

Fundamentals of ACE Screening & Response in Pediatrics Webinar Transcript

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Tanya Schwartz: Hello, and thank you for joining today's ACEs Aware webinar. My name is Tanya Schwartz and I'm with Aurrera Health Group, previously known as Harbage Consulting, and we're very proud to be supporting the ACEs Aware initiative. Today's webinar is on the Fundamentals of ACE Screening and Response in Pediatrics. This is the fifth in a series of educational webinars that offer practical information on screening for Adverse Childhood Experiences and providing trauma-informed care.

Tanya Schwartz: I'll start with just a few quick housekeeping items. If we run into any technical difficulties and get disconnected, please dial back into the webinar using the same link, and we'll be with you as soon as we can. All webinar participants are muted, but you can submit questions at any time during the presentation using the chat feature on the panel on the right hand side. And finally this webinar is being recorded. So a recording, a transcript, and the slides will be available on ACEsAware.org by early next week. Next slide please.

Tanya Schwartz: The ACEs Aware mission is to change and save lives by helping providers understand the importance of screening for Adverse Childhood Experiences and training providers to respond with evidence-based interventions and trauma-informed care to mitigate the health impacts of toxic stress. Next slide.

Tanya Schwartz: Today we are really pleased to welcome four wonderful health care providers who have extensive experience screening and responding to ACEs. Dr. Nadine Burke Harris, the California Surgeon General, Simone Ippoliti, a pediatric nurse practitioner and site director at Bayview Child

Health Center, Dr. Lisa Gutiérrez Wang, Director of Children's Behavioral Health for Santa Cruz County and Dr. Eva Ihle, Associate Clinical Professor at the Departments of Psychiatry and Pediatrics at the University of California, San Francisco. Next slide please.

Tanya Schwartz: On today's webinar, Dr. Burke Harris will start by providing an overview of ACE screening and clinical response in pediatrics. And then I'll ask each of the panelists to introduce themselves and the clinical lens that they bring to ACE screening and response. And then they'll use those clinical lenses to walk through two case studies. Then we'll conclude with questions from the audience, and we've received an overwhelming number of questions in advance of the webinar.

Tanya Schwartz: So thank you to all of those who submitted them when you registered. But we also invite you to submit questions during today's webinar using the chat feature. We'll get to as many questions as we can today. But the presenters have generously offered to do a follow-up video to provide responses to additional questions. So stay tuned for more information on that. And now I will hand it over to Dr. Nadine Burke Harris, California Surgeon General.

Dr. Burke Harris: Thank you so much, Tanya. Thank you to Aurrera Health and the California Department of Health Care Services and the Office of the Surgeon General for the ACEs Aware initiative. I am so happy and excited. I can't talk about how excited I am to be here with you talking about the Fundamentals of ACE Screening and Response in Pediatrics and for child serving practitioners. Next slide please.

Dr. Burke Harris: When we think about ACE screening, we keep in mind that when we talk about ACEs or Adverse Childhood Experiences, the term ACEs refers specifically to the 10 exposures that were studied in the landmark research study by the CDC and Kaiser Permanente including physical, emotional, and sexual abuse, physical and emotional neglect, and exposure growing up in a household where a parent was mentally ill,

substance dependent, incarcerated, where there was parental separation or divorce.

Dr. Burke Harris: One of the things about ACE screening that's really important to recognize if you go to the next slide please, is that the purpose of ACE screening is not specifically to identify the ACEs per se, but a recognition that Adverse Childhood Experiences are risk factors for development of the toxic stress response, right? And we understand that the toxic stress response is a repeated exposure to adversity, leads to changes in neuro development, in the development of the immune system, in the development of our hormonal systems and even the way DNA is read and transcribed. And all of these together, this dysregulated stress response with neuro-endocrine immune and genetic regulatory disruption is what is now known as the toxic stress response. And this is what leads to health problems from behavioral to physical.

Dr. Burke Harris: One of the pieces that's really important is to recognize that the 10 ACEs identified in the Kaiser CDC study are certainly not the only risk factors for toxic stress. Other factors such as racial discrimination, separation from a parent or a caregiver for other reasons like deportation or migration or even a medical trauma may also be risk factors for toxic stress.

Dr. Burke Harris: One of the pieces that's really important to recognize is that while there's research underway to identify clinical diagnostic criteria and biomarkers for the toxic stress response, currently that doesn't exist, right? And so, the best indicator of whether a patient is at risk for toxic stress response and potentially experiencing a toxic stress physiology is cumulative adversity. That's what the science shows us. Cumulative adversity is the greatest risk factor for development of the toxic stress response. Next slide please. And so that is the reason why we screen for ACEs. And I will invite Simone to talk about what that screening process looks like in your clinical practice.

- Simone Ippoliti: Thank you Nadine. Our first step is that we typically administer the PEARLS and it's given by the front desk at the beginning of all well-child checks. And then again kind of as needed based off of if we have any sense that ACEs might be contributing to the reason for visit. So, if a family chooses not to fill out their PEARLS screener, we try to circle back with them and further assess why they might not have filled it out, give some education about the PEARLS, and then maybe they choose to then fill it out or hold off for the next visit. If they do fill out the screener, we then document it into the EHR and have a conversation with the family while trying to understand, is this a family where the child might be at low risk for toxic stress based off of the ACEs that they're reporting on their screener? Are they at immediate risk or high risk? And that helps us kind of reframe how we approach the visit. Next slide please.
- Simone Ippoliti: This is the PEARLS screener. It has two boxes that kind of point to different types of ACEs. I will say that in my experience, sometimes I have kids who put a zero for the first 10 questions, and then they light like a Christmas tree on the second seven. So I really try to integrate both sets of boxes when I'm thinking about risk for Adverse Childhood Experiences, or I'm sorry, risk for toxic stress given the ACEs.
- Dr. Burke Harris: And I'm going to just throw in a point here with you, Simone, is that the reason that these are separated into part one and part two is because when it comes to the traditional 10 ACEs, we have very large, robust population level data sets about relative risk of health conditions. So for example, with the traditional ACEs, we know that if an individual has four or more ACEs, their relative risk of, for example, ischemic heart disease is 220%.
- Dr. Burke Harris: When you add in other risk factors for toxic stress like discrimination or like being a victim of violence in the community or elsewhere, we don't have the same reference ranges for those datasets. And that's why we score those differently. It's not that they aren't all risk factors for toxic stress, but when it comes to the integrity of the data around the relative

risk of different health conditions, we have to compare apples to apples. And that's why they're separated in that way.

Simone Ippoliti: Thank you Dr. Burke. The other piece I just want to highlight here is that this is a de-identified screen. So you're not asking the families to report what happened to them, just the total number that did. And the reason why that's important is that the total number then allows you to adjust what your approach to this family is. You don't actually need to know right in that first visit what exactly happened to be able to do that. Next slide please.

Simone Ippoliti: We were talking a little bit about low risk versus intermediate versus high risk. And the reason why we talk about that is we take the score and we couple it with any kind of symptoms we might be seeing in the exam room, whether the family is coming in with abdominal pain, behavioral concerns, headaches, enuresis. And then we look at that in the larger context of what are the health conditions that this child has. Do they have asthma or other health conditions that are known to be associated with ACEs. And then that helps us kind of break down how we respond. So if a family comes in and they have an ACE score of zero, what that tells me is either they truly have an ACE score of zero, or that is kind of the score that they are ready to provide to me.

Simone Ippoliti: So I provide some psychoeducation around why we do this ACE screener to be able to start to normalize this process for them because every well visit that they come back to see me, we're going to readminister the screener. If they're in the intermediate to high risk zone, so let's say they're intermediate and they do have symptoms, then we're going to start to talk a little bit about what toxic stress is and how elevated stress hormones caused by Adverse Childhood Experiences can start to impact our overall health and may be contributing to some of the conditions we're seeing here today. Can then if... Go ahead.

- Dr. Burke Harris: No. Thank you. I just want to jump in and add one other point as well that a complete ACE screen, I think one of the common misperceptions is that an ACE score is an ACE screen, and that is not correct. As you'll see, an ACE screen is comprised of the score as well as assessing for ACE-Associated Health Conditions as well as your physical exam and your clinical assessment. So just being clear that the combination of the score and the clinical presentation is what comprises ACE screen.
- Simone Ippoliti: Thank you. Next slide please. Today we're really going to be focusing on some symptoms or health conditions that we know are associated with ACEs. And the ones we'll look at today are abdominal pain, behavioral concerns, especially within the context of school, and then breathing related issues. But I will say on a day to day basis, I see a lot of headaches, enuresis, ADHD-like symptoms, suicidal ideation, depression and anxiety to name a few. And these are all things that when I see them on the reason for visit, I'm wondering if the context may include a history basis. Dr. Burke Harris, would you like to add anything to this slide?
- Dr. Burke Harris: Yeah, sure. This list of ACE-Associated Health Conditions, if you'll notice, starts with more of the medical or the physical symptoms. And then the second part is, the lower half of the screen is focused more on behavioral and mental health symptoms. And one of the things that we see is that oftentimes as providers, we make the association between ACEs and for example, depression or anxiety, but it can be harder for us or we often may not realize the association, the literature or the evidence showing the association between ACEs and for example urticaria, or ACEs and frequent infection or poor dental health. And for this reason, this list of ACE-Associated Health Conditions is included in all of the ACEs Aware materials and is available on [ACEsAware.org](https://acesaware.org). Next slide please.
- Dr. Burke Harris: So now we'll jump into a few cases and these are de-identified real world clinical cases that can demonstrate, just to walk through how this ACE screening works in clinical practice and how it impacts our clinical decision making.

- Tanya Schwartz: Great. Well, thank you Dr. Burke Harris and Simone for setting the stage for this next section. So I'd like to ask all the presenters to come on video and to intro, there they are, and to introduce themselves and the clinical lens that you all will bring to these case studies on ACEs in primary care. So Simone, do you want to kick us off?
- Simone Ippoliti: Yes. So my name is Simone Ippoliti and I am a pediatric nurse practitioner and I'm a site director at Bayview Child Health Center. My clinical lens is really approaching these cases from a primary care and community health perspective.
- Dr. Gutiérrez Wang: Great. I'm Lisa Gutiérrez Wang, I'm a clinical psychologist. Most formative in the way that I approach my work was actually my training at the Child Trauma Research Program at UCSF. And there, I really learned about placing the child within the context of their primary caregiving relationships and also applying a dual trauma and attachment lens to my clinical interventions. So as I work with children and youth and families exposed to ACEs and with toxic stress, I'm always thinking about ways to build individual child coping capacities and then also really strengthening the caregiver's capacity to be an effective buffer. So that's the lens that I bring to the work.
- Dr. Ihle: And I'm Eva Ihle. I am a child and adolescent and adult psychiatrist as well as a neurobiologist. And so I will be looking at the cases through my lens as a brain doctor, specifically a child and adolescent psychiatrist with a background in neurobiology.
- Dr. Burke Harris: And I'll just add that, many folks know me in my capacity as California Surgeon General. But my background is as a pediatrician having begun ACE screening way back in 2009. So doing it over a decade now. And I come to this additionally in my role as a researcher, has done with the Bay Area Research Consortium on Toxic Stress and Health identifying biomarkers for toxic stress and really doing research on toxic stress physiology as well.

Tanya Schwartz: Great. Well, thank you all. And so with that, we'll go to the next slide. And Simone, I'll ask you to start walking through the first case study.

Simone Ippoliti: Absolutely. Our first case is about a five-year-old male and an eight-year-old female siblings who came to our clinic as new patients with their grandmother. And because it had been so long since their last medical visit, we decided to do a well-child check. As I said before, every well-child check we always administer an ACE screen. So I actually knew the ACE score before I even entered the visit. Next screen please.

Simone Ippoliti: The grandmother let me know that the five-year-old was having abdominal pain that started about five months ago, typically occurs at night before bed. He doesn't really have any clear triggers. He doesn't have any changes in his bowel pattern, no urinary symptoms, but he typically feels better when his grandmother lies down with him at night. They haven't tried any medication and she doesn't have any behavioral concerns and he is otherwise well. Next slide please.

Simone Ippoliti: For the eight-year-old sister, grandmother mentioned that she's been having some behavioral problems in school that the teachers would like an ADHD evaluation because she's been having difficulty concentrating in the classroom and has been having angry outbursts. And this has been going on for about six months when school started. She typically struggles with periods of transition, so when she's switching between activities or when she doesn't get what she wants. And the teachers are really concerned because she's starting to fall behind in class even though the last school year the teachers didn't have any concerns. She'd actually previously been a really good student. She otherwise physically well. Next slide please.

Simone Ippoliti: For both kids, they were born full term and they both had some mild delays earlier in life that seemed to resolve by the time they started their school year. Next slide please. Getting back to what I was saying, before I even started the conversation, I knew the ACE score. And that is really

important because I see that they both have an ACE score of five. And what that is doing is it's allowing me to reframe my approach to the visit. So I'm not necessarily thinking about what is wrong with these two children, but what happened to them. And I would actually take it a step further to say, I don't even necessarily need to know what happened to them to know that there was an existence of a history of childhood adversity. And that is really going to inform how I approach this case.

Simone Ippoliti: For the five year old, his physical exam is pretty unremarkable. Abdomen is nontender, no masses. His urine analysis was negative. For the eight year old, her physical exam was unremarkable. And because these symptoms have only been present for about six months, I actually don't think that ADHD is what we're looking at here. What I know so far is they have an ACE score of five and that both of their symptoms started around the same time. So now I'm starting to think that both of their symptoms might be related to their Adverse Childhood Experiences. And in the case of the five year old, I'm thinking that his abdominal pain is likely related to toxic stress physiology. For the eight year old, I'm going to take that a step further and say that I think that her emotional dysregulation in school might be related to complex developmental trauma, which I would kind of consider as within the realm of toxic stress. Next slide please.

Simone Ippoliti: The very first thing I do in every visit when I have a positive ACE score is I educate the caregiver about the connection between the ACEs and what I'm seeing in the room with the symptoms that I'm seeing. So I talked to the grandmother about ACEs and toxic stress presentations and how I think that what the children have experienced might be contributing to what we're seeing here today. And then I typically take a beat and let that sink in because for some caregivers that can be really distressing to hear, for some caregivers it's really relieving. And typically I would say across the board, it's really eyeopening, sort of this like aha moment. So I give them a minute to let that sink in.

Simone Ippoliti: And then we start to think about, what are the natural supports that currently exist in the home? And we are assessing those, we're validating those, and we're empowering those. And in this case, it's the grandmother. She is really the single supportive adult that is going to help buffer against the Adverse Childhood Experiences that these kids have had. And so part of supporting the grandmother is making sure that she had the tools and resources that are available to help make the whole family as resilient as possible.

Simone Ippoliti: And a step in that is making sure that we are doing a handoff to a behaviorist for trauma-focused therapy so that the family can start to process the trauma that they have experienced. As part of that larger team, I'm going to make sure that I'm following up with them really closely. So probably every two to three months to make sure that we are having a constantly evolving treatment plan that is responding to the current needs of the family and making sure that they don't fall through the cracks and continue to receive the resources that they need. Next slide please.

Dr. Gutiérrez Wang: All right. I was the staff person to take this warm hand-off from Simone to begin working with this family. When I am introduced to new families, my primary focus is going to be really on engagement and building a relationship and connection as well as really reinforcing the framework. So once again, reiterating the importance of the ACE screen and the conversation that they had with their primary care provider, and really placing that frame around our intake process so that the questions that I ask, the conversations that we're having continuously come back to ACEs and toxic stress and the need to support the caregiver and the child in moving forward. A big piece of my work with this particular family was really better understanding this grandmother's needs as she was the primary caregiver for two very young children. And so part of that conversation more and more came out around recent stressors. So those stressors happening within that last six months, that was actually

exasperating some of these presenting issues with both children. Next slide.

Dr. Gutiérrez Wang: Okay, here we go. What came out very early in the conversation once I really created this framework that we were working on ACEs and toxic stress was that the grandmother actually had a very extensive history with ACEs. I'm going to say four plus, but it was much higher than that. And when we were talking about additional adversities, it also came out that she had had a lot of experiences that really directly were related to racism and discrimination. This was a family of color. So we spent a lot of time actually looking at the caregiver's needs. So finding out about her history and then also recognizing that she was struggling with multiple chronic medical conditions and that this was taking her away from the home for periods of time where she was not available to these two children.

Dr. Gutiérrez Wang: A big part of what we did is actually work to get her connected and in some cases reconnected to her own primary care, specialty care, and behavioral health providers. And so that was really a key focus of our initial work. We also then started talking about the recent stressors, which included actually the biological parents coming back into the picture, re-emerging, and actually coming to the family home unexpectedly. And so, this really did heighten the sense of anxiety within the home and instability. The children were very much responding to the parents coming in without notice in the interactions.

Dr. Gutiérrez Wang: So a lot of the work was really focused on supporting the caregiver so that she could be a stable buffer for the children. Once again, getting her connected to her healthcare services to make sure that she was addressing those particular needs, and then really providing coaching and thought partnership around how to establish appropriate boundaries for when the parents were coming in and how to speak to the children in age appropriate ways about those interactions that they were having with their parents. So those were really kind of the key components.

Dr. Gutiérrez Wang: I will note that after that warm handoff, this process of really obtaining this history and supporting the caregiver did happen over multiple weeks. We would meet for about an hour and a half. So really also highlighting that when I received the referral, I had this de-identified ACE score, so five for the children. But it was really sitting down with the caregiver, establishing that relationship and that space and that containment, that we really were then able to unpack what those adversities actually were for both of the children, but also for the caregiver. And that really then formulated our treatment plan moving forward which of course included continued support of the grandmother and then also preparing the children for their own engagement and therapy. So for the younger child, that was child-parent psychotherapy, a dyadic two-generational approach. For the older child that was individual therapy with lots of collateral with grandmother. All right. Next slide.

Dr. Burke Harris: A couple of the key takeaways here is a recognition of the neuro-endocrine immune and genetic regulatory pathways that are part of toxic stress. If we see one patient, although both patients had an ACE score of five, one patient had a manifestation of abdominal pain while the other had behavioral changes. What we see is that siblings may have different presentations. We've seen this lots where one patient may have frequent infections while the other sibling is having issues with growth or something along those lines. But they often respond to a similar course of treatments, which is to reduce the sources of adversity and enhance those sources of buffering. A point to be made is that we commonly recognize the association between ACEs and behavioral or psychiatric symptoms but less commonly with some of the physical or medical manifestations.

Dr. Burke Harris: One other piece, a question that we get all the time is, how do you have the time to do this ACE screening within the context of a busy 15-minute visit? And what we see is that there are a couple of pieces. One, using the de-identified screen can make it much easier to contain the responses within the visit. But the other piece is recognizing that the primary care

provider doesn't have to do it all, right? We can divide and conquer as we saw was in this case with a handoff to a behavioral health provider. Next slide please.

Dr. Ihle: My role in this effort to support these children had less to do about direct service provision and more to do about offering information about the impact of toxic stress on brain function. And so, I'd like to start this piece of the presentation by highlighting that not all stress is toxic stress. We use the term toxic stress to specifically refer to the impact of complex developmental trauma and exposure to ACEs. But toxic stresses is actually on a continuum of stress in general. And this concept is illustrated in this figure of the inverted-U theory. It demonstrates the relationship between pressure, in this case the label of catecholamine release or otherwise conceptualized as arousal, and performance, which in this graph is the axis of PFC or prefrontal cortex abilities.

Dr. Ihle: This theory, this inverted-U theory, has existed for over 100 years, but it's actually been only recently as we start to understand how the brain actually works that we've come to understand the neurobiology that drives this phenomenon. This is the reference to the catecholamine release that is associated with the increase in arousal state and the fact that it's the prefrontal cortex that's behind our functioning as humans and the behaviors that we see. We've known that toxic stress, when we get into the other side of the U, after we've gone beyond the sweet spot at the top of the U, that's when we start understanding that toxic stress negatively affects brain function. We have come to understand that anxiety impairs working memory. So, if you notice that I am stumbling in my efforts to find words, well, that's a reflection of my anxiety state during this presentation.

Dr. Ihle: We also have recognized for decades now using small animal model systems that stress hormones actually cause cell death in specific brain regions, particularly these brain regions that are associated with working memory, specifically one area in particular is the hippocampus. We know

that stress equals death in terms of hippocampal neurons. And finally, when we think about the stress response behaviors, these fight or flight or freeze mechanisms, we can recognize that these behaviors actually mimic symptoms associated with certain psychiatric disorders. These symptoms include impulsivity, distractability, and even oppositionality. Next slide please.

- Dr. Ihle: When I'm thinking about potential interventions now in my role as a psychiatrist embedded in the clinic, I'm offering recommendations to the primary care providers about what pharmacologic interventions could be helpful. In circumstances where we see these behavioral manifestations of the stress response, the medications that I think about most often is guanfacine. It goes by the brand name of Tenex or Intuniv, and it's a remarkably effective medication for treating the stress response and those behaviors associated with it. Guanfacine is a selective alpha-2 agonist, and as such, it works directly on the brain in different parts of the brain. It works on the post-synaptic receptors in the prefrontal cortex in order to modulate attention, impulsivity and working memory.
- Dr. Ihle: And in addition to its actions on the prefrontal cortex neurons, it also acts in the brainstem on pre-synaptic receptors, these auto-receptors that modulates sympathetic nervous system activity. So the outflow of our stress response circuitry. And the combination of these two effects makes this medication a remarkable intervention for a pharmacologic treatment for the stress response.
- Tanya Schwartz: Great. Thank you Dr Ihle. Now we are going to move on to the second case study. And Simone, would you like to kick us off again?
- Simone Ippoliti: Absolutely. The second case study is about a 13-year-old athletic... One slide prior please. Thank you. 13-year-old athletic male who comes to see me after the first month of difficulty breathing when lying down at night. I said the first month because this case actually really spans over the course about closer to three or four months. After that first month, he

hadn't had any change in severity or frequency, but the trouble breathing typically occurred at night when he's trying to lie down. Next slide please.

Simone Ippoliti: His past medical history is notable for allergies, but he does not have any asthma that we know of or any other lung abnormalities. And his family history is negative. Next slide please. Like the previous case, the first thing they do is assess the data I already have at my disposal. So I'm looking at the ACE from the last well-child check and I see that it's zero. I'm looking at the last PHQ, which is a depression scale, and also see that that was a zero. And so, because he has this past medical history of allergies, and we're talking about his symptoms and I see a little bit of postnasal drip when I'm assessing him, I put him on a course of anti-histamines, a trial of anti-histamines. He comes back to see me the next month and he said, "Simone, that didn't work." So, we try a trial of albuterol to see if maybe he's just having some bronchospasm at night. And then he comes back and sees me and he said, "That didn't work either."

Simone Ippoliti: So then we go and we get a neck and chest X-Ray, which was negative and his O2 sat was always above 96%, even when he was lying down. So then he tells me, "Well, I do have really big dinners before bed. Maybe could it be that?" And so we try a trial of PPIs. Comes back to see me, no improvement. So now we're starting to kind of go back to the drawing board and I ask him what he thinks is causing his trouble breathing. And he says, "I'm really not sure, but I've been really stressed out over the last few months." He tells me that he's kind of holding onto this burden that he doesn't feel like he knows how to share.

Simone Ippoliti: So I re-administer the ACE questionnaire, and he has a score of three. So then I re-administer the depression scale and I tack on an anxiety scale. The depression scale is at a score of four so he's positive, but still really in that mild range. But his anxiety scale gets a score of 11, which tells me he is experiencing some anxiety. And so now I'm starting to think that his

trouble breathing may be related to significant stress and anxiety over the last few months. Next slide please.

Simone Ippoliti: The very first thing I do, similar to the last case, is that I try to create a connection for him between his ACE screener and his symptoms and help him understand how the increased stress hormone over time may be contributing to his troubled breathing at the time. And the next thing we do is we try to find those natural supports. So, we're trying to identify who are his supportive adults. And he shares that even though he hasn't shared or disclosed the content of the ACE screener with his parents yet, they are his supportive adults. And so we work out some kind of tools and pathways towards disclosing this information to them in a way that feels safe.

Simone Ippoliti: So he comes back and sees me after he talks to his parents and he says he's starting to feel a little bit better. But we know that at the point that a trauma really gets under your skin and starts impacting the way that your body processes stress, that that is not going to be a simple fix as just disclosing. So we started to work on what we call the ACEs Aware Self-Care Tool which looks at the six domains of wellness. And that includes sleep, exercise, nutrition, mental health, mindfulness, and healthy relationships.

Simone Ippoliti: And in his case, he has nutrition and exercise down. He does great. So we really started to look at how can we improve those other four domains? How do we work on his relationships, his sleep, his mental health, and his mindfulness. We set some goals around that, but he actually self-selected so he was able to really get a sense of what was realistic for him to work on over the next month, and we decided to follow up in another month. By the time he came back to see me, he said he was no longer having any trouble breathing and he was starting to feel a lot better. Next slide please.

Dr. Gutiérrez Wang: All right. So I'll jump in here. As a behavioral health provider partnering in this work, there are going to be a lot of cases in which you're not going to be called upon to provide a direct service. And this is one of those key examples. This is a youth with an ACE score and the intervention and support is happening with the primary care provider. So to note that behavioral health intervention is not always going to be indicated and there are some cases where actually exposure to ACEs and toxic stress physiology or symptomatology is maybe in the higher, that intermediate or higher risk range that might indicate that a behavioral health intervention would be helpful, but that a client or a family just might not be ready to engage at that level of care.

Dr. Gutiérrez Wang: So recognizing, one, that we may not be called upon, or we may not be called upon yet, and that we can be there to continue to provide a consultation to the primary care provider; and as they continue to work with the youth and family, there might be other opportunities to be included in the care in the future. Next slide.

Dr. Gutiérrez Wang: All right. If you are partnering and especially if you are embedded within a clinic, there are definitely lots of ways that a behavioral health provider can provide this additional support to the PCPs. That could be by providing information. In this particular case, if Simone was really trying to think about maybe internal or external triggers that might be happening at night that are causing this problem with sleep, the behavioral health provider might be a really good source of information, specific resources or tools, psychoeducational materials that could be made available, and really just to provide additional thought partnership. So that is one particular role that a behaviorist can provide, especially if they are available and embedded within a clinic setting. Next slide.

Dr. Burke Harris: That's me. A couple of key takeaways from this case. Number one is that false negatives do happen and that's not an indication of not to screen. In fact, it's the opposite. Routine screening helps to normalize inquiry and also helps patients to be able to make that association between those

experiences of adversity and their health, right? And so that is a really important role that we can play as primary care providers to help patients make that connection. It also reflects the importance of continuity of care because although a patient may not disclose at the first time that they're asked or the first time that they're questioned or that they're screened, developing that relationship, right? The relationship between the primary care provider and the individual or family is so important and that can really be a vehicle to enhance getting this important information.

Dr. Burke Harris: Another important takeaway is that many ACE informed treatment plans can be managed within the primary care home. Even if you have access to mental health care services, it doesn't necessarily mean that the patient has to see a mental health provider. Understanding that an overactive stress response may be part of the physiologic mechanism that is part of the patient's presenting symptom can be a really important part of, number one, informing your clinical decision making and walking through that differential diagnosis to be able to better arrive at a more effective treatment. Next slide please.

Dr. Burke Harris: For adolescents, one of the really important things is helping to normalize the biological stress response and letting them know that it's normal. That because of what they've experienced, that their bodies may be making more stress hormones, right? That's actually a sign of their bodies trying to protect them. But because of what they've experienced, that this can have an impact on their health. And so we really want to focus on strategies that help to reduce the activation of the stress response. And so when we look at those six domains of sleep, exercise, nutrition, mindfulness, mental health, and healthy relationships, all of these interventions are interventions that are documented to reduce stress hormones, reduce inflammation, and enhance neuro-plasticity. And we recognize those are all aspects of the mechanism of toxic stress.

- Dr. Burke Harris: Another thing that's really important that's demonstrated in this case is to emphasize what patients or families are doing well, right? So really taking that strengths-based approach. In this particular case, this youth was doing a fantastic job with exercise and nutrition. So it's great to congratulate them on that and then encourage them to double down on the areas that they're doing well. And then also introduce a few simple goals where they can follow up. And that self-care tool that Simone utilized is available on the ACEs Aware website under "Resources".
- Dr. Burke Harris: Finally, particularly for adolescents, they can also benefit from mindfulness interventions, especially for adolescent athletes. Steph Curry, he was a basketball player, he's a big mindfulness person. But mindfulness can also help to regulate the stress response and be important for adolescents, especially they can download a mindfulness app on their smartphone and it can be a useful tool for them. Next slide please.
- Dr. Burke Harris: I want to emphasize that this information and lots more information about ACEs and toxic stress, trauma-informed care is available on the ACEs Aware website. Providers, in order to qualify for the reimbursement, need to take the training and attest to having taken the training by July 1st. After July 1st, in order to be reimbursed, it's required that providers have made that attestation. It's two hours of CME and MOC credits. So we want to encourage folks for that reason. Next slide please.
- Dr. Burke Harris: And finally, some of the tools that were demonstrated here in terms of the patient self-care tool, the screening tools, the list of ACE-Associated Health Conditions, all of these are available on the ACEs Aware website. You'll also find a Provider Toolkit that is downloadable that you can get all of these resources available on that website. And in addition, on the ACEs Aware website are resources not only for providers but also for patients. Patient handouts on what are ACEs and why do they matter, toxic stress, these domains of wellness. These are things that are as

available as patient handouts, so I encourage folks to go to the website and explore the resources that are available. Next slide please.

- Tanya Schwartz: Great. And so with that, I'm going to have all of our presenters join us again, and I want to thank everyone. We've received a lot of questions, a lot of questions both in advance and today. So, I'm glad. Thank you in advance for your offer to respond to many of those questions even after today. My first question is for Simone and Dr. Gutiérrez Wang. We received a bunch of questions asking about what strategies you and your team use to avoid re-traumatizing patients and their family when you're doing the ACE screenings. Simone, do you want to start and then pass it off?
- Simone Ippoliti: Sure. I would say the most significant thing we do is we're really attuned to the family's readiness to kind of engage in that conversation. The first time that I administer an ACE score, I'm not looking to find out what those ACEs are. If anything, I mean, I take in the ACE score, I explain why we ask these questions. I try to make a connection to the larger picture but I'm not looking to really delve into the family's trauma because we haven't yet created that trusting relationship for me to be able to successfully hold that space for them just yet. So the idea is you're really kind of honing in on continuity of care and developing that relationship over time with that family and/or making those connections to mental health connections who can hold that space a little bit better.
- Dr. Gutiérrez Wang: For me I think the biggest piece is really around the planning. So before you actually start screening for ACEs, really preparing your clinic staff. That's the administrative staff, your medical assistants, your primary care providers, everyone within the system around the rationale. So why are we screening for ACEs? Because we know that exposure can increase a risk for toxic stress, and that has impacts on health. So been really clear about the rationale. And then the next piece really, I think, is normalizing the screening process within the clinic. One thing that I felt was really helpful were the posters that we have or still have up in the clinic, both in

the waiting area, in the individual exam rooms. And they say things like, "We screen everyone."

Dr. Gutiérrez Wang: We screen everyone because we know that adversity and trauma can impact your health. And asking is providing good care, right? So anyone who sees that sign, and we have them in multiple languages, understands that if you are presented with the ACE screening form, it's not because you've been identified as someone that we are curious about. It's really about everyone because this is part of good health care. So I think that keys of preparing your staff, normalizing the screening process. If you are having your front desk or medical assistants introduce the screen, really giving them tools on how to present it.

Dr. Gutiérrez Wang: Understanding that if folks have questions they feel like they can't answer them, to give them language around saying you can talk to your PCP about this further, and that they don't need to complete it, right? This idea that it's not something mandatory or they're not being placed in this position of needing to get this information, or there is need to get an accurate number, right? Really kind of giving the tools in that context so that staff understand what their role is in the process and when they can hand it off to the next partner because this is really about a team-based approach.

Dr. Gutiérrez Wang: The last thing I'll say is really being thoughtful about whether you're going to use the identified or the de-identified version. I think the de-identified gives you just, there's so much value in it. It gives you that dose that you get the amount of exposure and that gives you information around risk for toxic stress, but it doesn't require that you need to get into the individual forms of adversity that the child may have been exposed to. I think for some clinics they may choose to go with the identified version, but I think that has to be really within the context of understanding what your internal resources are within that clinic setting, including if you have integrated behavioral health or other folks who can

step in to really provide that additional containment if individuals are triggered by completing that particular tool.

Dr. Gutiérrez Wang: Lastly, I'll just say that the response that we get from most adolescents or caregivers that are completing the ACE screening tool is that they really welcome it. These are experiences that they've had. So overall it's a really positive experience, and I think that's really important to highlight.

Tanya Schwartz: Thank you.

Simone Ippoliti: One last thing I would add to that is just the importance of explaining, as the primary care provider explaining to families, acknowledging that you read it, that you read the ACE screener and that you then reflected back to them. You explained to them why it's important. That is so, so crucial to having an effective ACE screen because I think sometimes we're moving so fast and we're trying to get everything done and we just look at the screens and then continue. But what's so important is really making it clear to families why it's so important that we ask these questions and then acknowledging the honesty with which they responded to that screener and that you value the space that they allowed us to participate in. I promise it is honestly like a 60 seconds spiel that I give every time it does not add very much in terms of time to my visit, but it is so invaluable to really close the loop on that.

Tanya Schwartz: And Simone, speaking of that, we received a question asking if you could give an example of how you would give the results to the grandmother in case one, in terms of the types of words you would use. Is there anything you want to say about kind of how you talk about that?

Simone Ippoliti: Yeah. Typically when I am reflecting on a ACE score, I let the caregiver know that the score reflects that these children may have experienced a higher level of adversity that may be impacting their health. I believe that this adversity may be causing essentially an imbalance of the stress hormones in their body, and that stress has really gotten within their skin

and is impacting how their body processes stress. And because of that, I think that this imbalance of stress hormones, and I typically kind of tie back to the fight, flight or freeze response, that that might be contributing to the symptoms we see here today. So for instance, for the grandmother, I really try to tie like these symptoms started five minutes ago with the abdominal pain, uh, five months ago with the abdominal pain.

Simone Ippoliti: And regardless of what exact ACEs exist on this screening tool, I believe that there is a link here between this ACE score and the onset of these symptoms. And I typically actually just like then shift the dialogue back to the caregiver to really start to fill in the pieces because a lot of times that at the light bulb, often their own mind, and then they're able to sort of fill in the picture in a way that maybe they share with me, maybe they don't. But it actually isn't for me that that picture starts to get formed, it's for the caregiver, for the family. And this isn't a conversation that necessarily almost ever happens in just a single visit. This is something that we kind of carry through over multiple visits. So you're not trying to solve the whole pie in a 15 minute appointment. You're understanding that maybe you need to get them back in for a followup in a week or two to continue this dialogue.

Dr. Burke Harris: One little thing that I wanted to throw in there is that while the ACE Aware initiative is focused on screening not only kids but also adults, this webinar is focused on screening first child serving clinicians, but completing an ACE screen for the child oftentimes will bring up experiences for the adult. It gives them an opportunity to reflect on their own ACEs and often to reflect on potentially the impact their own ACEs have on their health as well. And so that's also an opportunity to encourage them to speak to their own primary care provider about their own history of ACEs. And fortunately, ACEs Aware has resources for adult providers as well.

- Tanya Schwartz: Great. Thank you. It looks like we can squeeze in one more question, even though there are many, many to get to, and so it's hard to choose. Dr. Burke Harris, I might ask you and if Simone wants to jump in, but what advice do you have on how providers can truly integrate ACE screening and response into their clinical practice?
- Dr. Burke Harris: Yeah, that's a great question. One of the pieces that I think is really important is recognizing that in our day-to-day practice, like when we look at the fact that 62.7% of Californians have at least one ACE and 17.6% of Californians have four or more ACEs, in our daily clinical practice, we are seeing many, many, many people who have significant ACEs and it's impacting their health. So whether we're screening or we're not screening, we are seeing the impacts of health, of ACEs, in our clinical practice.
- Dr. Burke Harris: One of the things that I think is really important for clinicians, I think oftentimes there's a worry that if you screen for ACEs, that you have to "boil the ocean", that you have to have the entire response mechanism available within your clinic. I think that some of these cases help to demonstrate that you don't necessarily have to have everything within your clinic. But before you begin the screening process, it's really important to understand what you're going to do with a positive screen, what are the resources in the community or other providers that you can refer patients to, or what are the ways in which you can connect families to needed supports.
- Dr. Burke Harris: I think that one of the most effective ways to systematically integrate ACE screening into your clinical practice is really around the differential diagnosis. In my many years of ACE screening as part of the clinical practice, the ACE score has become like an additional vital sign, right? If I'm looking at abdominal pain or headache or chest pain or constipation and it's in the setting of a patient with a high ACE score versus the setting of a patient with a low ACE score, it really informs my clinical decision making. And so really understanding the biology of toxic stress and how

that can impact health in my clinical practice really made my clinical decision making more efficient and more effective.

Tanya Schwartz: Great. Thank you Dr. Burke Harris. We are just at time. And so I want to thank all of our wonderful presenters and thank you all for joining today. And I want to remind everyone to go to [ACEsAware.org](https://acesaware.org) and complete the online provider training and attest to completing it. We'll also be sending out a survey about today's webinar. So we'd really appreciate your feedback on that. Our next webinar is July 29th, and it's going to be on Fundamentals of ACE Screening and Response in Adult Medicine. And finally, a recording of this webinar will be emailed out to all of the attendees and posted on the ACEs Aware website early next week. So please share it with your colleagues who might be interested, and we hope to see you at next month's webinar. Thank you all so much. Have a great rest of your day.

Dr. Ihle: Thanks everybody.