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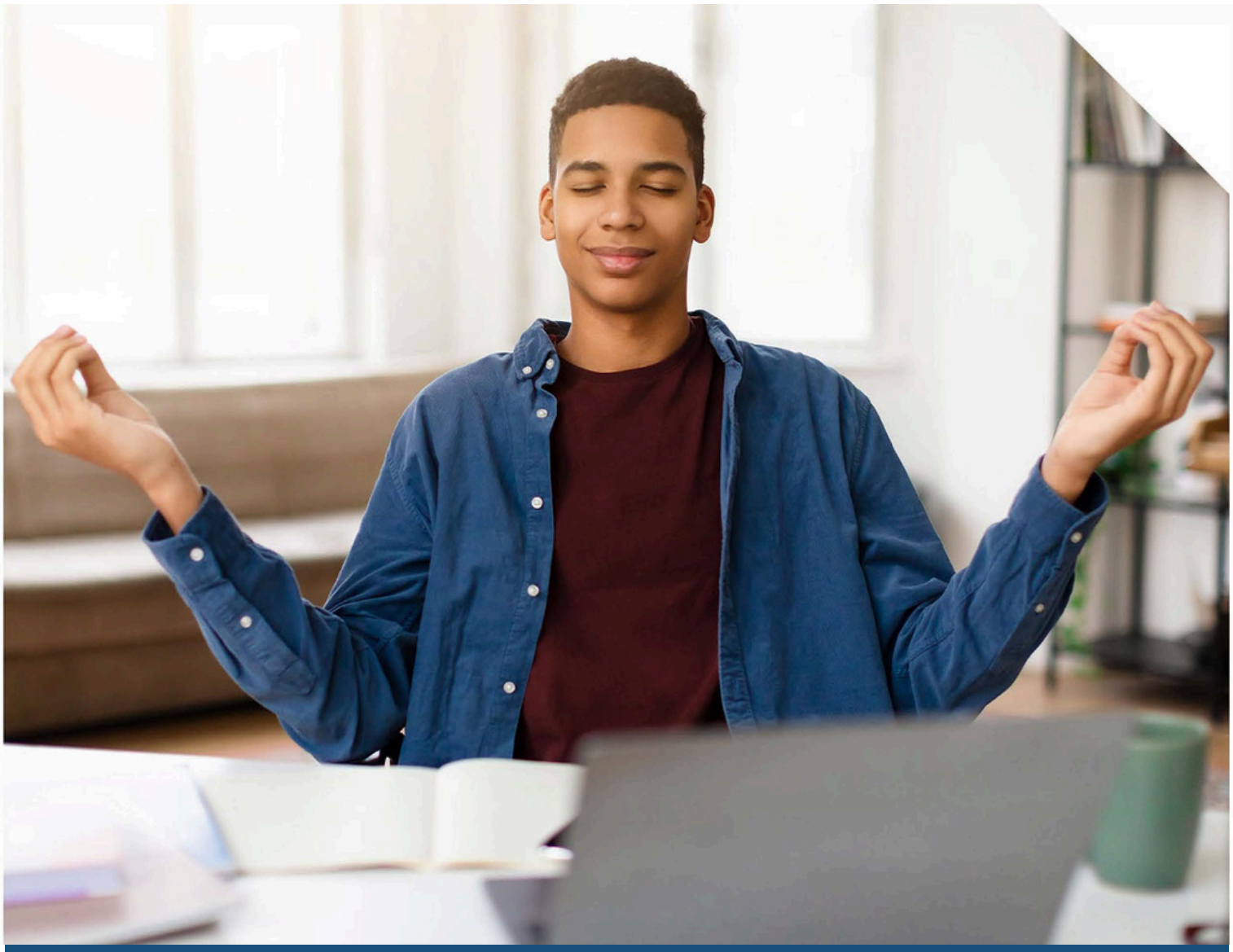

2025

ACE Screening as a Tool for Improving Health Access and Outcomes for Children and Youth in California: Addressing Youth Depression and Anxiety

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Executive Summary

California launched ACEs Aware in 2019 to support training and screening activities related to identifying and responding to adverse childhood experiences (ACEs). Uptake has been steady, with over 20,000 Medi-Cal providers certified to bill for screening activities and more than 1.5 million children, youth, and young adults ages 0 to 20 enrolled in Medi-Cal screened for ACEs.[1]

In addition to in-clinic response activities provided by clinical teams at the time of ACE screening, patients with identified risk for toxic stress may be referred to other clinicians or community programs to help address unmet needs. As one example of a program designed to address unmet needs for children identified through ACE screening, the Los Angeles County Department of Health Services (LA DHS) partnered with Insight LA to implement a virtual mindfulness meditation program within the Strong, Healthy, and Resilient Kids (SHARK) clinic. The SHARK clinic is a pediatric specialty clinic supporting children with complex medical, developmental, and behavioral health needs, particularly those with high ACE scores. The clinic acts as a central clinical Hub for LA DHS' Trauma-Informed Network of Care group of health, education, and community service organizations focused on connecting patients and families to resources improve health and buffer toxic stress.

This brief highlights findings from the implementation of a six-week mindfulness meditation intervention designed to address anxiety, depression, and physical symptoms associated with toxic stress among a diverse group of children and adolescents with a history of ACEs. The program had high enrollment rates, and participants experienced significant, sustained improvements in anxiety and depression scores and a significant reduction in physical symptoms associated with toxic stress.

Key Takeaways:

- ACE screening can be an effective starting point for identifying risk of toxic stress and initiating referrals to services that support the mitigation of stress-related mental and physical health symptoms.
- Mindfulness meditation is one example of an evidence-based intervention to mitigate the effects of toxic stress – including anxiety, depression, and physical symptoms associated with toxic stress.
- Opportunities exist to support innovative programs designed to improve health outcomes for those at risk for toxic stress through enhanced partnerships between Managed Care Organizations (MCOs) and practice groups, and by leveraging newly funded programs under the California Advancing and Innovating Medi-Cal (CalAIM) initiative (in these instances, such as the community worker benefit, Enhanced Care Management, and non-specialty mental health services) to support better health outcomes for children and youth.

Recommendations:

1. MCOs should recognize that interventions like mindfulness meditation can support mitigation of toxic stress physiology and work with affiliated practices to improve the implementation of programs designed to address gaps in care for children and youth, support health equity across California's Medi-Cal population, and achieve the Bold Goals set forth by the California Department of Health Care Services.
2. MCOs should ensure that practice groups are trained on the impact of ACEs and toxic stress and support implementation of evidence-based strategies to mitigate the toxic stress response.
3. Policymakers should encourage MCOs to leverage existing CalAIM funded programs (e.g. ECM, doula services, specialty and non-specialty mental health, dyadic care, and community health worker services) more effectively, equitably, and efficiently by: (1) simplifying workflows for entry into services; (2) developing clear and achievable onboarding processes for personnel, including doulas, community health care workers, and social workers; and (3) ensuring timely and appropriate reimbursement for these services.

Suggested Citation: Figueroa-Phillips, L., Gasca, L., Thompson, N., Shekarchi, A., Liévano-Karim, L., Zucaya, I., & Thyne, S. (2025). *ACE Screening as a Tool for Improving Health Access and Outcomes for Children and Youth in California: Addressing Youth Anxiety and Depression*. ACEs-LA Network of Care; UCLA Pritzker Center for Strengthening Children and Families: Los Angeles, CA.

Background

The Strong, Healthy, and Resilient Kids (SHARK) program is a specialty and primary care clinic for children with complex medical and/or social needs. The program is operated by the Los Angeles County Department of Health Services (LA DHS), the nation's second largest public health system. Founded in 2020, the SHARK clinic is accessible to over 55,000 children and youth receiving primary care in LA DHS clinics. In 2020, the SHARK program helped form the ACEs-LA Network of Care, a group of clinicians, community navigators, and community-based organizations dedicated to expanding LA DHS ACE screening and response activities by bridging medical setting and community program resources.

Adverse Childhood Experiences (ACEs) are stressful or traumatic events experienced during childhood and adolescence that have a dose-response relationship with many biopsychosocial health consequences over the life course.[2] ACEs can involve direct and indirect exposure to violence and other environmental factors that may undermine a child's safety, stability, and development. Repeated exposure to adversity can trigger a toxic stress response, leading to higher rates of illness (i.e. ACE-associated Health Conditions), mental health conditions, and even premature death in childhood and throughout adulthood.[3-4] Some children face a higher risk than others,[5] and disparate experiences of adversity are often tied to historical, social, and economic conditions resulting from institutional and interpersonal discrimination, including racism.[6-7] ACE screening allows for a rapid assessment of cumulative adversity, which can inform service needs, and risk for toxic stress, even among asymptomatic patients.[8]

A prior investigation in LA DHS revealed that ACE screening resulted in more planned referrals to mental health clinicians, social workers, and community organizations, along with increased provision of anticipatory guidance.[9] Importantly, an existing body of research shows that referrals are only effective at addressing and reducing toxic stress when service availability and accessibility match patient needs.[10] Warm hand-offs and other forms of integrated care coordination between pediatric clinicians and community-based service providers have also been identified as facilitators of service uptake, persistence, and improved mental and behavioral health outcomes.[11-12]

Western adaptations of mindfulness meditation practices originating from Buddhist teachings and traditions were popularized in the 1970s to help participants cultivate conscious and non-conscious strategies for regulating emotional responses.[13] These interventions equip participants with coping skills to regulate the body's response to stress and calm the sympathetic nervous system.[14] Research on mindfulness meditation practices in both general populations and those with high trauma-exposure or toxic stress has demonstrated psychological and physiological benefits for individuals impacted by traumatic stress or ACEs.[15] In children and youth, mindfulness meditation interventions can alleviate mental, physical, and behavioral health symptoms to improve overall well-being.[16-17] Collectively, this body of research suggests that high-quality, structured mindfulness meditation instruction/interventions can help mitigate the negative effects of stress and trauma resulting from ACEs, leading to better outcomes and potentially reducing long-term poor health consequences.

Building on available evidence, this brief reviews the findings from a community partnership between the SHARK Clinic and Insight LA, providing a mindfulness meditation program to youth with ACEs.

Methods

LA DHS providers in SHARK implemented a mindfulness meditation program co-developed with Insight LA, a nonprofit organization providing accessible mindfulness training across Los Angeles (and one of several partnerships established by the ACEs-LA Network of Care). Participants included youth ages 11 to 20 years who had an ACE score of 4 or more or a score of 1-3 with associated symptoms identified by their primary healthcare provider.

The mindfulness program featured six virtually guided mindfulness meditation sessions led by two experienced instructors. Youth were placed in small groups of 10 or fewer based on language preference, and sessions were offered in English or Spanish. Among those who participated in the mindfulness meditation series, roughly half identified as female (50.8%), three-quarters were of Hispanic origin (78.0%), and a majority identified as heterosexual (84.7%). Additionally, almost one-third of participants (32.2%) reported a history of foster care placement and nearly one-quarter (23.7%) had experienced homelessness.[vii]

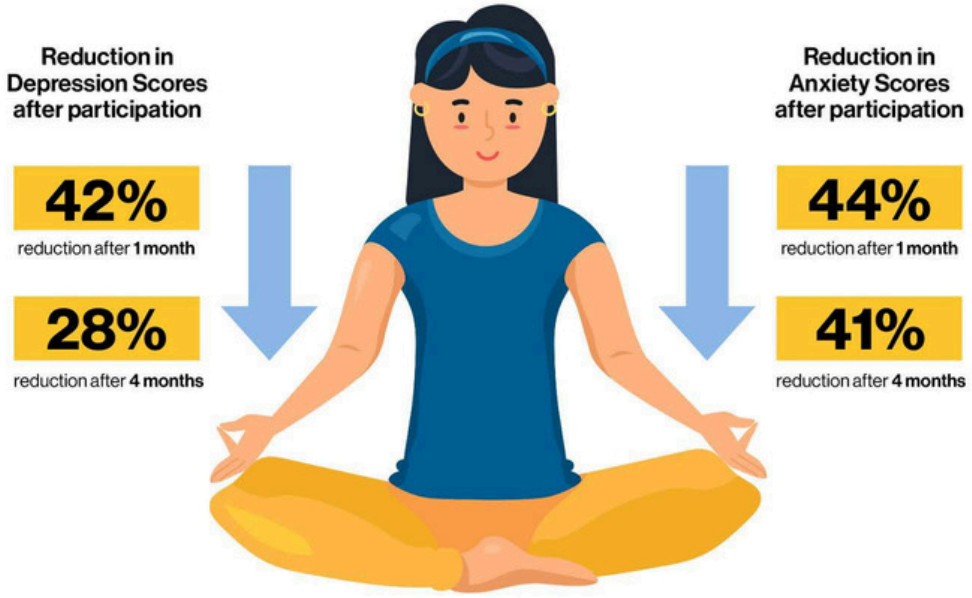
To assess the intervention's success, the SHARK team compared baseline self-reported data with two follow-up assessments conducted at one-month and four-months post-intervention. Participants self-reported anxiety and depression symptoms using the Generalized Anxiety Disorder Assessment [GAD-7] and the Patient Health Questionnaire-9 [PHQ-9], respectively, disclosed recent physical symptoms commonly associated with trauma, and reported overall well-being and functioning through the Brief Impairment Scale [BIS] and the Strength and Difficulties Questionnaire [SDQ]. These health measures were compared at follow-up to test for significant change using Wilcoxon signed-rank test.

Findings

- **Initial buy in and continued participation in the program was high.**
  Patients/caregivers were receptive to enrolling after receiving outreach in their native language from a clinician or community health care workers (CHW) who referenced the ACE screen and the association between ACEs and health outcomes.

- **After participating in the mindfulness meditation intervention, participants reported feeling less depressed and less anxious.**
  Anxiety and depression symptoms[ix] improved significantly with program participation, and these improvements were sustained over time, as seen in follow-up assessments at both one-month and four-months.

Figure 1. Mindfulness Meditation Sessions Were Linked to Reductions in Depression and Anxiety Symptoms for Children with High ACE Scores



- **The more mindfulness meditation sessions youth attended, the lower their depression and anxiety scores were.**
  All participants experienced reductions in depression and anxiety scores. The more sessions participants attended, the more their anxiety and depression symptoms decreased.[x]

- **Physical symptoms associated with toxic stress improved after participating in the mindfulness meditation program.**
  Significant reductions in sleep problems, chronic stomach pain, and the total number of symptoms were seen at the four-month follow-up.[xi]

Discussion

Implementation of a mindfulness meditation program is feasible and effective among youth with ACEs and high risk for toxic stress. Participation in the program led to reductions in depression, anxiety, sleep difficulty, and chronic pain, which is consistent with prior research.[18,19] It is particularly notable that this program was successful among a group of youth facing high levels of adversity, many of whom experienced housing instability and placement in foster care, both of which are known to exacerbate the effects of other adverse experiences and contribute to toxic stress.[20-24] ACE screening as a launch point for engagement in a clinic/community partnership exemplifies the strengths of using a trauma-informed network of care to fill unmet health care and social needs for children and youth at risk for poor health outcomes.

[ix] Anxiety (p<.0001) and depression (p=.002)
[x] Anxiety (p = 0.003) and depression (p = 0.007)
[xi] Sleep problems (p=.008); chronic stomach pain (p=.023); total number of symptoms (p<.0001)

Key Takeaways

1. **ACE screening can be an effective starting point for identifying risk of toxic stress and initiating referrals to services that support the mitigation of stress-related mental and physical health symptoms.**
Training on ACE screening and response activities helps clinicians to identify risk for toxic stress and implement trauma-informed approaches to care.[22] ACE screening can be an effective starting point for the implementation of appropriate clinical responses across California to improve the identification of individuals who would benefit from interventions that can reduce toxic stress and associated health conditions, such as depression and anxiety. As more children and youth at risk for toxic stress are identified, more opportunities will exist to engage them in newly funded CalAIM programs designed to address unmet needs.

2. **Mindfulness meditation is one example of an evidence-based intervention to mitigate the effects of toxic stress – including anxiety, depression, and physical symptoms associated with stress.**
Virtual interventions and/or those implemented in collaboration with pediatric clinic settings may align well with family needs, particularly for children and families enrolled in Medi-Cal Managed Care. With new funding streams through CalAIM, opportunities exist to fund programs such as mindfulness meditation. With support from health plans, communities and clinicians can partner to create effective and sustainably funded trauma-informed networks of care.

   Given the protective effects of mindfulness meditation interventions for children and youth facing high levels of adversity, creatively using non-specialty and specialty mental health benefits to cover stress-reducing interventions would advance California's Medi-Cal transformation goals by better addressing health-related social needs and enhancing access to preventive and personalized healthcare for populations facing disproportionate amounts of toxic stress. MCOs and practice groups may be able to leverage ongoing efforts to expand Title IV-E Prevention Services Clearinghouse [23] funding to identify evidence-based, cost-effective interventions that address and prevent the effects of toxic stress on children and their families.

3. **Opportunities exist to support innovative programs designed to improve health outcomes for those at risk for toxic stress through enhanced partnerships between Managed Care Organizations (MCOs) and practice groups by leveraging newly funded programs under the California Advancing and Innovating Medi-Cal (CalAIM) initiative (in these instances, such as the community worker benefit, Enhanced Care Management, and non-specialty mental health services) to support better health outcomes for children and youth.**
As more clinical practice groups implement screening and response activities and work to build more robust networks of care, MCOs have the opportunity to support these efforts. The MCO infrastructure is essential to the successful admininistration and monitoring of program implementation, including mental health services, ECM, CHWs, doulas, and dyadic services. Optimizing this infrastructure has the potential to support providers and community partners through improved implementation and reimbursement.

Recommendations

1. MCOs should **recognize that interventions like mindfulness meditation can support mitigation of toxic stress physiology**, and work with affiliated practice to improve the implementation of programs designed to address gaps in care for children and youth, support health equity across California's Medi-Cal population, and achieve the Bold Goals set forth by DHCS.
2. MCOs should ensure that practice groups are **trained on the impact of ACEs and toxic stress and support implementation of evidence-based strategies** to mitigate the toxic stress response.
3. Policymakers should encourage MCOs to **leverage existing CalAIM funded programs** (e.g. Enhanced Care Management, doula services, specialty and non-specialty mental health, dyadic care, and community health worker services) more effectively, equitably, and efficiently by: (1) simplifying workflows for entry into services; (2) developing clear and achievable onboarding processes for personnel, including doulas, community health care workers, and social workers; and (3) ensuring timely and appropriate reimbursement for these services.

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This work was funded by the UCLA/UCSF ACEs Aware Family Resilience Network and Olive View-UCLA Education and Research Institute.