have the methods to do it, but early in life, because we do this while kids are sleeping... So I look at children from birth through two years of age. It is just natural sleep, so we get structural pictures of the brain and some functional images as well and in terms of an home environment, we have a couple of different devices that fortunately we are still able to use in the context of COVID, and one is LENA and that gives us two days' worth of recording of audio environment that the child is growing up in that tells us about the language interactions between the child and the caregivers in the home. Then we also use those results to look at sleep and the quality of sleep that a child is getting. We do a lot of interviews and questionnaires and we also take biological samples. We have a lot of different biomarkers that we are looking at because this is complex. So how all of these different things come together.

>> **Julie Poelmann-Tynan:** Its really wonderful work, so thanks for telling us more about it. So I wonder if Shaun has any questions for us?

>> **Shaun Huffman [who is fielding questions]:** Hello ladies, thank you for all you do! Don't you just love Sesame Street? They are my favorite. So, our first question

tonight is what can we do now in this moment of stress in the world, such as COVID and civic unrest, to foster resilience in the kids in our lives?

>> **Julie Poehlmann-Tynan:** Well I can start with that one, and I think you know studies are now showing that during the pandemic that both children and parents are experiencing more mental health symptoms and more stress than they had before, and so that is important to note. And so one of the things that is really important is for parents to take care of themselves. To really engage in some self-care so they can be the best parents they can be and that includes being really compassionate with themselves and enjoying the small moments and engaging in some of those reflection times where they can be grateful for the things that you are experiencing that are positive. Now it's also important to remember with children, that this is relatively temporary. It's not going to be a permanent situation and many children are resilient as long as they are well cared for at home, and it is not going to harm them to be away from being away from school for a little while or to be educated in the home or to experience temporary stress. It's only when that stress becomes really extreme and prolonged where you worry more. Sarah, what else do you want to recommend?

>> **Sarah Short:** Well I was just thinking... I'm thinking I'm really glad that because, as a species, humans are very resilient naturally and some experience to adversity can actually be really beneficial in the life course. As you are saying, this is a temporary situation, and I think one nice thing back to the Sesame Street [video is] you are not alone. I mean this is a shared experience, so really trying to remember that as well and the social support. There is so much evidence to suggest the importance of social support. So not being afraid to reach out and speak up. This is a shared experience and there is so much struggle right now. And you know asking for help and leaning on each other, I think is really critical.

>> **Julie Poehlmann-Tynan:** Yeah, I think keeping connections is really important. I also just want to call people's attention to the Sesame Street materials that were just released today. If you go to Sesame Street and Communities, it's pretty cool because they show people from Sesame Street connecting with Elmo's family through Zoom or one of the Internet platforms, and they start talking about the pandemic and the stress that people go through. So it helps give people words to be able to talk to young children about this experience and then also, be able to label people's feelings about it because I think that is one of the things that we know is that it is so important to talk to young children about the feelings they are experiencing and the feelings adults are experiencing and it helps them understand and process those feelings.

>> **Sarah Short:** We mentioned that a little bit in the very beginning the importance of talking to kids, they are very aware of what is happening even at a young age. They may not have words for it or know exactly what's going on, but they know something is not right and they don't feel like themselves and to be able to give them a safe space to talk about that and the words to express it and then some support to know it is going to be okay.

>> **Shaun Huffman:** Hello again, ladies. Thank you so much for that. We have a really great question from Deidra actually, "What advice do you have regarding what teachers in school districts can do to support children who have experienced trauma especially in distance learning environments?"

>> **Julie Poehlmann-Tynan:** I have seen some teachers do some really creative stuff that could be done in a distance environment as well. For example, there are some kindergarten teachers who just show the series of Sesame Street materials to their class and then open it up for discussion. And sometimes kids self-disclose something that the teachers didn't even know about because they're talking about it and kind of giving people words – giving the kids words – for their experiences. There is also some great materials on the NIH website about trauma and how kids of all different ages can cope with it. So I think those are some great examples. Some of my research is also focused on using mindfulness activities with children. And that can really help kids self-regulate and that could be coping with trauma and that can be done at a distance or in person. Sarah, do you have anything to add to that?

>> **Sarah Short:** No I think that's great. I feel that teachers are doing so much right now, so that additional responsibility is a lot to take on, and I know they want to do everything they can to support their kids. There are trainings out there, I wish that I could say specifically what, but I do know there is more and more awareness of ACEs and that trainings are being offered for educators specifically because you are in the thick of it with the kids oftentimes or can be, you know, one of the first lines of defense for these kids. I think it's a great question, but I don't have more specific suggestions beyond what you mentioned.

>> **Julie Poehlmann-Tynan:** There is also a trauma-informed approach... that really one of the keys to them is thinking about children's behavior as communication and that is a really important step because sometimes if kids act up or misbehave, sometimes it is disruptive, and so the idea is that you want to shut that down, but if one sees those behaviors of communication as a children's feeling in ways that may not be appropriate but is certainly communication of their feelings. I think that is an important step as well.

>>**Shaun Huffman:** Thank you. So speaking of training the mind... Can meditation and mindfulness change some of those neural deficits for children that have these experiences?

>> **Sarah Short:** The brain is very plastic, so we do know that meditation practices in adults and adolescents can impact the way that the brain is functioning and the younger that you are, the more malleable the brain is, so I would say that there is a good likelihood that that's the case. We know that it is important to try to begin practicing these things at an earlier age, but I don't know of any research that has actually been done in looking at children's brains specifically in this context.

>> **Julie Poehlmann-Tynan:** Most of the work that's been done with children has focused on their behavior or even their physiology. For example, but it was interesting in one study I did, we did meditation for an intervention of parents of young children. And we found that even the children of the parents showed a decrease in physiological stress by the end of the intervention, but we did not look directly at their brains so that's probably about the closest. And that is not a study where it is a direct intervention with the children.

>> **Sarah Short:** So I think there is indirect evidence to suggest a case for that, but that hasn't actually been looked at, but what regulates a stress response is partially your brain.

>> **Shaun Huffman:** Thank you ladies. Our next question comes from Faith, and it says, "Is there any evidence that trauma involved with removal of a parent due to arrest is different than that of a parent exiting the family in divorce without contact?"

>> **Julie Poehlmann-Tynan:** There are a couple of studies that compare how children are doing based on various forms of separation from a parent and found that arrest and incarceration has a stronger impact in part because it is so stigmatized and often there is secrecy in the family and because there is often increase in poverty and mental health issues in the parent remaining home. So it can create a lot of instability, but with that said, any form of separating a parent from a child can be stressful for young children. There is an emerging body of literature looking at children whose parents are on active duty in the military, and so they are separated or experiencing immigration detention, or prolonged hospitalization and all of those forms are stressful, it's just that the more stigmatized the reason for separation and the more other risks that are present in the context like poverty and mental health issues et cetera, the more struggles that children have with that.



>> **Shaun Huffman:** Thank you. Our last question of the night comes from Sarah: “How can I help my clients and their families cope with first-time homelessness during COVID, as winter approaches? What can I do to help?”

>> **Julie Poehlmann-Tynan:** The first thing is to try to find resources so they have shelter, and because young children and families are the fastest growing group experiencing homelessness, there are more and more resources available to find temporary and permanent shelter for families especially during winter if you live in the northern climates. There is also some materials that are available online that are directly for children experiencing homelessness. So for example, there is a new character on Sesame Street who is a little girl who experiences homelessness and there are materials for that in Sesame Street in Communities. And there is also some information on the CDC's website that focuses on supporting children during homelessness. I think that one of the most important things is to keep the kids safe, keep as much continuity and routines in their life as much as possible despite the homelessness and continue their education to the best of people's ability and of course, Sarah you can comment on this too, make sure the parents are taken care of.

>> **Sarah Short:** Yeah, I agree. You said that really well, Julie.

>> **Richard J. Davidson:** Thank you guys so much. This was really fantastic. That was just wonderful. And one of the things I want to just point out is how remarkable some of the interventions that you are working with are in terms of really being out-of-the-box like Sesame Street. And the idea that interventions to cultivate well-being necessarily involve sitting meditation I think is really incomplete. And there are so many other ways of helping families, and some of them are really out of the box. And so, it is wonderful to see that and it is so cool that you are able to do randomized control trials to evaluate the impact. And those of you in the audience who don't know what a randomized control trial is. It is the gold standard of clinical research to determine what the active ingredients are in an intervention and to be confident that, in this case, Sesame Street is actually producing the beneficial change.

So, thank you both so much, and I want to now remind those of who you are joining us that this will continue the next few nights, Wednesday, Thursday and Friday. Tomorrow we will be featuring work from our affiliated nonprofit Healthy Minds Innovations, and we will be talking about well-being at work. This is really an example of direct translation from inside from the laboratory and bringing them out

into the wild in real-world context in workplace settings. You will meet some of the key people in Healthy Minds Innovations who are doing this work, and will share some of the exciting new opportunities and findings that we have.

So please join us at 7 p.m. tomorrow. We also would like you to check out our websites to learn more about our work. They are displayed here, (SLIDES) you will find much more information on these websites and please become a part of our community and each of you in your own niche can contribute to the improvement of well-being in the world. And we very much encourage you to join us on this journey, which particularly at this time in our history, is now more urgent than it ever has been before in human history. So we really appreciate engagement this evening and we also want to remind you that the work we do is possible because of the generosity of foundations and donors who support this work. And so, if you feel so inclined and inspired please contribute and this website on the screen provides information and instructions about how you might do that and anything that you might give is deeply, deeply appreciated.

>>**Richard J. Davidson:** So I would like to end this evening with a little practice to ground us and to give you a taste for what a simple mental exercise can actually do to facilitate our actual well-being. These days we have been looking at screens a lot, so please feel free to close your eyes but if you are more comfortable to keep your eyes open that is fine too. Let's begin by bringing our awareness into the present moment into our bodies. Simply noticing whatever is occurring. Each of us, every human being is endowed with this great gift of awareness. Yet we spend precious little time nourishing and celebrating its awesome potential. As we begin this short period of practice, see if you can lean into an altruistic motivation. Why did you show up this evening? Why might you be interested in these sorts of practices? And let's see if we can recognize that calming our mind and opening our heart is beneficial not only for ourselves, but for all the others that we touch directly or indirectly. As Sarah and Julie mentioned, when parents or caregivers or adults or teachers cultivate well-being in themselves, there are ripple effects on all of the others they connect with. So, let's spend a moment allowing this motivation into our lives. Every person on this meeting this evening at one point in time was a child, and all of us have children in one way or another in our lives. Some of us may be parents. Some of us may be grandparents. Some of us maybe relatives. Godparents. Some of us may be teachers. Caregivers. Let's spend a few moments envisioning what kind of world we wish for these children to inhabit. What are the causes and conditions that might maximize every child's capacity to flourish? Clearly, there are many factors that are way beyond our control. But there are some things that we can do to nurture these positive qualities in our children. To nurture their curiosity, to nurture their kindness, their empathy and to

nurture their love. We are living today in a world where we receive so many messages of fear. Let's see if we can reconnect with this basic human bond that we experience with our children and with others. It really has love as its underlying disposition, and we are born with the capacity to love. So, as we close this really short period of practice, let's each reflect on how we can actually practically make a commitment to do what we can in our own specific context, to bring more love into the world and particularly, with our children. For it is in their hands that the future of the planet and the future of humanity really resides.

So, thank you all for joining us this evening. I very much want to especially thank Sarah Short and Julie Poehlmann-Tynan that are doing such important work. And I am happy that so many of you from around the world got a little taste of the amazingly cool stuff that they are doing and please check out our website, their websites to learn more about it and please join us for the next several days to learn more about other aspects of the work in our center and in our nonprofit. So thank you all! I wish you all a good evening or day wherever you might be and we will see you tomorrow.