

The Biology of Stress and How to Cope with it in your Family

KAITLIN HENNESSY: Hello, everyone, and welcome to The Biology of Stress and How to Cope with It in Your Family. My name is Kaitlin Hennessy, and I am the Program Coordinator at Global Connections. And here at Global Connections, our goal is to provide engaging extra curricular and co-curricular activities for online students, no matter where they are as long as they have an Internet connection.

And tonight joining us is Dr. Sarah Waters. She is a professor in Human Development at WSU Vancouver. And before we get started this evening, as many of you are already doing, please do use that chat box to discuss tonight's presentation and also submit questions for the presenter. You can put questions in the chat at any point, and we will break for questions periodically throughout the evening.

At times, you will see polling, or you may be asked questions from the presenter. Please use the chat box to respond to those questions. And also, if you have any technical difficulties, please let myself or Kristin, who is also a moderator this evening, know in the chat. Thanks so much for coming this evening, and I'm going to turn it over to Dr. Waters.

DR. SARA F. WATERS: Well, first I want to say thank you to Kaitlin for inviting me to do this webinar tonight and then to all of you out in the audience wherever you are for joining us this evening. So as Kaitlin said, we're going to talk about stress biology, specifically in terms of how it affects or plays out in the family and then some tips or some things to think about in terms of how you can cope with stress in yourself and in your family better.

So I'm going to begin with just an overview or an outline of what we're going to talk about over the next hour or so. I'll start by saying a little bit about me-- where I come from in terms of my training and my-- what drew-- drew me to this field, continues to draw me and to this field, and what I find so interesting about trying to understand stress in the family. And then I want to talk a little bit about good and bad stress and the biology of it. Stress has-- it's a bad word, and it has a very bad rap. And one of the things I'd like you guys to take away from this evening is an understanding that stress is neither good nor bad. It's really all about the context that can make it have positive or negative effects on us and our bodies.

Then I want to share a little bit of research about how stress can be contagious, specifically between parents and children. And then we'll finish by talking about, like I said, how do you cope with it or what do you do about stress in yourself and your children. And with-- I'm planning to leave especially a chunk of time at the end to engage with you guys in the audience with questions and things like that. But please do, as Kaitlin already said, pipe in through chat with any issues or questions that you have along the way as well, and I'll try to address those.

So like I said, a little bit about me. My name is Sarah Waters. I'm an assistant professor in the Human Development Department on the WSU Vancouver campus. I teach classes related to what we're talking about tonight, parent-child relationships and research, research methods. I also do a lot of research out of the Vancouver area and including working with a lot of undergraduate and graduate students on the Vancouver campus. So that's really getting to connect with students in-- not just in the classroom but out of the classroom and the laboratory setting as well.

So we do bring families to campus. And we have a laboratory there. We measure the biology of stress in adults and children as they do various kinds of activities. And by the end of the webinar this evening, you'll have a much better sense of the kinds of things that we do in that space.

I-- no, my bachelor's degree was in psychology. But I really fell in love with development and decided to go on and get a PhD in human development when I was working as an early childcare provider or as a preschool teacher. And it was there that I just became completely captivated by what was going on in the minds of these tiny people and how sophisticated sometimes it seemed like they were really processing things about their world in ways we maybe weren't giving them credit for or at least I hadn't been giving them credit for at that point, especially things around emotion and stress. So if you guys work in early childcare, you have children who are in early child care, you'll know that many of the children in this country spend many hours in childcare every day. When I was working in one early childcare setting, we had kids as young as two being dropped off at 7:30 in the morning and not getting picked up until 6:00 at night. That's the time that their parents were working.

And it was stressful for me to put a long day in in a room full of kids and a few other adults, and it really got me starting to think about how stressful it was for some of these young children to be in this environment. And yet a lot of them seemed to be doing really well. So how-- what was that stress actually like for them, and how were they coping with it? And that was where the questions began for me that actually led me back to graduate school and then on to a postdoc and now in this faculty position.

While I was in grad school, I came across this quote, and it really shaped the way that I think about development and the things that I-- are interested and the things that I'm sharing with you today. So this is not a recent quote. This is from one of the leaders in the very early days of the child psychology field back in 1947 where Winnicott says, "There's no such thing as a baby. There's a baby and someone."

And so what he's really trying to convey there is just how essential to the child's early development the parent child or the caregiver-- the primary caregiver-- it doesn't have to be a parent, doesn't have to be mom. But the adult who is in that child's life, who's picking up the baby when they cry, who's feeling that baby when they're hungry, changing them when they're wet, keeping them warm in the night, all of those kinds of things, how essential that relationship and that context is for the baby's development-- that we really can't understand

anything about a human baby if we strip them from that relationship. That is the context for everything that goes on.

And so in thinking about things like stress or emotions and stress and coping, emotions, and emotion regulation, when we think about how that occurs really early in life, it's really critical to recognize that when we're born as very young babies, we don't have a lot of coping skills. And there's a lot that can be stressful. We don't have a whole lot of power over our lives. Things are just happening to us. And we don't have a lot of ability to do much about it. We're pretty unequipped to be in the world when we're very, very young.

And so we are depending on that adult, that primary caregiver, to be our regulators, to be our coping system, our coping mechanisms living outside of us and teaching us as we build those coping abilities and those regulatory abilities inside of our bodies. It's this process from the external regulator-- the external coping machine-- which is the caregiver to the internalized system that we then continue to develop and refine and get better and better at it as we get older and older.

And so that's just one example of how if we aren't thinking in terms of the parent-child relationship, we're really missing the picture in terms of how do these things get formed, how do they get developed? And of course, we want to understand how it happens in the best situations when everything goes really well because that's going to teach us what we need to do to help kids and families where it's not going that well, where things are not in their optimal best situation.

So now I already mentioned that stress gets a bad rap. It's really a bad word I think in culture today like, oh, I'm so stressed out. I have so much stress. And there's a lot of truth to those kinds of sayings and that kind of thinking, but it's not the whole story.

So I want to stop as I see have something like 30-something people now. I want to stop and take a moment to ask you guys to give me a sense of if you're a parent, so yes no, and then how old your children are-- your child or children are if you have more than one. So I'd love to get a sense as we start talking about stress in the family how many parents or families we have out there.

So I saw a lot of you guys coming in the chat answering. We have one puppy mom, not a human-- not a mom of a human baby but of a puppy baby. I can relate to that. So it looks like there's quite a few parents, and really I saw a lot of huge age range from young adult or at least adolescent down to preschool age. And then a few puppies and kitties mixed in there as well.

So that's really great that we have such a huge range, and so I hope we'll be able to talk about or answer questions and discuss how the kinds of things that I'm going to share with you guys tonight-- how they might relate or function best in families of kids with different ages. And really there are some of these messages that I think are universally true, but how we tailor them or adopt them really depends on the developmental stage that your child is in and what

their abilities are to talk about things to even be aware of their feelings, to manage or regulate their feelings. Parents know that the expectations that you have with your-- for your child really has to depend on the developmental level or stage that they're in.

A lot of the way that I think about this has to do with what goes on really early in life. And so I spent a lot of time studying babies, not just because they are adorable but also because this is where the beginning of the path gets shaped. And so if we want to understand how things happen, we look to the beginning. Also it's when things are most malleable or when they're most flexible, when it's easiest to make changes is when we make changes right from the beginning. It's still entirely possible to make changes in a relationship at any stage. I think. But it gets somewhat harder as those of you who were responding with kids in their teens or even early adulthood probably know it gets harder to change relationship dynamics the more time, the more years you have working within a certain kind of relationship or a certain kind of relationship patterns.

So now I want to talk a little bit about the stress response. And as I was setting up already, the stress response in the body is really important. It's not-- it serves a really essential and useful kind of function in the body. And so by this I'm talking about the way that social events, social stressors-- the things that we perceive and experience out in our social world-- come through our minds, through our brains, get processed and then influence the functions with our bodies. So many of you have probably heard of the hormone cortisol.

And so it's widely considered the stress hormone. We can measure it in saliva. We can measure it in blood. When we experience a stressful event in the world-- so when we get cut off on the freeway by somebody driving carelessly, when we get into a conflict with a coworker, when we have a child throwing a temper tantrum in the middle of the grocery store-- these kinds of stressful events in our social world then impact our bodies through the ways that we process those experiences. So our minds activate the stress response throughout our body. And so cortisol is one of the messengers from the brain that then works with the systems all throughout the body to say, hey, something is happening here. We need to really activate to be able to generate that fight or flight response.

And so that's what I mean by it's really important and adaptive. It's your stress response that enables you to rise to the challenge of something to be able to pass a difficult exam or walk into a job interview. It's very stressful but just totally nail it and get the job. It's that-- it's the cortisol running through your body. It's the fight or flight response in your body that's actually adaptively or in a healthy supportive functional way serving your goals.

When stress becomes bad is when it is happening all of the time or a lot of time. So those kinds of things that I just described-- you get cut off on the freeway, you have a conflict with a coworker, your child has a meltdown in the grocery store-- hopefully, those things are not happening day in and day out all of the time. In those kinds of situations, somebody cuts you off on the freeway, you want your body to react with this quick stress response that enables you to swerve out of the way and honk your horn and avoid an accident.

But when we start to experience stress that happens relentlessly-- when we are worried all of the time about being able to pay our bills or where-- how are we going to afford to pay rent this month or is there going to be enough money at the end of the month to buy our groceries, when we're worried about a child or a family member, a parent or whoever with an illness or a disease-- and we're-- it's always running in the back of our mind of what's going to happen and how are we going to cope with this and are things going to get worse-- that's the kind of chronic or just day in and day out, there's no relief from it, that's when stress becomes a problem.

So when we have an acute stress response-- acute meaning just very short lived, quick-- it happens, you react to it, and then you go back to your normal resting state, you're back driving on the freeway like nothing happened, your breathing goes back to normal, and it's all good-- then that's an acute stress response. And that's great. A chronic stress response is when we're-- or it's just running in the back of our minds all the time. And when we're thinking about we're going to meet-- what if we get evicted because we can't pay rent or what if my aging parent goes and falls and breaks their hip and I have to stop working so that I can go take care of them or-- and thinking and worrying about these kind of big things that could be happening-- our bodies are having that same kind of stress response that we had to the person cutting us off on the freeway. But it doesn't stop.

We don't then say, oh, yes, OK we got out-- we moved into the next lane, whatever. It's fine. And a few minutes later we're breathing naturally again. Our minds are constantly feeding that message of danger, threat, being worried about this to our bodies over and over and over again. And when that's the experience of stress-- is that it's chronic and it's just going on and on-- then that's when this the bodily responses to stress really start to wear us down and lead to disease risk. And there's more and more evidence coming out showing that this chronic stress, particularly actually when it happens early in life.

So I was saying before that the child, and especially the very young child, really depends on the adults in their lives to be their coping mechanisms, to be their external regulators of their world and their emotions. So when that system breaks down because caregivers are not available-- maybe they are suffering from their own mental illness and they're not really available to be there for their child or maybe they are suffering from an addiction or some other really negative event in their own lives that's really taking up all of their resources and they're not able to be there for their child-- that kind of stress we actually call toxic stress. It's so overwhelming to the child that it's-- we think of it as being toxic.

And more and more research that's coming out showing that the effects of toxic stress early in life, we can see those effects play out decades down the line in terms of risk for mental health issues, depression, anxiety but also things like cancer, cardiovascular disease, diabetes, these kinds of things. So when it is relentless, when it is constant, when we can't give our bodies a break and reset back to that neutral state, that's when stress becomes really a problem. That's when stress becomes bad.

If you guys are interested in this phenomenon of stress-- good and bad stress biology-- I totally recommend this book I have up on the slide Why Zebras Don't Get Ulcers by Robert Sapolsky. He's a researcher at Stanford University who's just done a huge amount of really excellent work looking at stress and different kinds of stress responses and what they do to us. And that idea why zebras don't get ulcers is because zebras have acute stress responses all the time. They're about to get eaten by a lion, and they have that fight or flight response. And they bolt away, and they survive.

And then they just go back to grazing and eating grass or whatever it is zebras eat. And they're never ruminating or dwelling on or just running through their minds constantly, oh, is there going to be another lion attacking soon. Oh, what am I going to do? Am I going to be able to run away from this lion the way I did the last lion and so on. And that's why zebras don't get ulcers. They don't have that chronic stress response

So I'm going to talk now about a couple of studies that I've done, like I said, looking at how stress can be contagious in the family.

And before I get started on that, I'd like to get a sense of what are the most stressful things that you or your family faces in the day-to-day life. So what are your kinds of stressors. I'll give you guys a few seconds to respond in the chat with to that.

It looks like a number of you are your biggest stressors for you or for your family are things like bills and finances. And we know that as soon as you have your bills paid for one month or you think you have everything paid, there's more bills just always coming. It seems like there's always something else, some other bill to be paid or there's the next month to worry about. A lot of you guys are writing in about time management and juggling the complexities of either being a single parent or being in a blended family or being in a military family where you have deployments and distance and family members coming in and out of day-to-day life.

And those are, again, the kinds of stressors that are not easily fixed, and then we can just go on with our lives. These are constant things that we have to be navigating and negotiating. So these are the kinds of things that we really want to figure out how to deal with it in ways that enable us to be more like a zebra if we possibly can than dwelling on and constantly running through our-- in our minds, constantly keeping fresh in our minds and in our bodies these difficult situations that we can't just immediately resolve or fix.

Now, one of the things that I think any of us who are parents or some of us who are parents may have experienced at some point is the sense that when we're having a bad day, it's like our kids somehow know and pick it up, and that they just are also having a bad day when we are. So it just can pile the stressors or the difficulties when it just seems like our kids know when we're having a hard one. And they're just going to sort of pile on and make it worse.

Some of us have had that experience and yet trying to understand what is it that is going on there. Is just really in our minds, or is that really something that could be going on that our child

maybe even our baby, who can't really talk yet, knows when something's up with us. And so that was really the question behind this first study. So we will see whether it was really true that a parent could transmit stress from their own bodies to their child, and in this case they were babies about 12 months old. And so we-- in our laboratory, we had-- asked moms to do one of three different tasks.

So in the first task, which is the red bar, this positive bar-- positive task, we had to do something that was stressful. So we had them give a speech. But the people that they were giving the speech in front of-- because everybody hates public speaking, so almost everybody finds that to be stressful-- but when you give a speech in front of people who are really positive and really receptive to what you're saying and there's lots of smiling and nodding and enthusiasm for what you're saying, it's stressful, but you really you feel like you have been successful, like you have the skills that it takes to do this well. And so it's what we would call a positive stress response.

Other mothers completed that same-- that same speech task, but for them, the people in the audience were not so positive. There were no smiles. There were no nodding their heads. There was confused stares. And the takeaway feeling for the women who did this task was that they had not done well at this difficult thing, giving a speech. So that's that negative stress. And then the third group of women-- of mothers just had a control condition where there was no stress at all.

So in the first-- the top figure there that lines up with the stressed out woman, you can see the mom stress response, and this is in her body. So this is her fight or flight stress response in her body. And what we see that moms who had no stress had no stress response in their bodies when they were not-- moms who didn't have to give a speech in front of people had no stress.

Moms who gave a speech in front of people who were really positive had stress but not nearly as much as the moms who gave a speech in front of people who were not positive while they were doing it. So that everybody's worst nightmare is giving a public-- or at many of our worst nightmares is giving a speech, doing a public speaking thing, and having people not be very supportive or are nice to you while you do it. So it really is-- really does put us in a fight or flight stress space.

Now remember this is an acute stress response. So these were women who came into the lab. The whole entire visit was maybe like an hour long. They spoke for five minutes. This was a very quick stressor that then resolved itself pretty quickly as well.

Then after they had given the speech, we brought their babies-- their 12-month-old babies-- into the lab with them and handed them their babies and let the two of them just play naturally and just interact. And what we saw was that within about a minute or two of the baby playing with the mom, we see the same fight or flight stress response in the babies that we did in the moms. So you see on that bottom figure the red, orange, and yellow bars pretty much just mirror each other.

The babies whose moms were-- had positive stress or a little bit stressed out themselves but not nearly as much as the babies whose moms had negative stress. These babies weren't even nearby when moms were going through that stressful speech task. They were down the hall in a big baby playroom, playing with toys and eating puffs with somebody that they really liked, and they were in great spirits. But within a minute or two of coming into that space and being held by mom after she had gone through this difficult thing, their biology changes to match mom's. So that's where we-- that's what we're seeing in terms of children catching their parents' stress.

Now, these are 12-month-olds. A lot of you guys have kids who are more like grade school age, and we were also really interested in what going-- do we-- is this just a phenomenon that we see when kids are really, really young, or would we see something like this even in older children? Now in older kids, they're not being held by mom anymore. So when we look at this that older kids, moms got the same kind of stress task that they had to do, give a speech in front of people who are not nice, that negative stress. And then their child comes into the room, their 7- to 10-year-old child, and they have a conversation.

And here we thought by the time kids are 7 to 10 years old, there's a long relationship history already between parent and child. Children are pretty tuned in to how their parents tend to react and things like that. And so what we wondered for this-- in this instance was what if the parent tried to hide how they were feeling, suppress their negative feelings, hide their negative stress feelings from their child. Would that prevent the child from catching the stress, or would that actually make it more likely to happen?

So here's what it looked like. We have that stressed out mom again, and then after she's gone through the stress test, we tell her try not to show any emotions so your child will not know what you're feeling. Then the child comes into the room. The parents talk. And as you can see here in this figure, the parents and children had much more stress contagion. So the children caught the parents' stress, meaning that the same fight or flight response that we saw on the mom then was caught by and started to appear in the child. And that same fight or flight response appeared in the child for the parent-child dyads or parent-child pairs where mother had been trying to suppress her emotion.

So the orange bar that barely appears there because there was just no contagion happening in that group at all, that control condition was where mothers were allowed to just interact with their child naturally as they would. So for some moms that meant talking about I just had to do this task, and it was so stressful. And for other moms, it wasn't, but they were trying to hide their stress from their kid.

And so here we see this is really going against what we tend to think of in terms of not in front of the kids idea, like don't show when you're having a bad day. Just try to put on a happy face and don't show-- don't let people really see how you're feeling, that you're feeling really bad. Just shut it down, especially for your kids so that they don't see how stressed out or difficult things can be.

And I think the message here is not to vent it all-- all of your stress out on your child certainly but that your kids know when you're being authentic. Your kids know when you're hiding something or when you're not OK. And they might go along with oh, I'm fine. They might go along with that. But I think what we're really seeing is that even their bodies, even their stress biology, that fight or flight response, is picking up on the fact that something is off here.

And even if moms aren't showing any evidence that they've been upset or stressed, they're conveying that through their stress biology to their children. When they're free to really just talk about it and say whatever it is that they need to say, we don't see that contagion. So I think what we really want to take away from this is this idea that whether they're babies or whether they're older kids, kids are much more sensitive to what adults are feeling-- and feeling in our minds, like if we're happy, sad, angry stressed, whatever-- but also feeling in our bodies, what our bodies are experiencing. If our bodies are stressed out, kids are much more sensitive to that in terms of their own mind and their own bodies than we sometimes give them credit for.

And so we really do need to recognize and engage like, OK, yes, I had a really bad day today. But-- and I'm feeling off, and let's take a few minutes to breathe together and find something to turn our moods around and put us in a better mood and enable us to feel better and less stressed rather than just glossing over things or just tamping it down, bottling it up, not admitting that we're not feeling good. These things don't help us. And they don't help our kids very much either.

So I want to take a few seconds to see if anybody out there has questions about the two research studies, either one in terms of sort of making sure that you understand what we did or what the results were or anything like that.

KAITLIN HENNESSY: Hello, Dr. Waters. One question is in the stress contagion study, are the results the same when mothers are replaced with fathers? So do fathers have the same effect on children?

DR. SARA F. WATERS: Yes, that's such a great question. So in the first one where we had babies, we didn't have any dads who could come in with their one-year-old babies. We only had moms. But in the second study where the kids were 7 to 10 years old, we did have-- some kids came in with their moms, and other kids came in with their dads because we were wondering that. We so often do research with moms and kids, but we know that dads are super important, too. But are they important in the same ways, or do they interact with kids in the same ways.

And so what we found in this study was actually I think really interesting because we got the-- we did not get a stress contagion effect for dads. So even when dads were suppressing their stress or their negative emotion, kids were not catching that. They were not having a fight or flight response in their own bodies. But as dads and kids interacted with each other-- because they did a bunch of different things, different play episodes, different tasks, different games together in the lab-- as they interacted, what we actually saw was that kids began to affect dads' biology.

So kids who were more stressed influenced their dads to become more stressed, and kids who are more calm influenced their dads to become more calm. And so over time, you see the kids actually pushing the dads in terms of their biology, whereas we saw just the opposite with moms. Moms really push the children's biology. So stressed moms made stressed kids, and calm moms made calm kids.

But we didn't-- dads didn't have that effect on kids. And so then we looked a little bit deeper, we saw that actually dads seemed to be more driven by or more influenced by kids than the moms were. So I think that's interesting. And most importantly, it just reminds us that there's a lot going on with dads, too, and we can't just assume that moms and dads are functioning just exactly the same way in terms of how they relate to and influence children.

KAITLIN HENNESSY: And we did have another question related to the study. It was how are you able to test the flight or-- fight or flight response in the babies?

DR. SARA F. WATERS: So we used equipment that measures things like-- so we use electrocardiography. So if anybody's ever gone to a cardiologist and had those sensors-- those sticky sensors put on their chest and torso, we have those. We have ones for parents, and then we have little versions for babies. And then we have some more complex sensors that we put on moms or dads or older kids as well. We kept-- tried to keep things as simple as possible for these 12-month-olds, or sometimes we test kids who are even younger than that.

But we have-- I have some really amazing research assistants that I call my baby whisperers because they are able to just get in there and make friends with the baby and get those sensors put on the baby's torso in ways that they don't even really notice what's going on. We have lots of fun toys to distract them with. And so in that way we're measuring their electrocardiographies. We're measuring their heart rate and their heart rate variability, a couple of different indicators, their autonomic nervous system and sympathetic nervous system, which is specifically that fight or flight response.

KAITLIN HENNESSY: So thank you. That's all the questions we have related to the study for right now.

DR. SARA F. WATERS: OK, great. So now like I said, I want to talk a little bit about what do we do. What do we do about family stress? And so the first thing is that you really want-- the first thing I want to talk about is nurturing your own emotional well-being. And by this I mean the parents' emotional well-being.

As we were just looking at in terms of these research studies, it really does matter for kids what's going on with their parents. We know that in-- we know that, of course, but we know that now in terms of not just behavior and conversations but also in terms of stress biology of what's going on inside the body. So what I would say is how do you nurture your own emotional well-being? What does that mean exactly?

So a couple of things. Learn about your emotions and where they come from. The thing is that we often don't have as good an understanding of what we're feeling or why we're feeling that way as we might think we do. So I will be the first to admit that there are days when I come home. And the dogs have made a mess in the living room. And my daughter is sitting in front of the TV even though she's not supposed to be doing that on a weeknight. And my partner has not started dinner. And there's lots of these little things that are not going quite right with my evening.

But instead of coming in and loving the fact that I have beautiful dogs and a beautiful daughter and a wonderful partner and a houseful of love, I am super annoyed, and I am yelling at everybody and-- go do this! Go do your homework! Rah, rah, rah and bringing a lot of stress into this environment. Now, if I actually stop for a second and pay attention to how I'm feeling and figure out where is that feeling really coming from, oftentimes it's not really the fact that the dogs have made a mess on the floor because that's just what dogs do or that my daughter hasn't finished her homework because she's waiting for me to get home so that I can sit down do it with her.

Really where-- what's driving that emotional response is something that happened to me earlier in the day or something that I've been thinking about. This chronic stress we've been talking about, something I've been dwelling on and running over and over in my head about some conflict that I had at work or some unresolved issue that I have. And so this anger, frustration or stress that comes out in the moment with the people that I love isn't really about the moment, isn't really about the people that I love. It's really about these other things that have been going on.

So really coming to appreciate that what are you feeling and why are you feeling it, where does it really come from is going to help cut through a lot of the kinds of things that easily make things fall apart in a busy family. Understanding how you process and cope with stress. So that's really pretty closely tied to the first point that we need to appreciate what happens to us as the adults and the caregivers in the family when we're feeling pushed to our limits and what we can do about it. And what do we do about it? And are those the things that are really going to serve us best? I know that many of us find ourselves over-committed.

We say yes to many more things than we really have time for in the day. And then it's really frustrating when that ends up contributing to stress. And we're running around like crazy people. We're yelling at the kids to get ready and to go here and go there because we're so over-committed. There's an opportunity to change that. There's an opportunity to say, not to everything. There are lots of things that we have to do or required to do. But there are also a lot of opportunities to make a conscious choice that says, yes, that would be a nice thing to do, and it's more important for my family to have a relaxing evening in home without any commitments than it is to do this thing.

The last thing is to remember that your well-being is your family's well-being and that these are really-- going all the way back to that first slide about there's no such thing as a baby. There's a

baby and someone. These are one and the same. And I say that not to put in additional stress or burden or guilt on parents' shoulders like, oh, great now I'm responsible for everybody's well-being but to lift up the care that you need to give to yourself as an adult in the family as it is part of caring for your family to care for yourself.

It is the same thing. We tend to put turn against each other like, well, I can either go take 10 minutes to be by myself in my room in quiet and let the TV babysit the kids for 10 minutes. But I should go do this other thing. And so we put them in opposition where we have to choose between ourselves and somebody else in the family or what we need to do for the family.

And what I'm trying to say is that is a false competition. Taking care of yourself is taking care of your family. Now, of course, I don't mean blowing off your parental obligations to go to the spa all day, but those kinds of moments to get in touch with yourself, take a deep breath, look around, and recognize the really positive things that are in your life and let go of some of the things that are nagging on your mind, just step away from them for a little while, that is part of how you support your family's well-being. When you are present, when you are calm, when you are checked in with your child and with your whole family system, everybody is going to pick up on that.

Now, this is something that you want to think about more or explore more, get some more perspectives on, I would definitely recommend this book, Parenting from the Inside Out. I don't know how clear the authors are, but the first author is Daniel Siegel. The last name S-I-E-G-E-L.

I would actually really recommend-- pop his name, Dan Siegel, into Google, and you'll get his website where you can pay for courses that he teaches. And you can buy his books and things like that. But also you will see YouTube videos pop up of talks and lectures that he's given in various places over the years. And he's a really great speaker. And he talks all about how parents can foster healthy development.

Particularly, he talks a lot about the brain and brain development but also in terms of understanding how our own experiences, even all the way back to our own childhood experiences, actually influence the way that the parent and what that means for us now as parents and what that means for our children through the next generation. So I strongly recommend checking out Dan Siegel, reading this book or any of his other books, or also just spending a few minutes with the you-- with his YouTube talks like playing in the background as you drive to work or whatever. I think he's really clear and articulate. And his work is really well based in the science and the research around these things. So I definitely recommend him.

The other thing that of course we want to do about-- to deal with stress in the family is to nurture your child's emotional well-being. And how do we do that? The best way that we can do that or the first line of how we can do that is to make it safe for kids to talk about their emotions. So I want to imagine-- I'll use myself as an example.

I'm feeling really worked up and stressed because I'm worried that my fourth grader isn't doing as well in school as I think she could or I would like her to. And I turn to my partner or my friends or my family member, whoever it is they talk to about the things that are really keeping you up at night causing chronic stress, and I say, I'm really worried that Sally is not thriving in her fourth grade classroom, and I don't know what to do.

And my partner might say, oh, don't worry about it. I'm sure she's fine. She just needs to adjust. Or, yes, but remember you worried about her third grade, then she turned out to be fine. So everything worked out in the end. So don't worry about it.

And my partner can have really good intentions in reassuring me that everything is OK but doesn't necessarily feel that good to me. If you compare that to my partner puts down the smartphone or the dishes or turns off the TV, turns, looks at me, and says, I know how much you love Sally. I know how much you want her to be happy and successful in school. And I can see how much it breaks your heart to think that maybe she's not doing-- she's not doing as well or maybe she doesn't have friends or maybe she doesn't get along with the teacher the way that you would want to period.

Not but blah, blah, blah. Not and let me fix it for you. Not any of those things just period. And you just let the person's feelings be that this is a hard a scary thing. And there isn't necessarily an easy resolution to it. Now, we can do-- if you're like me that second scenario feels a lot better in terms of seeing me and validating my feelings and making me feel like I'm not alone in this scary stressful thing that's happening than the first scenario does.

So we can create that for our children as well. So when I say make it safe to talk about emotions, I don't mean tell your child you can talk to me about anything. That's fine to say. But it needs to be more than that. It needs to be paying attention so that you pick up on the sometimes subtle cues that kids give us that they are needing to get something off their minds.

When we're talking about really little kids they let you know. There tends to be a lot of crying when they're stressed about something. But as kids get older, as they move into adolescence, they're not always going to be completely forthcoming. And so it's paying close attention and really, really recognizing when your child is upset about something or when something's on their mind and making it safe to talk about by just creating that space and then following the child's lead.

So letting the child say what they need to say and sometimes that means sitting in silence for a little while. Sometimes that means just a hug. You're not forcing the child to talk about anything that is scary or stressful or upsetting or whatever was on their mind. That isn't that they're not ready to talk about. You follow the child's lead. You don't correct them.

You don't say, oh no, that's not really how you feel. Oh, that's not really something to worry about. There's no such thing as whatever. That's invalidating their feelings. But to actually say,

you are-- it is really scary to be alone in the dark in the room when you go to bed. And you really wish that you could be snuggled up with mom where you feel safer.

Period. And then you hold them not go immediately to fixing it. Now, of course, if your four-year-old wants to sleep in your bed every night and you really want them to sleep in their room, then you do have to come up with the solution. You do have to fix it. But it's going to be a lot easier to get to that solution if they feel like their fears have been seen and held by you and that you really do recognize how intense and real their feelings are even if they're about something that's imaginary and silly from an adult perspective. They're still very real for the child. And so coming from a place of making those scary things OK to talk about making things being mad at mom or dad, things that can be really hard to talk about, making those things OK.

That's a huge gift that we can give our kids. And then we can give that to them, we can neutralize a lot of the meltdown behaviors that just feeds stress. And we can get so that-- we are on the same side with our child rather than in competition or in a battle of wills with them.

Sometimes that means-- going back to the last side-- sometimes that means recognizing what's your feeling versus what your child's feeling. So sometimes when your child is talking about something like being bullied at school or something like that, it can be really hard to hear. And we're actually as a parent having a really strong emotional reaction. We're feeling really angry or really sad or really maybe we're remembering our own experiences being bullied.

And so we're feeling all of the shame that comes with those old memories. And we're actually having this big emotional response. And sometimes that's what ends up driving our interaction with our child rather than really recognizing those are our emotions and putting them to the side and then paying attention to your child their cues, following their lead, and really being there to hold them in whatever they're feeling.

A lot of of the stresses the day-to-day stressors that can become really constant in a family can come from those kinds of things, can come from our own emotional reactions so that when a child is expressing their stress and upset about something, we're coming at them with our own stress and upset. And there's no room for theirs. And then we're locked into this system where nobody is feeling safe. Nobody is feeling heard. Nobody is feeling like there's a resolution that can come where people can really feel better.

So with the last few minutes, I want to end there. I want to thank you guys. There's my email address. It's a little bit cut off. But I think you guys all know it's wsu.edu. And then I want to leave the rest of the time to get your guys' thoughts, answer any questions, talk about any of this stuff a little bit more.

KRISTIN: Hello, Dr. Waters. Our-- one question goes back to your study and asks do you have any ideas about if the study would change if the father had raised the children primarily and the mother was more so the quote unquote breadwinner?

DR. SARA F. WATERS: Yes, I think it's a good question of whether or not it's a matter of-- in terms of the stress transmission or the stress contagion of whether it's a matter of-- who spends the most time being the primary caregiver for the child. When a-- there hasn't been that many years yet in American history where there are a lot of fathers who are the primary caregivers and mothers are the breadwinners. There's some, and it's becoming more so. But it's not been going on that long to be able to really study in terms of research.

But one thing that we do know is even when dads are providing a lot of the child care or even the majority of the child care, there still tends to be some differences between how moms provide care and how dads provide care. And so we still have these gender differences in terms of dads doing more active play with kids and mom doing more sort of snuggling play with kids that I suspect would mean that the kinds of sensitivity to these underneath the skin nonverbal communication in terms of stress contagion might still be there because moms still tend to be even, when they are not the primary caregiver, the ones providing the nurturing, the physical touch kind of caring, snuggling, nurturing kind of attention.

KAITLIN HENNESSY: Thank you. And real quick before we get into the next question, if you did come for HD301, please type that into the chat sometime before we end this evening. And we will record it. But moving on to question, someone asked what would a student have to do to be involved in some of your studies? I'd love to learn more about your studies.

DR. SARA F. WATERS: Yes. So for any of you guys out there who are in the Vancouver area, then that's a possibility. Like I said, I work with undergraduate research assistants in the lab. So they're the ones who actually a lot of times go out to the community, recruit families, are putting a little sensors-- I guess call them my baby whisperers, putting their little sensors on the babies, things like that. So the best way to learn more about that would be just shoot me an email, and I'd be happy to talk more about ways to get involved.

KRISTIN: Thank you. Next question asks if there is-- has been major stresses already, are there strategies for mitigating responses to stress already experienced in a family?

DR. SARA F. WATERS: Yes. So if there have already been major stressors-- so I don't know exactly what you're referring to, but I'm going to talk about it in terms of things like trauma, whether it's neglect or a death in the family or something like that. And so when there's trauma in the family, especially when it happens when children are quite young but really at any age, this is what I was referring to earlier as toxic stress. There are some really powerful and effective programs that families can do, interventions-- clinical intervention, to build a sense of safety and security in the family to process with-- telling the narrative of trauma or telling the story of the trauma and their-- and healing that way. So child-parent psychotherapy, sometimes called CPP-- child-parent psychotherapy is one example that has a really good research evidence base for changing not just the family dynamics of creating a safe, secure healed kind of family system but actually if there's also evidence that it changes stress biology in children who have experienced some of the most profound trauma in terms of maltreatment from their

parents, that those kids with CPP can actually rewire their stress biology to recover from those early traumas.

KAITLIN HENNESSY: Thank you, Dr. Waters. Our next question asks are there similar effects with adopted families rather than biological?

DR. SARA F. WATERS: So most of the families that we studied in the studies that I talked about tonight are biological families. They're just more prevalent in the communities that we were reaching out to. But I don't think that this is in any way like a genetic or a heritable that you have to be biologically related to each other for these things to happen in terms of this biological stress transmission or stress contagion.

So I think it's really about the bond that forms between the parent and child. It's really about the fact that the child knows from the very beginning that this is my person. This is my primary caregiver. And I need to be super tuned in to what is going on with them.

And I don't mean that a baby has that conscious thought in their head obviously. But what I mean is that we have-- we as human beings have evolved so that as babies we are very attached to-- we're very bonded to and tuned in to our primary caregivers. And that isn't about being a biological son or daughter. That's about this attachment bond, this love bond, this emotional connection that forms.

KAITLIN HENNESSY: Excellent and this will be our last question for the evening as it is nearing the hour. But the question asks how does culture impact how parents deal with stress in their children?

DR. SARA F. WATERS: That's a really great question. And it's true that there are cultural differences in terms of which emotions are acceptable to be expressed and how those expressions of different emotions or stress are allowed to occur. So, for instance, one of the most dramatic examples is when we compare an emotion like anger in Americans-- in American families to East-Asian families-- to Chinese-American families or Korean-American families-- where Japanese-American-- where there's a strong sense that you don't express anger in terms of yelling or pushing or getting your way, where we actually tolerate a fair amount of that in America-- in the primary American culture-- Western culture. That's really not an acceptable way to behave in an East-Asian culture.

And so I think that we have some awareness that there really are these strong cultural differences. You can also think in terms of the interconnectedness between people. So American Indian Alaska native cultures, many of them-- the community the interweaving of community members is really, really important. And so stress is going to look different and play out differently across a web of community members than it is in a Western American family that focuses a lot on independence and the child being their own person and not as much on the connections and the relationships across all of these different members of the family or the community.

So we have some appreciation for, yes, there are differences. We don't yet totally understand what that means in terms of things like this contagion of stress biology and things like that. That's a question that we still have to answer.

KAITLIN HENNESSY: Thank you so much for presenting tonight. It was fascinating information. And thank you everyone for coming. And we-- I did put a survey in the chat box connections.wsu.edu/eventsurvey. We'd love to know what you all thought of tonight's program as well as there's an area to suggest future topics that you'd like to see. Thank you so much and have a great night, everybody. Thank you, Dr. Waters.

DR. SARA F. WATERS: Thank you. Good night, everybody.