How ACEs Aware Training Can Support Providers and Patients During COVID-19 – Transcript

February 24, 2021

Sam Mills: Hello, and welcome to today's ACEs Aware webinar on how "How ACEs Aware Training Can Support Providers and Patients through COVID-19." This is our eleventh educational webinar in a series designed to provide practical information on screening for ACEs and providing trauma-informed care. Your feedback is highly valued and used to create our webinar content, so please continue sharing your thoughts with us after each one of these events.

Sam Mills: My name is Sam Mills and I'm with the Aurrera Health Group, and we're proud to support the ACEs Aware Initiative. Before we introduce our speakers today, I want to remind everyone that you are able to receive Continuing Medical Education (CME) and Maintenance of Certification (MOC) credits through this ACEs Aware webinar. All information related to CME and MOC credits can be found in the chat. These credits will also be available to providers viewing this ACEs Aware webinar after today's event.

Sam Mills: As always, we want to thank those of you who submitted questions in advance. Many of those questions will be covered during our speaker presentations, and during our question-and-answer section at the end of this broadcast. Attendees and the chat function are muted, but please submit any questions via the Q/A icon at the bottom of your screen. Our ACEs Aware team will respond to you directly, and we'll also be sharing some resources in the chat throughout our presentation. In addition to information on CME and MOC credits, you will also find a link to today's slide deck in case you'd like to follow along. And finally, if you run into any technical difficulties, have issues with your device or sound, we will be posting a recording and transcript later this afternoon at ACEsAware.org.

Sam Mills: Now with that, let's get started. The mission of ACEs Aware 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.

Sam Mills: As I shared earlier, this webinar is eligible for CME and MOC credits. Please be sure to share this webinar with colleagues that may be interested, but unable to join us today. Today, we will hear from three speakers. First, we'll hear from Dr. Dr. Devika Bhushan, Chief Health Officer at the Office of the California Surgeon General. Then we'll hear from Dr. Eric Ball, a pediatrician with CHOC Primary Care Network. And finally, Dr. Martina Jelley, an internist and professor and Vice Chair for Research at the University of Oklahoma School of Community Medicine.

Sam Mills: On today's webinar, we'll begin with a refresher around definitions of ACEs, toxic stress, and principles of trauma-informed care. Then we'll discuss how acute stressors can activate the toxic stress response and affect physical and mental health, including increases in ACE associated health conditions. This will be followed by a pediatrician and an adult provider sharing their experiences in clinical practice, how ACEs Aware training and buffering resources have helped support their patients during the pandemic and providing specific case studies. Lastly, we'll end by answering some audience questions. With that said, I'm excited to hand it over to Dr. Dr. Devika Bhushan.

Dr. Devika Bhushan: Thank you so much, Sam. My name is Dr. Devika Bhushan and it's a real pleasure to be here with all of you today. As Sam said, I'm the Chief Health Officer at the Office of the California Surgeon General and I'm a pediatrician by training. Today we're going to be talking about the secondary health impact of COVID-19. As we all know, COVID-19 has claimed over 2.4 million lives globally. It's had untold impacts and completely changed life as we know it. It is also shown a very stark light on very many inequities in our society that have predated the pandemic, and which have led to hugely disproportionate impact of the pandemic on already vulnerable people.

Dr. Devika Bhushan: Today, we're going to consider the secondary health impacts of the pandemic. This refers not to the impacts of the direct COVID morbidity and mortality that have resulted from those who have gotten COVID, but really to the adverse health effects that result from living through the conditions that have been put into place by the pandemic. What we're seeing with secondary health impacts too has been a story of worsening social inequities and health disparities. In May, we spent some time reviewing the previous literature on infectious disease outbreaks, natural disasters, and economic downturns, and made some predictions of what we might see now during the COVID-19 pandemic.

Dr. Devika Bhushan: Now we have some further data points that can show us specifically how those predictions have turned out and we're going to continue to learn more as the months progress. We're going to spend time on what we've seen so far with respect to secondary health impacts from COVID, their underlying mechanisms, and then most importantly, how we can address these secondary health impacts in clinical practice.

Dr. Devika Bhushan: In general, what we're recognizing is that through several mechanisms, the pandemic has really increased cardiovascular, metabolic, immunologic, and neuropsychiatric risk. Overall, we're seeing a pattern of more poorly controlled chronic disease and severe consequences from that. These impacts have included increased risk of heart disease and stroke, including of fatal events in those categories. With diabetes, we've seen some improved control, but then some worsening control in other cohorts, and evidence of increasing rates of new onset diabetes and catastrophic consequences of diabetes, including DKA or diabetic ketoacidosis, which was about eight times higher in the pandemic in one Australian cohort as compared to right before it.

Dr. Devika Bhushan: We've seen worsening of chronic kidney disease because of interruptions to dialysis and other necessary care. Worsening of dementia care and outcomes, including increased death from dementia. Lower preventive screening rates and detection for various kinds of cancer, including breast, cervical, prostate, and colon cancer. Poorer oral health because of a decline in restorative and preventative dental care.

Dr. Devika Bhushan: And then globally, what we're seeing is increased risk for perinatal health outcomes. This has included unintended pregnancy rates spiking because of decreased access to safe contraception and abortion services, and to adequate perinatal and birthing care services. We've seen increases, unfortunately, in maternal and infant mortality rates across the board in many countries. We've also seen developmental and learning loss, especially in the face of these widespread school closures.

Dr. Devika Bhushan: And of course, there's been a huge spike in new and recurring mental and behavioral health conditions, including depression, anxiety, suicidality, post-traumatic stress disorder, substance use disorder. There's also been increases in interpersonal violence, as well as risk factors for violence like increased firearm purchases resulting in spikes in child abuse and neglect and in intimate partner violence. All the conditions that we've marked with an asterisk are really ones that contribute to the leading causes of death in the US.

Dr. Devika Bhushan: Here, you can see bolded all of the conditions that are leading causes of US death that have either gone up during the pandemic or been adversely affected in some way. And you can also recall that these are all ACE associated health conditions as well, meaning that those who have had a history of ACEs are also more likely to experience these conditions in a dose dependent way, and often earlier on and more severely than those who haven't had those ACEs. Many of these conditions will also predispose to more serious infection and death with COVID-19.

Dr. Devika Bhushan: Overall, about 25% of the excess burden of death in the US since the pandemic has begun is attributable to the kinds of secondary health impacts that we've just reviewed. Now you can see that the experiences that are categorized as ACEs on this slide are colored in red. Those who are listening to this webinar will be very intimately familiar with ACEs, but just to remind us all.

Dr. Devika Bhushan: ACEs are the 10 categories of adversities experienced by age 18, studied by Kaiser Permanente and the CDC. These include three kinds of child abuse, two kinds of child neglect, and five

types of household challenges, which include intimate partner violence and growing up with somebody who is substance using or has untreated mental illness in the household. What you can see is that the secondary health impacts from COVID have necessarily resulted in an increased population burden of ACEs, as well as a decrease in the conditions that really can act as buffering sources. And therefore, we've seen a huge spike in the number of individuals who are likely suffering from toxic stress.

Dr. Devika Bhushan: Zooming in on one ACE in particular, household substance use, what we can see here is that the CDC collected data showing that deaths from overdoses have really spiked in the pandemic. You can see pre COVID deaths in pink, and then those resulting since the pandemic began in maroon. The largest increase has been due to synthetic opioid intakes, followed by cocaine, followed by psychostimulants.

Dr. Devika Bhushan: This shows ED data from January 2019 to September 2020. The 2020 data is in dark blue. The 2019 data is in light blue for comparison. What you can see here is that after the national health emergency was declared in March of 2020, the number of emergency room visits related to either suspected or confirmed child abuse and neglect that ended in hospitalization rose significantly. These were the events of really serious cases of child abuse and neglect. And this was despite the fact that reports to child protective services across the US in the same period have really declined by 20 to 70% depending on where you're looking, largely because this phenomenon has gone underground and there are fewer witnesses and mandated reporters who are in the loop, such as teachers.

Dr. Devika Bhushan: Child abuse and neglect, as we know, constitute five of 10 of the ACEs. This pattern of increase during the pandemic is true for all of the ACEs about which we have data currently. And as we've said before, we also know that formal access to buffering factors is now lower than it has been in the past. And so, this problem needs to be attended to more closely than ever before.

Dr. Devika Bhushan: When we look at all of the secondary impacts that can result from COVID-19, there are basically three buckets of reasons for these kinds of impacts. First, we're all facing a whopping dose of acute stress right now. This is true for patients, this is true for providers, and this results from multiple compounded stressors. There's widespread anxiety about the risks and the consequences of COVID-19. There's grief and loss resulting from the pandemic, economic strains from lost wages and financial assets, widespread school closures, increased childcare demands, profound socialized relation, and disruption resulting from physical distancing measures. And then, the stark moments of our reckoning with racial injustice and other deep-seated inequities in our society.

Dr. Devika Bhushan: This all represents a perfect storm for acute biological toxic stress activation. Acting through disruptions to neuroendocrine, immune, metabolic, and genetic regulatory systems, this can directly lead to stress related morbidity and mortality. Hold that thought because we're going to come back to it.

Dr. Devika Bhushan: Two, there's also been a disruption to healthcare access and resources, especially in the context of job and health insurance loss. There's been shifts away from preventative care and procedures. All of this has reduced access to health care for chronic disease management, including access to medications and procedures that are necessary. Fear and anxiety about COVID has further decreased or delayed needed care in situations such as emergency departments and urgent care settings, which we'll come back to as well.

Dr. Devika Bhushan: And number three, there's been a disruption in opportunities and financial resources for health maintenance activities. There's been, for instance, decreased allowances for safe places to exercise or adequate access to healthy foods. Because as we know, the pandemic has really increased financial, housing and food insecurity across the board.

Dr. Devika Bhushan: If you have taken the online ACEs Aware training or looked at the provider toolkit. You will know this image well, and you'll remember that toxic stress describes the way in which the brain and the body can encode high doses of adversity, which are not sufficiently buffered by safe, stable, nurturing

relationships and environments. Toxic stress can include long-term disruptions to brain structure and function, hormonal axes, the immune system, and metabolic processes throughout the body. This happens via changes to the way in which genes are read and transcribed, which are recognized to be passed from generation to generation. Toxic stress can even change the length of telomeres, which are the ends of DNA, and their length correlates with earlier cell death.

Dr. Devika Bhushan: Because those who have experienced adversity may already have toxic stress physiology in place, their brains and bodies are what we call biologically stress sensitized in the context of the pandemic. These individuals are more vulnerable to the impact of acute stressors and to the stress-related secondary health impacts that we've just talked about. Folks with underlying vulnerability would be those with a history of adversity, those with lower incomes and education, those who might be more vulnerable to job loss, to housing insecurity, food insecurity, poverty, and those with underlying chronic health conditions, disabilities, and older age.

Dr. Devika Bhushan: Those with pre-existing adversity, as we're saying, are at greatest risk both biologically and sociologically for the added impact of acute stressors like the COVID-19 pandemic and all of its consequences. And thus, the equity lens is really crucial to incorporate when we're thinking about preventing and mitigating some of these secondary impacts.

Dr. Devika Bhushan: I'd like to take a minute to consider how toxic stress directly increases risk for a couple of the health conditions we've talked about already, heart attacks and strokes specifically. We can have similar charts for other diseases, but here what you can see is that acute stress directly increases sympathetic output, which results in greater blood pressure and heart rate. It also increases inflammation. And then thirdly, it creates a hypercoagulable state by a few different mechanisms that include endothelial cell dysfunction, platelet and hemostatic activation, and increased blood viscosity, which all together end up promoting easier clot formation, and then predisposing folks to having strokes and heart attacks.

Dr. Devika Bhushan: Immediately following the start of the pandemic, even though we know that physiologically people are primed as a result of toxic stress physiology to have more severe cardiovascular and cerebrovascular events, the CDC published data showing that ED presentations for both heart attacks and strokes fell by about 23% and 20% in those months. This was largely due to fear about contracting COVID rather than to a decreased incidence of these conditions. Next slide, please.

Dr. Devika Bhushan: This is data from Kaiser Permanente in Northern California which showed that the overall rate of hospitalization for heart attacks decreased by almost 50% during the first two months of COVID-19. The red line compares 2020 to the year 2019 in yellow. Similarly, we know that acute stroke presentations have decreased overall in the pandemic also, down 30% according to one report from Ohio.

Dr. Devika Bhushan: Similar to heart attacks, what we're seeing is that early risk factors for stroke are being missed. Here you can see data from Denmark that shows that after the pandemic began, in March and April, there was about a 50% decrease in the cases of atrial fibrillation that were being detected that are shown in the blue bars. Atrial fibrillation is an arrhythmia of the heart that predisposes to stroke. What was seen is that the odds of a stroke or death resulting from first-time atrial fibrillation that was underdiagnosed in this context during lockdown, so stroke and death resulting from undiagnosed AFib was about 41% higher shown in the dashed and the solid lines here.

Dr. Devika Bhushan: Because we know what a large role of a stress response itself plays in causing these disease flares, regulating that stress response is a very important part of the treatment strategy for secondary health impacts from COVID. And this is what we're championing here at the ACEs Aware initiative. These evidence-based strategies are sure to be super familiar to the viewers here and they are enhancing supportive relationships, high quality sleep, balanced nutrition, physical activity, mindfulness practices, access to nature, and then mental health care as needed.

Dr. Devika Bhushan: As Dr. Jelley and Dr. Ball are going to describe further, attending to ACEs and toxic stress now in patients is more

important than ever before. To learn how to optimally assess for toxic stress risk and how to implement strategies to regulate the toxic stress response, we encourage all providers to get trained at ACEsAware.org. Thank you so much for your attention. With that, it's my pleasure to turn it over to Dr. Ball, who will discuss with us how to implement these toxic stress mitigation strategies in the context of pediatric primary care.

Dr. Eric Ball: Hi, my name is Dr. Eric Ball. I'm a pediatrician with the CHOC Primary Care Network. I'm here today to talk to you about the effects of the COVID-19 pandemic on our practitioners and our patients and their families, and how the training that we practitioners received through ACEs Aware has helped us to become better practitioners, and also to empower our patients to deal with the pandemic in a more healthy way.

Dr. Eric Ball: We've all been on a mental health rollercoaster over this past year during the COVID-19 pandemic. As you probably recall, at the beginning, there was a coming together in what we call the Honeymoon phase, where most of us felt that we were in this as a community, in it together with a common enemy. Although, over the past several months, we've all been in this Disillusionment phase. In this phase, we're all feeling down and depressed and worried that this is going to last for a very long period of time. Now, over a year into this pandemic, we're starting to see the mental health effects of the pandemic and the mitigation effects related to the pandemic on both ourselves and our patients and their families.

Dr. Eric Ball: I want to talk briefly about the way that this COVID-19 pandemic has been affecting our patients, and in particular young people. I like this survey, put out in the middle of the pandemic, called "The State of Young People during COVID-19." It asked a large diverse group of children and adolescents, how the pandemic and mitigation effects have been affecting them.

Dr. Eric Ball: The first thing they asked was they looked at how this is affecting their educational situation, and how they are learning. Most of the people interviewed in this were doing primarily distance learning, and over half were spending no time directly in the classroom. And this was very problematic

for kids because it took away from their community, and from their social support networks.

Dr. Eric Ball: When we looked at how connected our patients felt during this time, we found that more than half were disconnected with both their school community, their school adults, and their classmates. This is very problematic as you know from our Adverse Childhood Experience literature because strong connected relationships is vital to allow children to get through difficult times.

Dr. Eric Ball: We also found that children at this time were having more concerns about things that they really shouldn't be concerned about in normal times. They were concerned about their own health and their family's health, their family's financial situation, their education. And a substantial percentage were afraid of their own basic needs, including food, medicine, safety, and shelter. These are problems that children and adolescents should not have to deal with and they were having very difficult times during the pandemic.

Dr. Eric Ball: This study also looked at youth reporting poorer emotional and cognitive health. And the people conducting the study showed that upwards of 50% of families and 50% of students were having poorer emotional health. And this was not equally distributed. The researchers found that this was higher in populations of parents were born outside of the US. And the theory behind this is that these are likely people who were in essential provider role, such as grocery workers or health care providers, and therefore they are at higher risk for getting sick with the COVID-19 pandemic.

Dr. Eric Ball: The next thing the study looked at was whether these students would benefit from mental health support. One in four actually acknowledged that they were feeling depressed and had a mental health illness during this COVID-19 pandemic. Most recognized that they would find support helpful when it was offered. The problem was, it wasn't offered very much, and part of this was because they were disconnected from their communities.

Dr. Eric Ball: Shifting gears a little, I want to talk about how the COVID-19 pandemic has been affecting parent-child psychological well-

being. This is a study which was recently published, which looked at difficulties that families were having at home related to the COVID-19 pandemic and mitigation effects. This looks at job losses, income losses, caregiver burden, and household illness. What they found in this study was that children and adults had mental health issues that were directly proportionally related to the number of household adversities that were happening due to the COVID-19 pandemic. This was interesting because this is exactly what we see with Adverse Childhood Experiences. It's almost a dose-dependent effect. The more the pandemic was affecting the family and the household, the worst the child was from a mental health perspective.

Dr. Eric Ball: Another thing that we've been seeing greatly is mental health emergency department visits during the COVID-19 pandemic. As a primary care pediatrician, I have seen more mental health emergencies over this past year than I had in the previous 15 years of my practice combined. This is a study that was recently done, showing mental health emergency visits during the pandemic. And obviously there's a huge uptick right when the lockdown started in mid-March of 2020, and it's continued to this day.

Dr. Eric Ball: Another study, which was published in February of 2021, looked at all sorts of mental health emergencies that were coming to our emergency departments during the pandemic. These included drug and opioid overdoses, intimate partner violence, suicide attempt, and other mental health conditions. And what they showed was that there was a huge uptick in the amount of mental health ER visits, which started almost exactly when the lockdown began. And these have persisted up until today.

Dr. Eric Ball: These effects are not only affecting our patients and our families, but the effects of the COVID-19 pandemic are also affecting us as practitioners. We are also having difficulty both financially and emotionally. We've seen cases of doctors who have committed suicide due to the trauma of all of the death and hardships that we've seen. And then most of us are suffering financial burdens just like everyone else due to practices closing down and decreasing patient visits because

they're fearful of coming to the office. This is a problem that's not only affecting our patients and our families, but also ourselves. One of the things we learned through ACEs Aware is that it's not only critical to take care of our families, but also to practice what we preach and make sure that we are taking care of ourselves.

Dr. Eric Ball: Let's talk briefly about how the COVID-19 pandemic and all of these mitigation effects is affecting our patients from an ACEs Aware way. In the ACEs literature, we talk about positive stress, tolerable stress, and toxic stress. Positive stress is the normal stresses that we go through on a day-to-day basis or a year-to-year basis. These are things that are difficult. They cause elevations in our stress response, but they're good for us. They train us. For example, a positive stress would be your first day of school. It's important that you learn the ways to get through those times because if you had no stress in your life, you would never learn how to deal with adversity.

Dr. Eric Ball: Tolerable stress are very difficult situations that activate the body's stress response in response to a long lasting or a very difficult situation, but they are buffered by supportive relationships or other buffering factors that we'll talk about soon.

Dr. Eric Ball: Toxic stress is prolonged activation of the stress response in the absence of these buffering relationships and responses.

Dr. Eric Ball: COVID-19 is an extremely stressful experience for all of us. And for many of us, it's the most stressful experience we've ever had. The way we deal with it has to do with the way that we use these buffering relationships and our resiliency factors to get through these difficult times. I don't think anyone thinks COVID-19 has been a positive stressful event, but whether it affects you as tolerable stress or toxic stress really has to do with how you are dealing with the current pandemic and what you have around you in supportive relationships.

Dr. Eric Ball: Let's now talk about how we could protect ourselves and our patients during the stress and adversity of COVID-19. As a primary care pediatrician, I learned a lot from taking my ACEs Aware training. I took my training in 2019 thinking it would be applicable only to patients who were suffering from high levels

of childhood adversity and children who had high ACEs screening scores. But one thing I learned quickly during the COVID-19 pandemic, is that the lessons I learned from my ACEs Aware training can be directly applied to myself and my patients and families who are suffering adversity due to the COVID 19 pandemic. The resiliency factors that we are teaching our families at this point are exactly the same as the ones that we use for children who are suffering high levels of childhood adversity.

Dr. Eric Ball: So let's go through them quickly. The Surgeon General of California calls these "stress busters" that we can use to mitigate high levels of childhood adversity.

Dr. Eric Ball: So number one is to maintain supportive relationship. This is done sometimes easier during the COVID-19 pandemic because we're all stuck at home with our families, but that's assuming you are with a loving family who provides that supportive relationship. For those children or other people who are not in a safe or secure family, they can look for the supportive relationships other places. We, as practitioners, can serve as those supportive relationships. And during the COVID-19 pandemic, I have certainly created some bonds with some of my patients who just need someone to talk to during these difficult times. I think it's important that you encourage your families to reach out to mentors, friends, and family members by video chat or other mechanisms, and to reach out to community or faith-based organizations.

Dr. Eric Ball: During this time, it's extremely important that they engage in daily exercise. Our goal is at least 60 minutes a day of exercise. And although this is harder with gyms and sports being closed down, simply going for a walk around the block or getting outside is more than enough to keep yourself in good shape, both mentally, and physically.

Dr. Eric Ball: We always talk about high-quality sleep, but it's even more important during these difficult times. Our goal is for kids to get an adequate amount of sleep every day, based on how old they are. It's important that they maintain some semblance of a sleep routine and go to bed and wake up at a similar time each day, regardless of whether the children are in-person

school or not. We find that some of our kids are staying up very late now because they are not in school and don't have to wake up early to go to class. And we find that this is causing a detrimental impact on their mental and physical health. One thing we always talk about with our families is having a digital curfew, turning off electronics before they go to bed to allow their brain to settle down and allow them to go to sleep more easily.

Dr. Eric Ball: Another thing that's very important during the COVID 19 pandemic is to make sure that people have balanced nutrition. It's extremely important to have regular meal times and we encourage families to eat together always, but especially during these difficult times. It's also important that we try to have children limit snacking, especially on things that have refined carbohydrates, have high fat, or high sugar levels.

Dr. Eric Ball: It's also very important right now for people to engage in mental health care, if necessary. I have referred a lot of my patients to therapy during the COVID-19 pandemic, more than I ever have in the past, and I find that a trusting relationship with a mental health professional is valuable for many of my families to get through these difficult times.

Dr. Eric Ball: And finally go outside. We're all trapped inside for our own safety, but getting outside into nature is really critical and it's safe to do as long as you continue socially distancing from other people. Take a walk, take a hike, get out of your house. It really is good for your mental health.

Dr. Eric Ball: I want to talk really briefly about how this has affected one of my patients directly. I recently did a well-child check with a 13-year-old patient who I've known for his entire life. He has had no mental health problems in the past and really has a very privileged and easy upbringing. I had no expectations for this visit. I thought it would be a routine easy well-child check. We gave him our mental health screening tool that we do for all of our adolescent patients. I was very surprised to see the results showed that he had a depression screening score of 13, which puts him in the moderate depression stage.

Dr. Eric Ball: When I talked to the patient and his mother, he talked about how he was feeling down because the sports that he previously engaged in have been canceled and he no longer was playing soccer or baseball. He was spending most of his time indoors playing video games and hanging with himself in his bedroom. He's been distance learning since late March, so almost a year now. He's in seventh grade, and this is the first year he's been in middle school. He has found that transition to middle school quite difficult. He was very sad that he missed his elementary school graduation, and mom thought he might have ADHD because he was previously a straight A student and now is getting Bs and Cs.

Dr. Eric Ball: Interestingly, when we did his ACEs screening, his ACE score was zero. We had to discuss with this patient and his parents, how the COVID-19 pandemic was affecting him. Clearly something had changed over the past year and he was suffering from the mitigation efforts due to the pandemic. We talked about the resiliency factors and I gave him, like I do for many patients, the "Surgeon General's Playbook for Stress Relief During COVID-19."

Dr. Eric Ball: We talked about sleep hygiene. He was sleeping very poorly and staying up till 1:00 or 2:00 in the morning playing video games. We discussed the importance of exercise. This was a child who was previously getting an hour or two of exercise every day, and now getting almost no exercise. We downloaded a meditation app on his phone and I showed him how to use it and we actually spent a few minutes meditating in my office. And then I referred him to a local child psychologist for therapy.

Dr. Eric Ball: Now this is a patient that had an ACE score of zero and a patient who normally I would not have had to talk about this, but because of the COVID-19 pandemic, I'm asking the questions about resiliency for every one of my patients.

Dr. Eric Ball: Every patient I am seeing is being affected by COVID-19 pandemic, including myself, including my colleagues. I think it's important to remember that COVID-19 and the associated public health mitigation efforts are the most traumatic moments of many of these families lives.

Dr. Eric Ball: I'm calling this a collective societal trauma, even for those families who have ACEs score of zero. This has been an extremely traumatic event and the resiliency factors and the stress busting strategies that we learned during ACEs Aware training are directly applicable to this pandemic. It's important and critical that you discuss these strategies with all of your patients and all of your families, regardless of their ACEs score.

Dr. Eric Ball: I think it's important to remember, to close, that we can reduce the short and long-term effects of the COVID-19 pandemic and that the ACEs Aware initiative and the training that we all take with ACEs Aware can certainly help us to all learn those techniques and make us better practitioners and improve the lives of our families.

Dr. Eric Ball: Thank you so much for your time. And I am pleased to announce our next speaker, Dr. Martina Jelley.

Dr. Martina Jelley: Hi everyone. Thank you for having me. Honored to follow after Dr. Bhushan and Dr. Ball, and I'm going teach you some more about caring for adults with ACEs, especially during pandemic.

Dr. Martina Jelley: Let me tell you a little bit about the classical training that I had in internal medicine. It didn't include very much about childhood events. The ACE study was published in 1998, which actually was after my training. Since that time, there's been exponential growth in the interest of ACEs and trauma-informed care training and lots of publications, mostly in the pediatric world. There has been slow uptake by adult caregivers. The Annals of Internal Medicine, for instance, has yet to publish any articles on ACEs. That's the largest internal medicine publication. The largest internal medicine group, the American College of Physicians has yet to have anything in its annual meeting about ACEs. And there's no formal curriculum about ACEs in most medical schools, although fortunately, that is changing.

Dr. Martina Jelley: So, let me tell you a little bit about how I got to learn about ACEs, understand ACEs, and started to teach it. One of our clinic patients, in about 2007, was someone that was giving our residents a lot of problems. And right before I met this patient, I had been to a talk by Dr. Vincent Felitti. Dr. Felitti, as you may know, was the lead author on the ACE study. He'd come to

Tulsa to give a talk about his research. I was invited to hear this talk, and I was very much impacted by what he had to say. I started to think, could there be patients that I have seen that are like the patients that he saw, thinking there might be a few, not thinking there would be very many.

Dr. Martina Jelley: My patient was a 34-year-old female. She was morbidly obese. She was a smoker. She was already on oxygen due to her lung disease, and she had poorly controlled diabetes. I thought, I wonder if this patient might be one of those that Dr. Felitti had talked about. So, I dug a little bit deeper into her chart and I found a social history.

Dr. Martina Jelley: The social history was taken by the psychiatry clinic when she had been there a couple of times, and verbatim from her chart, it said she was married and had three children, she was molested at age 8, raped at 13, and grew up in a home with alcoholism, instability, and physical abuse. I thought, "Wow, I never knew this about this patient." I hadn't known her for that long, but I hadn't asked. I thought, "I wonder if there are any other of these patients." Well, over the next several years, I worked with a group at OU to try to find out what was really going on with our patients.

Dr. Martina Jelley: We did a study where we ask about ACEs along with other social determinants of health for many of our adult patients on our internal medicine and family medicine clinics. We found that 37% of our patients had four or more ACEs, that compared to the original Dr. Felitti-Anda study of 12.5%. We knew we were dealing with a very traumatized population, but what are we going to do about that? Many times when you tell an adult physician about this, they say, "Well, what can we do? It happened in the past. Give us an ACEs pill or something that will fix it." But that doesn't really exist. So, we went back to Dr. Felitti's words and learned that time does not heal some of the adverse experiences that we've found so common in the childhoods of large population of middle-aged, middle-class Americans.

Dr. Martina Jelley: We were seeing that with our population with their chronic disease, lots of mental health issues, a lot of frustrating patients to the clinician. We learned that Dr. Felitti's approach of asking,

listening, and accepting a patient for who they are is a powerful form of doing that confers great relief to patients. Finding that you don't have to come up with a solution to all of their problems, that just listening, helping the patient connect what had happened to them in their childhood to what was going on in their adult lives and their health, their current health issues is very therapeutic.

Dr. Martina Jelley: One other thing that we learned is trying to help explain these things to patients and help patients understand. We've found that the use of metaphors or explanation tools could be very helpful. So, we've been using metaphors such as an overloaded pickup truck or an overload backpack. The way you can explain this to a patient is to use the explanation of, “say you've got a backpack and all the difficult things that have happened to you starting in childhood and throughout your life become heavy bricks in that backpack. As you go along and you add more and more bricks, it becomes harder and harder to go through life or to stay healthy." The good news about using a metaphor, such as this one, is that you can help patients in the therapeutic part of the discussion of saying, "We may be able to work together to find ways to remove some of those heavy bricks from your backpack and help you move through life a little bit better."

Dr. Martina Jelley: Another metaphor that we use is something called turning up the volume, especially people that have chronic pain. We help them understand the brain-body connection, and how even though they're definitely feeling pain, the pain may be turned up in their brain because of what they have gone through in their past. On the therapeutic side, we can talk to them about “let's work together to maybe find ways that we could help turn down the volume on your pain." These have been things that have been very helpful in our practice in caring for patients with ACEs.

Dr. Martina Jelley: Now, we've got the pandemic and you've heard about all of the health effects of that. COVID is certainly a significant stressor, and even more so potentially for patients that are already stressed out with their ongoing childhood trauma. There's not a lot of research out there yet about this, but there is this one study from a group here in Oklahoma that looked at

low-income pregnant women. They asked them about their health, their social and economic impacts, as well as perceived change in stress and well-being attributed to the pandemic, and they did this just last year after the pandemic got started. They controlled for demographics, and they found that those who reported more childhood adversity, also reported increased stress and poor mental health due to the pandemic.

Dr. Martina Jelley: They found that this effect was mainly mediated through loneliness, suggesting that ACEs-influenced pandemic related distress due to social isolation or those poor structural social relationships that many of patients with ACEs have. Now, whether that's really true for all patients with ACEs, we'll come to learn more about, but this is some preliminary research that I thought was interesting.

Dr. Martina Jelley: Let me tell you about a patient that we were seeing in the clinic not too long ago. This is a 29 year old woman. She had come to us and gained 20 pounds in the last three months as many people have through COVID. Her blood pressure, where it had been controlled, was not controlled despite her taking her medication and she was complaining of worsening insomnia. I've seen a lot of insomnia in the last year and may be related to COVID. So, if you look at this patient kind of overall, she had an ACE score of three, and I'd say possibly more. We use a conversational approach to screen for ACEs, and we know that she had at least three ACEs, possibly more. Her risks for worsening of her stress during COVID are that she was a single mother of two young children. She'd had a good job as a restaurant server, but had lost that due to COVID, as many people have.

Dr. Martina Jelley: She was currently under employed working part-time in the fast food industry, maybe related to some of her obesity issues. She had no family support because her main support had been her grandmother who had died recently of COVID. This was a very difficult case, but the woman did have some strengths that we tried to emphasize. She was partway through a college degree and had planned to complete it. She had a church family. She'd been unable to go to church recently due to COVID, but had stayed connected somewhat to her

church family. So, in looking at this patient, she certainly had toxic stress from her childhood that was exacerbated by the pandemic, and contributed to the multiple issues, including worsening hypertension, the weight gain, the insomnia. This is a patient who, having a high level of ongoing stress, the additional stress of the pandemic just really worsened her health.

Dr. Martina Jelley: We take a team care approach to this patient. Let's look at that. The clinician can educate the patient on ACEs and that brain-body connection, helping her understand how stress hormones can cause some of the symptoms that she's been having, how being stuck in fight or flight mode can certainly contribute to her insomnia and how the pandemic is another trauma. It's like another brick in her backpack, and that it's very normal to feel the way that she's feeling and that she's going through this with a lot of other people. We can emphasize the self-care, the different mindfulness exercise, nutrition, and sleep hygiene that you've already heard about.

Dr. Martina Jelley: We were able to connect her with a social worker in our clinic to help with their financial issues, childcare, and give her some options for mental health. She chose to work with our in-house counselor and we're fortunate enough to have integrated behavioral health in our clinic. We were able to do a warm handoff, meaning we brought our LCSW into the room with the patient as an introduction and then we have found that many of our patients will have much more success coming back if they've already met our in-house counselor. We did that. We also increased the number of visits that the patient had been having, more visits to assess progress to reinforce those stress busters, see how they're going, troubleshoot any problems the patient may be having with those. A continued discussion of the brain-body connection. This is not a one-time conversation. It's an ongoing conversation and helping the patient deepen their understanding of how their toxic stress can contribute to what's going on in their bodies and their health.

Dr. Martina Jelley: So how about a patient who doesn't have ACEs? This was a patient that I saw. She was one of my private patients. She was 52. She had an ACE score of zero, but her generalized anxiety score was 15, which is pretty high. She hadn't had anxiety to

any degree before the pandemic. She had been healthy. She'd had intermittent back pain due to some arthritis, but she came to me complaining of insomnia, headaches, some GI complaints, some weight loss due to not being able to eat because of stress-- not everybody gains weight. We did a diagnostic workup. We really didn't find a reason for her symptoms. Her risks for worsening during COVID were that she had an elderly mother in a nursing home, and she hadn't been able to visit that mother and was worried about her, as many caregivers have been. She'd lost touch with some close friends and extended family, partly because of the pandemic, but she realized that she had actually lost touch with several of them before the pandemic because of her busy work schedule.

Dr. Martina Jelley: Her strengths were that she was well-educated. She was fully employed. She has a supportive staff, but as I said before, her anxiety was really high. So what do you do in this case? Well, we have found that you can use that the ACEs Aware approach with a patient who doesn't have ACEs. So we can call this toxic stress. It's a different kind of toxic stress that may occur in childhood. But a prolonged stress response without supportive relationships, which was kind of what was going on in this case, can be considered toxic stress. So you can use similar explanation tools as the ACEs. For this woman, we could have said she's got an overloaded pickup truck, even through the years, all the stresses in her life have added a brick, a bale or whatever on the pickup truck. And it got to this year to 2020 and her pickup truck overloaded, and she's going to have to do something about it.

Dr. Martina Jelley: We talk about the brain-body connection and discuss the stress buster options that you've heard about. For this patient, she was very interested in working on her insomnia, she was interested in using the CBT-I app for that insomnia. She had been a regular yoga practitioner, but had stopped going because her yoga studio had closed, so we talked about using online options for that. We offered her counseling options and we really encouraged her to enhance her supportive relationships, those that she had lost touch with that she might re-engage some of those relationships to help her and possibly

help those of her friends who were also going through the same thing.

Dr. Martina Jelley: What are the key takeaways? An ACEs-informed approach should be used with all adult patients, especially those who you're seeing for chronic disease exacerbations, new unexplained symptoms, and mental health issues. The skills and the resources that are learned from an ACEs-informed approach can be used with patients affected by any kind of toxic stress, including a pandemic.

Dr. Martina Jelley: Our approach to asking, asking about trauma, asking about what's going on in patients' lives, listening, and accepting those as what may be really going on with the patient's health concerns. It's really a powerful form of doing, that can help a lot of your patients now and after the pandemic. Thank you.

Sam Mills: Thank you, Dr. Jelley, and thank you to Dr. Ball and Dr. Bhushan. We'll try and get through as many questions as we can today. Our first question for this group is from Nancy and she asks, "What are your suggestions for building resiliency during the pandemic?"

Dr. Eric Ball: That's a really good question. I think building resiliency during this pandemic is paramount amongst our patients. I think the first thing to do is to make sure you ask the right questions. I ask every single one of my patients during the pandemic about their sleep. I ask them all about exercise, their nutrition, their ability to see friends, or have supportive relationships with their family members or other community members. So, I think first ask the questions and then give them the appropriate responses based on what they're lacking and then praise them for what they're doing well.

Dr. Martina Jelley: Thank you, Nancy, for that question. We really use the approach of trying to look at their strengths, the strengths that they had before the pandemic. What kind of things did they feel that that helped them? What kind of relationships were helpful to them? What kind of activities really helped them feel better? And many times, those are things that they haven't been doing throughout the pandemic. So, if they can even add in a phone call to a friend, start an exercise program they had stopped because of the pandemic.

Dr. Martina Jelley: Resiliency is something that has a lot of different definitions and so it's different for a lot of people, but really we try not to focus on the negative. I think with resiliency, we try to find what people have found that has been helpful to them in the past and just reinvigorate that and help them remember what has been helpful to them because they're adults. Most adults can tell you some things that they're good at, or some things that they have found helpful in their life.

Dr. Martina Jelley: They may not think that those can be helpful to them now, but I think the clinician's approach to that is to help them understand how that might be able to be re-introduced into their life right now. But every patient is different, so you really have to try different approaches.

Sam Mills: Thank you for those responses. Next up is a question from Kellie Ann. How do you speak to young children, ages three to seven, about the impact of COVID on their daily lives? Let's go to Dr. Ball.

Dr. Eric Ball: As a pediatrician these are the majority of my patients. These are young kids, and these children are generally old enough to understand what's going on. They know there's a bad virus out there that's causing them to have to stay home from school. We have frank, honest conversations with these kids. I'm a big fan of being very honest with children and don't lie to them, but I don't give them more information than need to know. I talk to them a lot about the advantages that a lot of them have during this pandemic. We talk about how they have a loving, supporting family.

Dr. Eric Ball: We talk often about those who are able to do school virtually that they can still see their friends, even if it's only by video chat. And then we talk about other things that they can do safely out in the world. They don't have to be locked up in their house. We talk about going out for walks, engaging with their peers, their classmates, and their family. We're honest with them, we support them, and we are active in trying to get them to do things that will keep them both mentally and physically happy during this time.

Sam Mills: Thanks. Our next question, how do you navigate doing ACE screening or teaching resilience in a world where some

patients don't have access to video conferencing, and you have to have conversations via phone call instead? Dr. Ball?

Dr. Eric Ball: It's been really difficult to get in touch with our patients during these times. We have a lot of patients who are reluctant to come in the office because of the COVID-19 pandemic. And then some don't have the technical wherewithal to be able to do video calls or other means of contacting us. We try to reach out to our patients best we can and try to initiate these conversations. We have lists of patients who are at high risk, either from a medical or social reason, and we will actively reach out to them to try to get them on the phone or in the office so we can have conversations about how they're doing during the pandemic.

Sam Mills: Thank you. Our next question is from Hilma. How do you convince patients and families to be screened for ACEs? I have a couple of families who are not convinced about doing the screen.

Dr. Eric Ball: Yeah, that's a good question. We've had the same reaction with some families. I've actually been pleasantly surprised though that the vast majority of our families have been willing and do the screens in our office. We have a little script that our medical assistants give our patients before they do the screen and I think that explains a lot of the rationale behind it. And I think once you teach families that childhood adversity can be linked to both mental and physical problems and ACE associated health conditions down the road, I think a lot of them are very willing to answer the questions to benefit their child's health in the end.

Sam Mills: Thank you. This question is for Dr. Jelley and Dr. Ball. How have you incorporated ACE screening into your routine workflow?

Dr. Martina Jelley: ACEs screening is different for every clinician in every clinic. At our clinic right now, we have not done across the board screening of every single person that walks into the clinic. We have taken more of a case finding approach, meaning so many of our patients who we know are struggling with either chronic disease and mental health issues or other issues, we feel that there is likely something going on with them. We have

a conversation. And so the ACE screening is actually done in more of a conversational manner of asking people.

Dr. Martina Jelley: Many people have had difficult things happen to them in their childhood and it is amazing how many people want to tell you lots of details, and a lot of people don't want to give you lots of details, but just tell you, "I had a really bad childhood."

Dr. Martina Jelley: You may not need to know any more than that. Some people go with numbers, an ACE score of four, an ACE score of seven. We have found that some people with an ACE score of one or two can be very impacted by that depending on what the ACE is.

Dr. Martina Jelley: We really want to ask patients about the impact of those traumas on their lives, and so it's really just part of the conversation. We almost never do it with the first visit with a patient. The very few times I have done that has been unique situations, but many times it's after the second, third, fourth visit when there's a doctor-patient relationship and you feel more comfortable helping the patient understand what might be the underlying origins of what's going on in their life.

Dr. Martina Jelley: We're going to try different things as time goes on. We may start using more of across the board screening. But for right now, that's what we're doing and it seems to have worked pretty well. I will tell you we train all of our medical students and residents in this technique and using a simulation at our simulation center. Our residents get practice in doing this before they try it out in the clinic, and it seems to be working pretty well.

Dr. Eric Ball: That's a really good question. It's actually evolving. My practice is a large pediatric practice, and we are part of a consortium of pediatric groups who are working with the ACEs Aware initiative on a local grant to increase our workflow efficiency with regard to ACE screening. Our patients in pediatrics are very used to screening. We do screening for depression. We do screenings for autism. We do screenings for developmental issues. And so, getting one more screen isn't that big of a deal for our office or for our patients. We're incorporating ACE screening into our workflow by screening everyone at their annual checkups. We started only doing Medi-Cal patients,

but we're now screening all of our patients each year. We basically have the medical assistants when they're rooming the family give the patients the screen. And we have a little script that they read to them about why we're doing the screen. We've had very little pushback through this. I think it's been very effective. It really doesn't interfere with the workflow. And by the time I get into the room, the ACE screen is completed, and we can discuss the results together.

Sam Mills: And now for our last question. Are you seeing more patients with ACE-associated health conditions or anything related to toxic stress over the course of the pandemic?

Dr. Martina Jelley: Thank you. We have definitely seen an increase in stress-related disease during the pandemic. I mentioned earlier about insomnia. I have never seen so much insomnia in my life. What I found really interesting is that quite a few patients don't relate the insomnia to the pandemic. They have not made that connection in their brain. But in talking to them and asking them about their lives and asking them about the stress and the things that have changed for them during the pandemic, it's pretty obvious why they're having the insomnia.

Dr. Martina Jelley: So we see a lot of insomnia. We've seen increased rates of out of control blood pressure, certainly anxiety disorders, some additional depression than what we've seen in the past. So just anything that may be related to stress. The one other thing I'll mention that I have seen more of that I talked about in my second patient was the GI complaints or acid reflux, abdominal pain, diarrhea, constipation. As many of you probably know, the GI tract has as many neurons or more than the brain does and is thought of as kind of the second brain.

Dr. Martina Jelley: And we have really seen a lot of the GI complaints. So yeah, we're seeing a lot of stress. I think it's gotten maybe slightly better in the last month or so. I think as people see the light at the end of the tunnel, more of my patients, especially the older ones, have gotten the vaccine. And so, the stress levels are maybe slightly lower, but we're still seeing a lot of it.

Sam Mills: That officially wraps up our Q and A. Thank you to our speakers and to audience members who submitted questions in advance. As we start to wrap up today, I want to highlight the

training we've heard a lot about and encourage attendees to take the free Becoming ACEs Aware training that covers the science of ACEs and toxic stress, how to screen for ACEs, and how to implement trauma informed care.

Sam Mills: We'd also like to encourage Medi-Cal providers to submit their attestation after completing the training and to sign up and be part of the ACEs Aware Provider Directory.

Sam Mills: More information, links to our training site, attestation form, and the provider directory are all available at acesaware.org.

Sam Mills: As a reminder, our resource page on our website covers a wide range of topics, including screening and clinical response, resilience building interventions, and much more. We'll continue using your feedback to inform and plan future webinar topics so please be sure to complete the webinar evaluation you'll receive later today in your email inbox.

Sam Mills: As we end today's webinar, I want to thank our incredible speakers for generously sharing their expertise, time and experience with us. I also want to thank all of you for attending and for providing great feedback that helps to generate the content for these webinars. A recording of this webinar will be available and emailed to all attendees and posted to acesaware.org later today. Please be sure to share with any colleagues or others in your network who may be interested. Thank you again and take good care.