

LISTENING TO BLACK CALIFORNIANS:

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Good Health

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Adverse Childhood Experiences and Toxic Stress: What Can We as Medical Providers Do?

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All of us have the potential for improved health and well-being, yet how many of our patients are presenting with anxiety, depression, obesity, diabetes, and other chronic diseases? With the COVID pandemic, increasing cyber-bullying and isolation, gun violence, war, and spotlights on long-standing health inequities and social injustices, we are witnessing increasing stress leading to mental illness and chronic medical conditions in our patients, communities, colleagues, and ourselves. Stress is on all our minds, but not routinely part of our medical training nor our assessment and intervention strategies. For example, when a patient with an asthma exacerbation presents in our clinic, how often do we ask them if anything scary, upsetting, or stressful happened to them? Yet, early life adversity and current stressors have been linked to asthma as well as more than 40 other health conditions,¹⁻⁷ suggesting the need for medical providers to ask about and address our patients' life experiences and resulting stress biology. While a large body of literature is linking adversity, stress physiology, and poor mental and physical health outcomes, there is also a growing body of stress science pointing us toward healing strategies, health, and wellness. We as medical providers can connect with our patients, uplift their strengths and innate resilience, provide healing tools and strategies to lessen their stress load, and treat stress physiology to improve their health and well-being. We can start today.

Adverse Childhood Experiences, Childhood Adversity, and Stress Biology

The landmark Adverse Childhood Experiences (ACEs) study and a large body of subsequent research links childhood adversity to lifelong mental and physical health outcomes.¹⁻⁷ Adverse Childhood Experiences - ten categories of childhood adversity, including physical, emotional, or sexual abuse, physical or emotional neglect, caregiver mental illness, substance misuse, divorce or incarceration, and inter-partner violence - are common and, in the absence of support, are associated in a dose-response manner with more than 40 health conditions, including heart disease, obesity, diabetes, depression, anxiety, suicide, ADHD, asthma, alcohol and drug use, and learning problems.¹⁻⁷ These are conditions physician assistants are seeing every day in clinical practice in pediatric or adult settings. Emerging science points to stress biology as an underlying mechanism by which stressful life experiences "get under the skin."^{5,6,8}

The stress response, often termed "fight-flight-or-freeze," involves multiple brain regions and neural connections as well as

the endocrine, metabolic, and immune systems.^{5,8-12} Two key systems are the Sympathetic Nervous System (SNS) and the Hypothalamic-Pituitary-Adrenal (HPA) Axis. The SNS and HPA axis work together to (1) increase circulating glucose levels as well as heart rate and blood pressure in order to get energy to the muscles, and (2) direct the immune response.^{5,9,13} While less studied, there is a suggestion that if we feel hopeless or that we cannot escape the threat, we revert to a collapsed or freeze state.¹⁴

Toxic Stress

The fight, flight, or freeze stress responses help us through tough situations and can be lifesaving. However, what if significantly stressful events happen in childhood when the brain is rapidly developing and laying down neural connections? At some point, our brains and bodies become practiced at detecting and reacting to threats, even when the original stressor may no longer be around. What started as adaptive and life-saving may become "maladaptive, toxic, and health harming over time."¹⁵ The prolonged, excessive activation of the stress response system may disrupt healthy brain development and endocrine, metabolic, and immune function leading to increased lifelong risk for mental and physical health.^{4-6,10,16} In addition to ACEs, other stressors including racism, discrimination, poverty, and bereavement have also been found to be associated with stress physiology and risk for poor health and well-being.^{5,10}

The flight, fight, freeze stress responses are often misunderstood, especially in the setting of ACEs and toxic stress, because they can manifest as anger, aggression, hypo- or hyperarousal, impulsivity, withdrawal, avoidance, neglect, shutdown, numbing, food cravings, addictions, "looking for love in all the wrong places," fear of connection, struggles with attachment, and more. From a health care provider perspective, these responses may get labeled and treated as ADHD, anxiety, depression, obesity, headaches, chronic abdominal pain, risky sexual behaviors, substance abuse, or the provider may simply label the individuals as non-compliant or difficult patients. However, understanding stress biology and recognizing that life experiences impact our biology opens a range of opportunities to connect with our patients in a more meaningful way and provide strengths-based, healing-centered care.

Some stress is good

The Center on the Developing Child developed a framework to describe positive, tolerable, and toxic stress. Positive stress



involves brief activation of the stress response and mild elevations in stress hormone levels, such as before a big test or a work presentation. Tolerable stress involves a more stress-fueled event with more significant physiologic changes, but the stress response is buffered by supportive relationships.¹⁷ Thus, promoting safe, supportive, and nurturing relationships and environments has the potential to prevent stress from becoming toxic, and is foundational for healing.¹⁵

What you can do now

The good news is that we, as clinicians, already have science-based tools, strategies, interventions, and community resources that can address toxic stress in our clinical practice and help our patients heal and thrive. Here are some things you can do:

1. Get trained

Take the “Becoming ACEs Aware” online training to learn more about ACEs, toxic stress, and how to develop a trauma-informed clinical response: <https://training.acesaware.org/>. Since December 2019, more than 26,000 people have completed the “Becoming ACEs Aware” training. ACEs Aware also has recorded webinars, an implementation guide, and other resources to support your learning available at <https://www.acesaware.org/>.

2. Screen both adults and children for childhood adversity

The California ACEs Aware Initiative recommends universal ACE screening (once for adults and routinely for children). A complete ACE screen involves the triad of (1) adversity (ACE score), (2) clinical manifestations of toxic stress (ACE-Associated Health Conditions, or AAHCs), and (3) protective factors.⁵ Together and in the context of a trauma-informed clinical practice, ACE screening can help evaluate the clinical risk for toxic stress and guide effective responses. Importantly, ACE screening can support meaningful conversations about how life experiences can impact our health and well-being on a biological level. Studies in a variety of primary care settings, including prenatal care, pediatrics, family medicine, and adult primary care, have shown that ACE screening is feasible, does not significantly increase visit times, and may improve referrals to needed services.^{18–23} ACEs Aware offers several educational webinars, resources, guides, and tools to support health care teams in all stages of their ACE screening journey at <https://www.acesaware.org/>. Since January 2020, Medi-Cal clinicians have conducted more than one million ACE screens.

3. Provide Trauma-Informed, Healing-Centered Care

Screening should always be done in the context of a trauma-informed, healing-centered model of care that honors people’s and communities’ strengths and culture. This includes creating safety, building trustworthiness and transparency, providing peer support, inspiring collaboration and mutuality, empowering through voice and choice, and honoring cultural, historical, and gender issues.^{24–26} There are several organizations in California that provide education on trauma-informed care, motivational interviewing, and strengths-based approaches to help provide a safe, supportive, and healing clinic environment: (e.g., Trauma Transformed - <https://traumatransformed.org/>, UCLA Prevention Center of Excellence - <https://www.wellbeing4la.org/>, and UCSF TRIADS program - <https://cthc.ucsf.edu/triads/>).

4. Address stressors

Screening for ACEs and other life stressors can inspire meaningful patient-provider conversations, provide an opportunity to address current stressors, and potentially prevent future adversity from occurring. Anticipatory guidance, interventions, and referrals can start with addressing any immediate safety concerns and linking patients to needed services, such as domestic violence shelters, family justice centers, food resources, housing support, support groups, and crisis lines. We can provide emotional and informational support, connect our patients to services, and be a healthy social influence to lessen their stress load and improve overall health and well-being.²⁵



5. Treat toxic stress

While we don’t yet have a lab test or biomarker panel for toxic stress, we can consider a patient’s ACE score, protective factors, and current symptoms or health conditions to help a clinician evaluate their patient’s risk for toxic stress

at any age. This provides an additional opportunity to consider strategies, interventions, and community resources that can address underlying toxic stress physiology and potential disruptions in neurologic, endocrine, metabolic, and immune function. While the science of toxic stress is emerging, there are a number of safe, evidence-informed strategies and interventions that can be implemented to support long-term healing for your pediatric and adult patients.^{5, 8, 26–28} Drawing from behavioral and mental health, integrative medicine, lifestyle medicine, neuroscience, and trauma experts, ACEs Aware and the Center for Youth Wellness created a framework for

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patient education and interventions to support healing. The following seven “stress busters” have been shown to improve neuroendocrine, metabolic, and immune function, and thus have the potential to treat toxic stress: supportive relationships, quality sleep, balanced nutrition, physical activity, practicing mindfulness, experiencing nature, and trauma-specific behavioral and mental health interventions.^{5,27} For more information on the “stress busters” and suggestions for how to implement them in clinical practice, please watch this video: <https://www.acesaware.org/events/the-science-of-aces-and-toxic-stress-part-3/>. You can also use the ACEs Aware Self-Care Tool for Adults and for Children as a way to start “stress-buster” conversations with your patients: <https://www.acesaware.org/wp-content/uploads/2019/12/Self-Care-Tool-for-Adults.pdf> and <https://www.acesaware.org/wp-content/uploads/2019/12/Self-Care-Tool-for-Pediatrics.pdf>.

6. **Build your networks of care (we can do this together)**

There are many local, state, and national organizations providing trauma-informed services and supporting

children and adults through tough times. Identify organizations and partners in your community and tap into existing networks of care. ACEs Aware offers a Trauma-Informed Network of Care Roadmap as well as a How-to-Guide that provide steps and tools to build a network of care for your clinic: <https://www.acesaware.org/events-the-trauma-informed-network-of-care-roadmap-a-guide-for-strengthening-community-relationships/>.

Conclusion

Knowing how ACEs and toxic stress can impact both child and adult behavior as well as mental and physical health outcomes encourages all of us to provide trauma-informed, healing-centered care and shift the narrative from “What is wrong with you?” to “What happened to you?” and “What is healing for you?”^{28,29} Together, working with our community partners, we can prevent and buffer early life adversity, support our patients to lessen their stress load, and address toxic stress biology to improve our patients’ health and well-being across their lifespan. It is never too late to heal. ♦

References: <https://bit.ly/3WCYyV>

CAPACareers Expo 2022 Saturday, October 8, 2022

CAPA held its inaugural CAPACareers Expo on Saturday, October 8 which was attended by over 165 PA students and licensed PAs. The Expo offered attendees an opportunity to explore the latest employment opportunities, schedule mock interviews with practicing PAs, and receive complimentary professional headshot photos. The exhibit hall was available throughout the Expo for attendees to network with representatives eager to recruit and work with PAs.

