Leveraging North Carolina's Assets to Prevent Child Trauma

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Adverse childhood experiences increase risk for a range of health problems. A statewide summit, "Leveraging North Carolina's Assets to Prevent Child Trauma," convened researchers, practitioners, educators, government officials, policymakers, and community stakeholders to identify common goals and determine next steps in a statewide plan to prevent and heal child trauma.

Impacts of Child Trauma on Development, Health, and Well-being

Child trauma, "a frightening, dangerous or violent event that poses a threat to a child's life or body integrity" that overwhelms the child's ability to cope, produces a physiological and emotional response to the threatening event or events, resulting in terror, powerlessness, and out-of-control physiological arousal [1].

Whether resulting from a single event, such as natural disaster, or due to repetitive, chronic exposure to deeply distressing experiences, child trauma can lead to long-lasting changes to the developing brain and increase the risk of a wide range of negative academic, behavioral, mental, and physical health outcomes in adolescence and adulthood [2]. Early life experiences build brain connections, and adverse experiences can change the timing of critical periods of brain development [3]. Chronic and/or severe exposure to adversity or "toxic stress" exhausts the child's internal and external resources for supporting healthy self-regulation of behavior and emotion [4]. The earlier in childhood that adversity occurs, and the greater the number of adversities, the more devastating the impacts can be. The result is an increase in risk of maladaptive responses to both daily challenges and future events, exerting long-term, cascading effects on developmental pathways [5]. Additionally, effects of trauma on gene activity can lead to damage that is passed down to future generations [6].

Although the response to traumatic stress varies with events and among individuals, marginalized communities also suffer disproportionate exposure to adversity. This may include racism, poverty, neighborhood violence, environmental pollutants, food deserts, lack of green spaces, and lack of access to safe housing, good educational systems, and health care facilities, leading to cumulative weathering effects [7, 8]. This cumulative wear and tear on the body's systems is associated with adverse health sequalae, including increased maternal and infant mortality rates for Black women and infants [7, 8].

Despite a large body of knowledge and rigorous evidence about how trauma harms child development, there is a lack of public awareness of the causes of trauma, its effects on children, the interventions that can mitigate its impacts, and the policies that can reduce exposure to trauma from the outset. For this reason, scientists, community members, policymakers, and practitioners gathered in April 2023 for a statewide summit, "Leveraging North Carolina's Assets to Prevent Child Trauma," organized by the Frank Porter Graham Child Development Institute at the University of North Carolina at Chapel Hill. Attendees shared pertinent information and discussed evidence-based knowledge and practices with policymakers and agency administrators.

This summit was a call to action with a focus on the "causes of the causes" of child trauma [9]. A call to action is necessary to promote healing from trauma and to tackle its underlying social and structural root causes, such as inequities that manifest as poverty, racism, discrimination, and community violence, among others. Summit speakers addressed child trauma prevention and mitigation through engagement with health care and other systems, community leaders and organizations, and policies and programs across sectors.

Trauma-Informed Care in North Carolina's Clinical and Medical Spaces

An upstream primary prevention approach constitutes the first line of defense by preventing exposure to the conditions that give rise to child trauma. However, there are ongoing critical needs for sufficient evidence-based clinical, psychological, and medical services to mitigate the negative impacts of trauma in childhood and throughout adulthood.

An understanding of the significant physical and mental health sequelae of child trauma can lead to a trauma-

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informed approach to health care. This includes a reframing of approaches to reject the mantra that traumatized children who are exhibiting related behavioral problems are defective or "bad" in some way. While many children appear resilient against adversity, others have difficulties with learning and self-regulation of behavior and emotion, as well as medical problems [10]. Although all pediatricians and other health care providers routinely care for children and adults who have experienced trauma, this relevant history is often hidden due to shame, stigma, and lack of understanding. Knowledge of the factors that contribute to common health disorders can help clinicians provide more focused, insightful, effective, and compassionate care.

Since the prevalence of child trauma is high, and there are numerous challenges with screening children and their caregivers, the Substance Abuse and Mental Health Services Administration has suggested a universal precautions approach to trauma-informed care—the 4Rs framework [11]. The 4Rs framework advises that clinicians and other child-serving professionals *realize* how trauma affects children; *recognize* the relevant symptoms of past trauma; *respond* using trauma-informed principles that are integrated into policies, procedures, and practices; and *resist* re-traumatization [11]. Trauma-informed care requires moving from "summing the suffering to building the buffering" of safe, stable relationships that help support resiliency [1]. There are numerous evidence-based tools clinicians can use to help understand trauma's effects on children and address their needs (Table 1).

A clinical approach supplemented by strategies and policies that create positive and protective environments promotes normative development and mental and physical health and well-being. Additionally, there are significant untapped opportunities for trauma and prevention researchers to work with human services providers, clinicians, and medical professionals to integrate these practices into their work.

Systemic Sources of Trauma

Practitioners, policymakers, researchers, and others must also recognize and address the systemic sources of child trauma arising from societal systems ostensibly designed to serve children—child welfare, education, health care, juvenile justice, and others. A trauma-informed system can strengthen resilience and weed out systemic sources of trauma through workforce education and aligning of systems with the principles and practices that support children and help them heal and thrive.

Additionally, stakeholders across sectors must minimize sources of trauma in the health care system. Individual experiences of child trauma can be exacerbated by clinical practices resulting in helplessness, lack of privacy, and vulnerability (e.g., undressing, being touched by strangers, hearing biased remarks by medical staff) or by systemic factors, such as bias from medical personnel and/or institutional bias, discrimination or racism, stigma, or neglectful care [12]. Inadequate or inaccessible health care facilities also contribute to health disparities, resulting in a lack of care that can address trauma too often experienced by children in lower-income or minoritized groups.

These structural or systemic factors can act as barriers to healing and can cause traumatic re-injury to children and adults who have experienced trauma directly, as well as indirectly by invoking collective trauma—cultural, historical, social, systemic, and structural traumas that have negatively impacted communities [12]. Although child trauma exposure is common, individuals from marginalized communities (e.g., Black, Latinx, and those identifying as gay/lesbian or bisexual) are more likely to have higher exposure to child trauma and to suffer poor health as a result [13].

North Carolina's Assets: Engaged Communities

Momentum is steadily mounting in North Carolina for building trauma-informed communities and supportive systems that focus on the intergenerational impacts of adversity, particularly within underserved and marginalized communities. Community members, organizations, foundations, and researchers are forming local coalitions to address rising rates of child maltreatment, domestic violence, substance addiction, and mental and behavioral health problems in our youth (e.g., Resilient North Carolina Collaborative Coalition [14] and a registry of organizations, agencies, and other summit participants [15]). A statewide system of care infrastructure that centers trauma prevention, racial equity, and family voice is currently under consideration by state agencies.

TABLE 1.
Examples of Trauma-Informed Clinical Care Resources

American Academy of Family Physicians ▪ The American Family Physician: Providing Trauma-Informed Care
American Academy of Pediatrics: PATTeR Pediatric Approach to Trauma, Treatment and Resilience ▪ The Trauma Toolbox for Primary Care ▪ Helping Foster and Adoptive Families Cope With Trauma: A Guide for Pediatricians ▪ Online Course: Trauma-Informed Care and Resilience Promotion ▪ Videos: video case vignette series for screening, evaluation, and follow-up of children experiencing trauma
American College of Obstetricians and Gynecologists ▪ Caring for Patients Who Have Experienced Trauma
Centers for Disease Control and Prevention ▪ Building Trauma-Informed Communities
Substance Abuse and Mental Health Services Administration ▪ Trauma-informed Care Implementation Resource Center
National Child Traumatic Stress Network ▪ Tools for Health Care Professionals
Trauma-Informed Care Implementation Resource Center ▪ Trauma-Informed Care
Center for Child & Family Health (based in Durham, NC, and founded in collaboration with Duke University, North Carolina Central University, and the University of North Carolina at Chapel Hill) ▪ Trauma-informed Communities Project

Taylor **SIDEBAR**

During the April summit, "Leveraging North Carolina's Assets to Prevent Child Trauma," Dr. Kelly Graves, executive director and cofounder of the Kellin Foundation, noted that "community resilience is a dynamic process at the community and systems level" built upon an active response to the needs and challenges faced by their residents, who are best supported through interconnected networks of services and resources. North Carolina is moving to an upstream public health approach that attacks the root causes of trauma and aims to prevent exposure to adversity. A wide variety of community resilience-building strategies and systems reforms are advancing through the work of established, trusted partners to heal historical and ongoing sources of trauma (the North Carolina Department of Health and Human Services [NCDHHS] Division of Child and Family Well-Being, the Equity Research Action Coalition at the UNC Frank Porter Graham Child Development Institute, Smart Start, the PACES [positive and adverse childhood experiences] Connection network).

Efforts are currently underway with several North Carolina groups and offices working together to inform a statewide plan that represents the interests of diverse communities and regions across the state; e.g., the NC Trauma and Resilience Design Group. Collective action has the greatest potential for collective impact. Critical to all such efforts is the use of rigorous scientific research as scaffolding for community actions and support from innovative, trauma-informed policies to solidify, scale, and sustain that change [16].

The Critical Role of Strategic Partnerships

Because child trauma affects people across all demographics, North Carolina is striving to prioritize programs and policies that address a wide range of issues and needs, including mental health, physical health, education, housing, transportation, financial security, and employment. However, transformation of a single system will not lead to

Taylor **SIDEBAR** ***continued***

success; cross-sector/system partnerships and collaborations are vital.

In addition to the necessary and cross-cutting work of state and local government, research institutions, philanthropy, nonprofit organizations, and private industry also play critical roles. The North Carolina Office of Strategic Partnerships (OSP) helps foster these connections by developing, launching, and enhancing collaboration between state government and North Carolina's research and philanthropic sectors.

Irrespective of sector, agency, or mission, there are critical and meaningful opportunities for all entities in North Carolina to build consideration of the impacts of trauma into decision-making and evidence-based preventive measures.

Conclusion

Knowledge of the damaging effects of child trauma can change how people understand behavior and can lead to more nuanced and compassionate interactions within and across all the various entities that touch children's lives. These range from families and communities to education, child welfare, health care, and juvenile justice sectors. Each person in a child's life can positively contribute to their health and well-being by recognizing the effects of trauma, and by serving as safe and secure figures: the school bus driver, a teacher's assistant, a loving aunt, a friend's parent. Supportive relationships with family and community can buffer the effects of adversity and provide protection for the child [1].

Prevention strategies that increase awareness/education, enrich daily interactions with each other and with our young people, and ensure that systems are evidence-based and trauma-informed can be normalized and embedded into our daily lives [17]. Research demonstrates that providing easily accessible resources and expanding community opportunities available to children and families can lead to positive outcomes [18].

Normalizing prevention practices is an essential ingredient in transforming the lives of individual children, and can positively influence social drivers of health and well-being across whole communities. Certain principles have been identified by prevention science that, if embraced on a public health platform, can permeate society. And to take effect, they must be supported by policies, understood by the public, carried out by adults influential in children's lives, and implemented in communities. NCMJ

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References
1. American Academy of Pediatrics. Trauma-Informed Care. May 16, 2023. Accessed June 16, 2023. https://www.aap.org/en/patient-care/trauma-informed-care/
2. Lippard ETC, Nemeroff CB. The devastating clinical consequences of child abuse and neglect: increased disease vulnerability and poor treatment response in mood disorders. *Am J Psychiatry.* 2020;177(1):20–36. doi:10.1176/appi.ajp.2019.19010020
3. Stevens JS, van Rooij SJH, Jovanovic T. Developmental contributors to trauma response: the importance of sensitive periods, early environment, and sex differences. *Curr Top Behav Neurosci.* 2018;38:1–22. doi:10.1007/7854_2016_38
4. Sege RD, Amaya-Jackson L, AMERICAN ACADEMY OF PEDIATRICS Committee on Child Abuse and Neglect, Council on Foster Care, Adoption, and Kinship Care; AMERICAN ACADEMY OF CHILD AND ADOLESCENT PSYCHIATRY Committee on Child Maltreatment and Violence; NATIONAL CENTER FOR CHILD TRAUMATIC STRESS. Clinical considerations related to the behavioral manifestations of child maltreatment. *Pediatrics.* 2017;139(4). doi:10.1542/peds.2017-0100
5. Briggs EC, Amaya-Jackson L, Putnam KT, Putnam FW. All adverse childhood experiences are not equal: The contribution of synergy to adverse childhood experience scores. *Am Psychol.* 2021;76(2):243–252. doi:10.1037/amp0000768
6. Yehuda R, Lehrner A. Intergenerational transmission of trauma effects: putative role of epigenetic mechanisms. *World Psychiatry.* 2018;17(3):243–257. doi:10.1002/wps.20568
7. Iruka IU, Gardner-Neblett N, Telfer NA, et al. Effects of racism on child development: advancing antiracist developmental science. *Annu Rev Dev Psychol.* 2022;4(1). doi:10.1146/annurev-devpsych-121020-031339
8. McEwen B. Stress, adaptation, and disease. Allostasis and allostatic load. *Ann N Y Acad Sci.* 1998;840:33–44. doi:10.1111/j.1749-6632.1998.tb09546.x
9. Shim RS, Compton MT. The social determinants of mental health: psychiatrists' roles in addressing discrimination and food insecurity. *Focus (Am Psychiatr Publ).* 2020;18(1):25–30. doi:10.1176/appi.focus.20190035
10. Moxley S, Garrison MEB. Perry, B. D. and Winfrey, O. (2021). What happened to you? Conversations on trauma, resilience, and healing. Flatiron Books. *Fam Consum Sci Res J.* 2023;51(3):231–233. doi:10.1111/fcsr.12465
11. Substance Abuse and Mental Health Services Administration. *SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach.* HHS Publication: 2014; No. (SMA) 14-4884.
12. Grossman S, Cooper Z, Buxton H, et al. Trauma-informed care: recognizing and resisting re-traumatization in health care. *Trauma Surg Acute Care Open.* 2021;6(1):e000815. doi:10.1136/tsaco-2021-000815
13. Merrick MT, Ford DC, Ports KA, Guinn AS. Prevalence of Adverse Childhood Experiences From the 2011-2014 Behavioral Risk Factor Surveillance System in 23 States. *JAMA Pediatr.* 2018;172(11):1038–1044. doi:10.1001/jamapediatrics.2018.2537
14. North Carolina PACEs Connection. Accessed July 21, 2023
15. Registry of Trauma-Involved Inds, Orgs, Agencies. Accessed July 21, 2023. https://docs.google.com/spreadsheets/d/1QNhnb7MDPipmEOWcsuY6dVWY00u0J8lHIfLHAjAKhHU/edit#gid=875859806
16. Fishbein DH, Ridenour TA, Stahl M, Sussman S. The full translational spectrum of prevention science: facilitating the transfer of knowledge to practices and policies that prevent behavioral health problems. *Transl Behav Med.* 2016;6(1):5–16. doi:10.1007/s13142-015-0376-2
17. Sloboda Z, Johnson KA, Fishbein DH, et al. Normalization of prevention principles and practices to reduce substance use disorders through an integrated dissemination and implementation framework. *Prev Sci.* April 13, 2023. doi:10.1007/s11121-023-01532-2
18. Meek S, Iruka IU, Allen R, et al. *Fourteen Priorities to Dismantle Systemic Racism in Early Care and Education.* Children's Equity Project; 2020.