Equity-Focused, Trauma-Informed Policy Can Mitigate COVID-19’s Risks to Children’s Behavioral Health

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Abstract
Both vulnerabilities to COVID-19 and childhood trauma have deep roots in health inequities. Children of color especially risk severe COVID-19 illness, with long-term effects that amplify existing health disparities, including trauma exposure. Similarly, children of color report more adverse childhood experiences (ACEs) than non-Hispanic White children. ACEs and other potentially traumatic events are associated with lifelong physical and psychological health problems. Policy must prioritize health equity (the absence of differences in health care access, quality, and outcomes based on ethnicity, race, and socioeconomic status). A trauma-informed approach emphasizes recovery and resilience. Principles of health equity can join with trauma-informed policy and practice for families and communities to help mitigate the effects of childhood trauma during the pandemic and beyond.

Keywords
trauma-informed approach, ACEs, public policy, COVID-19, health equity

Introduction
As of June 2021, more than four million children in the United States tested positive for Coronavirus Disease 2019 (COVID-19) since the onset of the pandemic, representing more than 14.0\% of total cumulative cases (American Academy of Pediatrics, 2021). Although children have largely been spared the serious physical health effects of COVID-19 in the short run, they are at risk of experiencing long-term behavioral health and wellness problems (Arantes de Araújo et al., 2020). Subpopulations of children may be at increased risk of severe illness if they contract the disease, including babies less than 1 year old and children with certain underlying conditions (e.g., asthma, heart disease; Centers for Disease Control and Prevention [CDC], 2020a).
Moreover, of the 121 COVID-19-associated deaths among children below the age of 21 years, 78% were children of color (i.e., 45% were Hispanic, 29% were Black, and 4% were non-Hispanic American Indian or Alaska Native; CDC, 2020c; Greenhalgh & Neighmond, 2020). This striking racial disparity is not surprising given that children of color are already at disproportionate risk of experiencing underlying conditions, placing them at greater risk of severe illness from COVID-19 (CDC, 2019b, 2020b).

Various degrees of exposure to COVID-19 stressors (e.g., sickness or death of a parent or loved one, parental job loss, isolation from friends, frightening news) may also heighten children’s risk of psychological distress, including traumatic stress reactions (Arantes de Araújo et al., 2020). Children’s trauma exposure includes adverse childhood experiences (ACEs; for example, parental mental illness or substance abuse, neglect), potentially traumatic events (PTEs; for example, death of a loved one, accidents), and other forms of adversity (e.g., racism, bullying; Substance Abuse and Mental Health Services Administration [SAMHSA], 2014).

The COVID-19 pandemic is a serious long-term adversity, compounded by other specific adversities and PTEs for children and adults alike (Bridgland et al., 2021). Just under half of children have experienced at least one ACE, and ACEs disproportionately burden children of color (Sacks & Murphey, 2018). In the United States, 61% of non-Hispanic Black children and 51% of Hispanic children have experienced at least one ACE compared with 40% of non-Hispanic White children (Sacks & Murphey, 2018). Thus, the pandemic is likely amplifying racial health disparities, including trauma exposure, that children of color already experience. However, trauma-informed practices and policies, increasingly developed and implemented over the past two decades, may help mitigate the potential adverse effects and disparities associated with childhood trauma during the fight against COVID-19 and beyond (SAMHSA, 2014).

Trauma-informed approaches may also help to reduce long-term economic costs associated with adversity. For example, a systematic review and meta-analysis estimated the annual health and financial costs accrued due to ACEs (Bellis et al., 2019). ACEs were attributed to about 30% of anxiety cases and 40% of depression cases in North America, with a combined annual cost of around US$82 billion (Bellis et al., 2019). In addition, more than a quarter of cases of respiratory disease in North America were linked to ACEs and had estimated costs of US$99 billion (Bellis et al., 2019). Of note, most ACE-attributable costs were linked to exposure to two or more ACEs (Bellis et al., 2019), which Black and Hispanic children are approximately 50% more likely to experience than are White children (Slopen et al., 2016). Thus, investing in trauma-informed approaches may help reduce the long-term economic costs of adversity and trauma, particularly for children of color, especially in light of growing concerns over the complex mental health impacts of COVID-19. As noted by Bellis et al. (2019), “even a modest 10% reduction in the prevalence of individuals with single or multiple ACEs . . . could be equivalent to annual savings of $105 billion” (p. e525).

As this review suggests, vulnerabilities to COVID-19 and childhood trauma are intrinsic to structural racism and other inequities. A trauma-informed approach has the potential to buffer young people against adversity and emphasizes the need to integrate principles of health equity with such an approach to maximize all young people’s potential for thriving. Recommendations for relevant reform follow.

The Current Context: Navigating a Syndemic

COVID-19’s disproportionate impacts on populations of color highlight long-standing inequities in social determinants of health (SDOH; Shim & Starks, 2021). SDOH are defined as “conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks” (Office of Disease Prevention and Health Promotion, 2021). SDOH account for 80% to 90% of modifiable contributors to health outcomes (Magnan, 2017).

Children and adults of color are more likely than their White counterparts to have limited access to health care, unstable housing, food insecurity, and higher rates of essential jobs in industries that place them at risk of adverse health outcomes associated with the pandemic (Shim & Starks, 2021). Indeed, Shim and Starks (2021) argue that the United States is navigating a syndemic (or synergistic epidemics) characterized by three intersecting conditions: COVID-19, structural racism, and mental health inequities. Structural racism refers to societies fostering discrimination through mutually reinforcing inequitable systems, which then embed inequities in policies and practices (Egede & Walker, 2020). These systems, for instance, may advantage White people and reduce the access of racial minority groups to high-quality health care, thus contributing to persistent adverse health outcomes in this population (Egede & Walker, 2020).

According to syndemic theory, diseases and social conditions interact to produce worse outcomes for specific populations (Shim & Starks, 2021). Given the intersection between COVID-19, structural racism, and mental health, now is a critical time to invest in policies and practices focused on promoting health equity and anti-racism (Shim & Starks, 2021). Health equity refers to the absence of disparities in disease states and comorbidities so that all people, no matter their ethnicity, race, geography, or socioeconomic circumstances, may realize their potential to thrive (World Health Organization, 2021). Integrating health equity and anti-racism principles with trauma-informed practices and policies may help reduce health disparities and improve outcomes for all children.
Adversity and Trauma During Childhood

Conducted during the 1990s, the CDC-Kaiser Permanente Adverse Childhood Experiences (ACES) Study is one of the largest and best-known studies of childhood adversity and its links to health status and behaviors later in life (CDC, 2021a). Survey data from more than 17,000 mostly White adult participants in Southern California reported their childhood experiences (e.g., child abuse, neglect, household challenges) and current health status and behaviors (CDC, 2021a). The study defined 10 ACEs according to three types of abuse (i.e., physical, emotional, and sexual), two types of neglect (i.e., physical and emotional), and five types of household dysfunction (i.e., mental illness, mother treated violently, divorce, substance use, and incarcerated relative; Felitti et al., 1998). ACEs are common; almost two thirds of participants reported at least one ACE, and more than one in five participants reported three or more ACEs (CDC, 2021a). And, on average, as the number of ACEs increased, so did the risk of lifetime adverse health outcomes, including depression, heart disease, and obesity (CDC, 2019a).

Although the original ACEs study was a landmark investigation, a growing consensus calls for looking beyond the 10 specific ACEs already identified and considering other PTEs and adversities (Amaya- et al., 2021). For instance, the National Child Traumatic Stress Network (NCTSN) collects data on child exposure to 20 types of trauma, including community violence, death/bereavement of a loved one, and war/terrorism/political violence (Amaya-Jackson et al., 2021). A traumatic event is a form of adversity that is a “frightening, dangerous, or violent event experienced or witnessed that is threatening to body or life integrity” (Amaya-Jackson et al., 2021, p. 2). These events can evoke negative emotions and reactions and overwhelm a child’s ability to cope. In comparison, the term adversity refers to a broader range of hardships or misfortunes that may require significant adaptations among children (e.g., poverty, drug exposure). Of note, adversities may not necessarily be life-threatening in the same way as a traumatic event and may not lead to traumatic stress; however, they often accompany traumatic events and may generate other adversities, such as separation from family. Many adversities can also contribute to negative mental health outcomes. Thus, children can experience a wide range of traumatic and adverse events, including but not limited to the original 10 ACEs, that can have lifelong deleterious health effects.

A key finding from research on childhood trauma and adversity is that although these experiences are relatively common, certain populations are more vulnerable than others to experiencing them based on their race, ethnicity, and socioeconomic status (SES; CDC, 2021a; Sacks & Murphey, 2018). One study with more than 84,000 U.S. children found that Black and Hispanic children were, on average, exposed to more adverse events than their White peers, and income disparities in exposure to adversity were considerably larger than racial and ethnic disparities (Slopen et al., 2016). Economic hardship, parental separation, and divorce are the most commonly reported forms of adversity, regardless of race, ethnicity, and SES (Sacks & Murphey, 2018). However, for Black, non-Hispanic children, the next most common adversity is parental incarceration, and for Hispanic children, it is exposure to a substance use problem and parental incarceration (Sacks & Murphey, 2018). Racial discrimination can also be traumatic for children of color and may amplify the negative effects of other stressors experienced by this population (Bernard et al., 2021). Moreover, racism-related encounters, such as racial discrimination, may be a distinct form of traumatic stress (i.e., racial trauma), given the strong connections between racism-related experiences and trauma-related symptoms, particularly in Black children and youth (Bernard et al., 2021).

Some children and their families can demonstrate resilience despite their exposure to adversity and trauma (Goldstein et al., 2020). Among more than 44,000 survey respondents who reported on children between the ages of 6 and 17 years, on average, as exposure to adversity increased, families were less likely to demonstrate resilience and children were less likely to thrive. However, family resilience reduced the negative effects of adversity on child thriving, with a greater reduction observed among Black, as compared with White, children (Goldstein et al., 2020). Moreover, children’s positive peer networks, caring mentors, access to high-quality education, and medical and mental health services all can be protective (CDC, 2021b). Adversity and trauma are the products of “modifiable and preventable disparities” (Goldstein et al., 2020, p. 8), and addressing them through a lens that is equity-focused and trauma-informed offers the greatest potential for optimizing the development of diverse children.

Trauma-Informed Approach

Trauma-informed approaches can help to reduce health risks among children exposed to adversity and promote thriving, especially relevant in the wake of COVID-19 (Champine et al., 2019; Hanson & Lang, 2016). A trauma-informed approach can be defined by the Four Rs: a realization of the widespread impacts of trauma and various pathways to recovery; the recognition that specific signs and symptoms accompany trauma experiences; a comprehensive and integrative response; and efforts to prevent re-traumatization (SAMHSA, 2014). Federal, state, and local programs, organizations, and systems are increasingly integrating a trauma-informed approach to childhood adversity (SAMHSA, 2014), many inspired by SAMHSA’s (2014) Four Rs and the NCTSN.
Efforts range from individual-level clinical interventions to multipronged approaches involving workforce development, screening, access to trauma-focused clinical services, and policy change. For example, trauma-focused cognitive behavioral therapy (TF-CBT) is an evidence-based, parent-child clinical intervention linked to reduced trauma-related symptoms among children and enhanced family functioning following their exposure to trauma (Cohen et al., 2000). At an organization/systems level, the THRIVE Initiative, Maine’s Trauma-Informed System of Care (SOC), is the nation’s first trauma-informed SOC for children and families (Perez et al., n.d.). SOCs are comprehensive and integrated networks of services that are strengths-based, family-driven, and culturally responsive (Perez et al., n.d.). THRIVE’s SOC includes universal trauma screening, assessments, and service planning; a focus on recovery and resilience; stakeholder awareness and understanding of trauma; changes in policy and practice throughout a system to reduce re-traumatization; and crisis management from a trauma-informed perspective (Perez et al., n.d.).

THRIVE identifies six key domains based on SAMHSA’s (2014) principles of a trauma-informed SOC approach: safety, trustworthiness, choice, collaboration, empowerment, and language access/cultural competency. Evaluation findings showed that children and youth who experienced trauma and related symptoms often did not have a diagnosis of post-traumatic stress disorder (PTSD); trauma experiences of parents/caregivers appeared to adversely affect family functioning and child and youth symptoms; and participation in services that adopted a trauma-informed approach, on average, was linked to reduced child trauma symptoms (Perez et al., n.d.). This work is among few studies that have examined the impacts of a trauma-informed approach on family functioning. Research needs to better understand the complex impacts of trauma on family systems and how trauma-informed approaches can optimize family functioning despite exposure to adversity (Champine et al., 2018).

Community capacity can promote thriving among children exposed to adversity and trauma. For instance, the Pottstown (PA) Trauma-Informed Community Connection (PTICC) aimed to build a trauma-informed community (Matlin et al., 2019). Stakeholders, including service sector representatives, participated in trauma-related training and activities and, on average, showed enhanced understanding of trauma and how to promote thriving among children exposed to adversity and trauma. Engaging diverse community stakeholders can infuse trauma-informed practice throughout community sectors serving children and families (Matlin et al., 2019).

**Core Components of a Trauma-Informed Approach**

In a comprehensive search of research literature, websites, and other sources on trauma-informed approaches, 15 elements recurred in three main categories (Hanson & Lang, 2016): workforce development (e.g., staff training and proficiency regarding trauma awareness and knowledge); trauma-focused services (e.g., use of screening assessments, availability of skilled providers); and organizational environment and practices (e.g., policy and procedure change, collaboration among trauma-informed professionals, consumer engagement). All three components may aid child- and family-serving systems in their efforts to become trauma-informed. Such efforts must also commit to advancing health equity and social justice through evidence-based, systems-level changes that eliminate structural racism and other determinants of adverse health outcomes (Tebes et al., 2019).

**Principles of Health Equity**

To achieve health equity—such that “everyone has a fair and just opportunity to be as healthy as possible” (p. 2 of report)—data-driven programs, policies, and practices must address SDOH (Braveman et al., 2017). These SDOH drive health inequities and include poverty, racism, and childhood adversity (Srivastav et al., 2020). To improve the developmental trajectories of children exposed to adversity and trauma requires addressing health equity, given well-documented disparities in access to health resources and supports based on ethnicity, race, and SES, disparities which COVID-19 has only exacerbated (Srivastav et al., 2020).

The Robert Wood Johnson Foundation (RWJF, 2020) identified five principles of health equity to guide program and policy efforts that seek to protect population health and well-being in the wake of COVID-19:

1. Use disaggregated data by sociodemographic characteristics (e.g., age, race, ethnicity, neighborhood) to help decision-makers understand how place, social factors, and health outcomes (e.g., child trauma) interact.
2. Include the people most affected by health and economic challenges in decision-making using a community-based participatory research (CBPR) approach. They are the most attuned to local structural determinants of health.
3. Empower teams dedicated to health equity and anti-racism, including members of color who span sectors (e.g., education, health, economic) and ensure supports for all groups, especially those marginalized.
4. Proactively address existing policy gaps (e.g., populations not addressed by targeted policy), consider whether protections (e.g., extended unemployment insurance) will last, and address urgent needs.
5. Promote resilience through affordable and accessible supports to help children and families reach their health potential.

These RWJF principles align with those identified by the American Public Health Association (APHA, n.d.), which emphasize explicitly naming those groups who are affected.
Adopting a Synergistic Policy Approach

Despite ample scholarship demonstrating the potential long-term impacts of childhood trauma and the benefits of trauma-informed approaches, few U.S. legislative proposals have addressed trauma-informed practice: in the U.S. Congress from 1973 to 2015, only 49 bills and 71 bill sections mentioned “trauma-informed” (Purtle & Lewis, 2017). Policies that support trauma-informed and anti-racist responses in schools, health and service systems, and organizations are needed now more than ever as we address COVID-19 (Shim & Starks, 2021).

Confront Upstream Social Determinants of Health

A conceptual framework focused on trauma-informed social policy should account for intersectionality, or how systems of race, social class, gender, and other sociodemographic characteristics intersect with discrimination and privilege to shape health outcomes (Bowen & Murshid, 2016). Policies must seek to prevent overt discrimination, for instance, through addressing upstream (or root) determinants of health problems (e.g., conditions in which people live). For example, education policy should address those factors that influence differences in educational achievement between children of color and their White peers (e.g., chronic exposure to high-stress environments, which may exacerbate childhood trauma or other mental health problems; Fukuda et al., 2020).

Relatedly, social policy should seek to ameliorate stigma that youth and families may experience in accessing resources and services that target trauma (Bowen & Murshid, 2016). One study found that perceived stigma associated with trauma (e.g., formal screening and labeling) was a barrier to Latinx families’ engagement in interventions (Guevara et al., 2021). Organizational policies can challenge stigma by avoiding diagnostic labels and providing opportunities for families to use their voices to convey their needs and experiences to practitioners and providers (Guevara et al., 2021). In addition, fostering trustworthiness and transparency related to a policy’s intended goals, outcomes, and procedures may help to attenuate stigma and fear among service-seeking clients (Bowen & Murshid, 2016).

Address Historical Trauma

Policies must address links between transgenerational circumstances (e.g., residing in impoverished communities), structural inequities, and trauma (Guevara et al., 2021). Historical trauma refers to cumulative emotional suffering across generations and historical patterns of marginalization and exclusion of minority groups (Bowen & Murshid, 2016). Historical trauma also reflects how policies themselves can be a potential source of trauma for some groups (Bowen & Murshid, 2016), for instance, separating migrant children from their parents at the U.S.–Mexico border. In the context of COVID-19, deep-rooted mistrust in governmental systems among communities of color stemming from their historical mistreatment and disempowerment may trigger memories of trauma and contribute to vaccine hesitancy (Darko, 2021). Policies can perpetuate historical trauma and structural racism, which should be directly acknowledged and prevented during the policymaking process (Bowen & Murshid, 2016).

Emphasize Empowerment and Collaboration

Policies that promote trauma-informed approaches, such as creating an SOC, need to actively promote equitable child, youth, and family outcomes. The Empower Action Model (Srivastav et al., 2020), grounded in an SDOH framework, adopts a multilevel approach to advocate for embedding race, equity, and inclusion in all policies and practices that seek to prevent childhood trauma and adversity. Key tenets of race equity and inclusion should inform organizational efforts to assess and address equity (Srivastav et al., 2020), that is, creating an inclusive environment for all families, encouraging a strong cultural identity for families through adopting practices that honor their culture, and recognizing the existence of disparities by demonstrating a commitment to equity. The Empower Action Model (Srivastav et al., 2020), in conjunction with the core components of a trauma-informed approach (Hanson & Lang, 2016), can improve organizational policies and practices to address childhood trauma and adversity. For instance, knowledge about upstream determinants of health, racism, and their effects on child wellness should be integrated into workforce development trainings and workshops. Furthermore, prioritizing the knowledge and experiences of a policy’s target population can embody empowerment and collaboration (Bowen & Murshid, 2016). Engaging community health workers (CHWs) in the development of health policies and practices that serve underrepresented communities is one way in which trauma-informed policy can also promote indigenous knowledge to improve health outcomes (Bowen & Murshid, 2016).

Recommendations for Policymakers

Investing in effective trauma-informed approaches and SDOH can save billions of dollars in future social services, employment, and health care costs (Horwitz et al., 2020; Smith, 2019). For instance, families should have access to high-quality, trauma-informed education, health, and mental health care for all children, starting early in life. Other
important implications for policymakers and practitioners include the following:

- Engage children and family members as key stakeholders in implementation plans for all trauma-informed and equity-focused initiatives.
- Support a fairly paid and trauma-informed child-serving workforce, including educators, pediatric primary care providers, and early childhood providers.
- Provide support or reimbursement for routine trauma screening in child-serving systems to improve equitable early identification of children suffering from trauma exposure, and subsequent connection to appropriate services.
- Ensure that policy and reimbursement mechanisms for health and mental health providers support cross-sector collaboration, care coordination, and service planning.
- Create equity benchmarks for children’s mental health and health outcomes data by race/ethnicity and offer incentives for providers meeting benchmarks.
- Improve access to trauma-focused and evidence-based mental health treatments, specifically those shown to be effective with diverse populations.
- Create policies to reduce disciplinary policies in educational settings that disproportionally affect students of color and widen opportunity gaps.

Although heightened awareness of the widespread impact of trauma is an important way to acknowledge and support those affected, scholars, practitioners, and policymakers need to more explicitly interrogate and eliminate the racial injustices that infiltrate systems and communities and further traumatize individuals and groups. As noted by Gorski (2019),

... too often, [trauma-informed practices] are adopted as though they are racial equity initiatives. In some cases, we offer [people] of color coping mechanisms rather than correcting . . . conditions—like inequitable policy or racially-tinged . . . practices—that exacerbate racism’s traumas. (p. 59)

Conclusion

Trauma-informed policies and practices should adopt a multi-level approach to mitigating childhood trauma linked to COVID-19 exposure. Programs must implement policies and practices that confront upstream determinants of health, address historical trauma, emphasize empowerment, and build collaboration. Naming structural racism as crucially determining health and clearly identifying groups hit by health inequities are critical steps (APHA, n.d.). To reduce disproportionate burdens of trauma on children and youth of color, strategies must target racism, and not race, as a fundamental driver of adverse health outcomes (Khazanchi et al., 2020).

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References

Amaya-Jackson, L., Absher, L. E., Gerrity, E. T., Layne, C. M., & Halladay Goldman, J. (2021). Beyond the ACE score: Perspectives from the NCTSN on child trauma and adversity screening and impact. The National Child Traumatic Stress Network. https://www.nctsn.org/sites/default/files/resources/special-resource/beyond-the-ace-score-perspectives-from-the-nctsn-on-child-trauma-and-adversity-screening-and-impact.pdf

American Academy of Pediatrics. (2021). Children and COVID-19: State-level data report. https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/children-and-covid-19-state-level-data-report/

American Public Health Association. (n.d.). Creating the healthiest nation: Advancing health equity. https://www.apha.org/-/media/apha-org/advancing_health_equity.pdf

Arantes de Araújo, L., Veloso, C. F., de Campos Souza, M., Coelho de Azevedo, J. M., & Tarro, G. (2020). The potential impact of the COVID-19 pandemic on child growth and development: A systematic review. Jornal de Pediatria. https://doi.org/10.1016/j.jped.2020.08.008

Bellis, M. A., Hughes, K., Ford, K., Rodriguez, G. R., Sethi, D., & Passmore, J. (2019). Life course health consequences and associated annual costs of adverse childhood experiences across Europe and North America: A systematic review and meta-analysis. The Lancet, 4(10), e517–e528.

Bernard, D. L., Calhoun, C. D., Banks, D. E., Halliday, C. A., Hughes-Halbert, C., & Danielson, C. K. (2021). Making the “C-ACE” for a culturally-informed adverse childhood experiences framework to understand the pervasive mental health impact of racism on Black youth. Journal of Child & Adolescent Trauma, 14, 233–247.

Bowen, E. A., & Murshid, N. S. (2016). Trauma-informed social policy: A conceptual framework for policy analysis and advocacy. American Journal of Public Health, 106(2), 223–229.

Braveman, P., Arkin, E., Orleans, T., Proctor, D., & Plough, A. (2017). What is health equity? Robert Wood Johnson Foundation. https://www.rwjf.org/en/library/research/2017/05/what-is-health-equity-

Bridgland, V. M. E., Moeck, E. K., Green, D. M., Swain, T. L., Nayda, D. M., Matson, L. A., Hutchison, N. P., & Takarangi, M. K. T. (2021). Why the COVID-19 pandemic is a traumatic stressor. PLOS ONE. https://doi.org/10.1371/journal.pone.0240146

Centers for Disease Control and Prevention. (2019a, November). Adverse Childhood Experiences (ACEs): Preventing early trauma to improve adult health. CDC Vital Signs. https://stacks.cdc.gov/view/cdc/82318

Centers for Disease Control and Prevention. (2019b, December 17). 2018 National Health Interview Survey (NHIS) data. https://www.cdc.gov/asthma/nhis/2018/table4-1.htm
Centers for Disease Control and Prevention. (2020a, December 18). COVID-19 in children and teens. https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/children/symptoms.html

Centers for Disease Control and Prevention. (2020b, February 11). Rates of new diagnosed cases of Type 1 and Type 2 Diabetes continue to rise among children. teens. https://www.cdc.gov/diabetes/research/reports/childr-diabetes-rates-rise.html

Centers for Disease Control and Prevention. (2020c, September 18). SARS-CoV-2-associated deaths among persons aged <21 years—United States, February 12-July 31, 2020. https://www.cdc.gov/mmwr/volumes/69/wr/mm6937e4.htm?s_cid=mm6937e4_w

Centers for Disease Control and Prevention. (2021a, April 6). About the CDC-Kaiser ACE Study. https://www.cdc.gov/violenceprevention/aces/about.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fviolenceprevention%2FACES%2Fabout.html

Champine, R. B., Lang, J. M., Nelson, A. M., Hanson, R. F., & Tebes, J. K. (2019). Systems measures of a trauma-informed approach: A systematic review. American Journal of Community Psychology, 64(3-4), 418-437.

Champine, R. B., Matlin, S., Strambler, M. J., & Tebes, J. K. (2018). Trauma-informed family practices: Toward integrated and evidence-based approaches. Journal of Child and Family Studies, 27, 2732-2743.

Cohen, J. A., Mannarino, A. P., Berliner, L., & Deblinger, E. (2000). Trauma-focused cognitive behavioral therapy for children and adolescents: An empirical update. Journal of Interpersonal Violence, 15(11), 1202–1223.

Darko, J. (2021). Addressing the elephant in the room: COVID-19 vaccine hesitancy in Black and Asian communities. British Journal of General Practice, 71(705), 170.

Egede, L. E., & Walker, R. J. (2020). Structural racism, social risk factors, and COVID-19: A dangerous convergence for Black Americans. The New England Journal of Medicine, 383, Article e7.

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to adult health problems. The Adverse Childhood Experiences (ACE) Study. American Journal of Preventive Medicine, 14(4), 245–258.

Fukuda, M., Markle, S. L., & Alegria, M. (2020). Educational and behavioral health service disparities for youth of color. USC Race and Equity Center. https://race.usc.edu/wp-content/uploads/2020/08/Pub-12-Fukuda-Markle-and-Alegria.pdf

Goldstein, E., Topitzes, J., Miller-Cribbs, J., & Brown, R. L. (2020). Influence of race/ethnicity and income on the link between adverse childhood experiences and child flourishing. Pediatric Research. https://doi.org/10.1038/s41390-020-01188-6

Gorski, P. (2019, April). Avoiding racial equity detours. Educational Leadership, 76, 56–61. http://www.edchange.org/publications/Avoiding-Racial-Equity-Detours-Gorski.pdf

Greenhalgh, J., & Neighmond, P. (2020, September 16). The majority of children who die from COVID-19 are children of color. National Public Radio. https://www.npr.org/sections/corona-virus-live-updates/2020/09/16/913365560/the-majority-of-children-who-die-from-covid-19-are-children-of-color

Guevara, A. M. M., Johnson, S. L., Elam, K., Hilley, C., Mcintire, C., & Morris, K. (2021). Culturally responsive trauma-informed services: A multilevel perspective from practitioners serving Latinx children and families. Community Mental Health Journal, 57(2), 325–339.

Hanson, R. F., & Lang, J. (2016). A critical look at trauma-informed care among agencies and systems serving maltreated youth and their families. Child Maltreatment, 21(2), 95–100.

Horwitz, L. I., Chang, C., Arcilla, H. N., & Knickman, J. R. (2020). Quantifying health systems’ investment in social determinants of health, by sector, 2017-2019. Health Affairs, 39(2), 192–198.

Khazanchi, R., Evans, C. T., & Marcelin, J. R. (2020). Racism, not race, drives inequity across the COVID-19 continuum. JAMA Network Open, 3(9), Article e2019933.

Magnan, S. (2017, October 9). Social determinants of health 101 for health care: Five plus five. National Academy of Medicine Perspectives. https://doi.org/10.31478/201710c

Matlin, S. L., Champine, R. B., Strambler, M. J., O’Brien, C. O., Hoffinan, E., Whitson, M., Kolka, L., & Tebes, J. K. (2019). A community’s response to adverse childhood experiences: Building a resilient, trauma-informed community. American Journal of Community Psychology, 64(3–4), 451–466.

Office of Disease Prevention and Health Promotion. (2021, June 11). Social determinants of health. https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health

Perez, A., Goan, S. K., & Patrick, D. E. (n.d.). Trauma informed approach and the SAMHSA research project THRIVE. THRIVE Initiative. https://ccsme.org/wp-content/uploads/2017/01/2011-06-09_B2-Project-THRIVE.pdf

Purkle, J., & Lewis, M. (2017). Mapping “trauma-informed” legislative proposals in U.S. Congress. Administration and Policy in Mental Health, 44(6), 867–876.

Robert Wood Johnson Foundation. (2020, May 28). Health equity principles for state and local leaders in responding to, reopening, and recovering from COVID-19. https://www.rwjf.org/en/library/research/2020/05/health-equity-principles-for-state-and-local-leaders-in-responding-to-reopening-and-recovering-from-covid-19.html

Sacks, V., & Murphey, D. (2018, February 12). The prevalence of adverse childhood experiences, nationally, by state, and by race or ethnicity. Child Trends. https://www.childtrends.org/publications/prevalence-adverse-childhood-experiences-nationally-state-race-ethnicity

 Substance Abuse and Mental Health Services Administration. (2014, July). SAMHSA’s concept of trauma and guidance for a trauma-informed approach. SAMHSA’s Trauma and Justice Strategic Initiative. https://nscacw.samhsa.gov/userfiles/files/SAMHSA_Trauma.pdf

Shim, R. S., & Starks, S. M. (2021). COVID-19, structural racism, and mental health inequities: Policy implications for an emerging syndemic. Psychiatric Services. https://doi.org/10.1176/appi.ps.202000725

Slopen, N., Shonkoff, J. P., Albert, M. A., Yoshikawa, H., Jacobs, A., Stoltz, R., & Williams, D. R. (2016). Racial disparities in child adversity in the U.S.: Interactions with family immigration history and income. American Journal of Preventive Medicine, 50(1), 47–56.
Smith, E. G. (2019, June 27). *A case statement for trauma-informed approaches*. ACES Connection. https://www.pacesconnection.com/g/becoming-a-trauma-informed-and-beyond/fileSendAction/fcType/0/fcOid/482359945936319772/filePointer/482359945936319821/fodoid/482500683473883986

Srivastav, A., Strompolis, M., Moseley, A., & Daniels, K. (2020). The Empower Action Model: A framework for preventing adverse childhood experiences by promoting health, equity, and well-being across the life span. *Health Promotion Practice, 21*(4), 525–534.

Tebes, J. K., Champine, R. B., Matlin, S. L., & Strambler, M. J. (2019). Population health and trauma-informed practice: Implications for programs, systems, and policies. *American Journal of Community Psychology, 64*(3–4), 494–508.

World Health Organization. (2021). *Social determinants of health*. https://www.who.int/health-topics/social-determinants-of-health#tab=tab_3