POLICY STATEMENT Guidance for the Clinician in Rendering Pediatric Care

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Trauma-Informed Care in Child Health Systems

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Recent progress in understanding the lifelong effects of early childhood adversities has clarified the need for an organized strategy to identify and intervene with children, adolescents, and families who may be at risk for maladaptive responses. Trauma-informed care (TIC) in child health care operationalizes the biological evidence of toxic stress with the insights of attachment and resilience to enhance health care delivery to mitigate the effects of trauma. The resulting pediatric health care delivery strategy promotes and restores resilience in children and adolescents, partners with families to support relational health, and reduces secondary trauma among pediatric health care clinicians. This policy statement summarizes what policy makers, legislators, and health care organizations need to consider in terms of infrastructure, resources, and financial support to facilitate the integration of TIC principles into all pediatric points of care. The accompanying clinical report describes the elements of TIC in the direct care of children, adolescents, and families and covers the spectrum from prevention to treatment. The recommendations in this statement and the clinical report build on other American Academy of Pediatrics policies that address the needs of special populations (such as children and adolescents in foster or kinship care, in immigrant and refugee families, or in poor or homeless families) and are congruent with American Academy of Pediatrics policies and technical reports concerning the role of pediatric clinicians in the promotion of lifelong health.

INTRODUCTION

Over the past 2 decades, basic science has explained how cumulative adverse childhood experiences in the relative absence of safe, stable, nurturing relationships (SSNRs)[1] alter neurohormonal stress responses, gene expression, telomere length, brain development, and immunity, enabling researchers to elucidate how the body biologically embeds

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DOI: https://doi.org/10.1542/peds.2021-052579

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PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

To cite: Duffee J, Szilagyi M, Forkey H, et al. Trauma-Informed Care in Child Health Systems. *Pediatrics*. 2021;148(2):e2021052579

childhood trauma. Recent studies of toxic stress support assertions that the origins of lifelong health are in early childhood and that chronic stress in childhood strongly predicts adult health status.[2,3] In the context of expanding evidence, pediatricians and others involved in community-based early childhood systems need strategies to mitigate the damaging effects of early childhood trauma and to promote resilience in children and families. Trauma-informed care (TIC) offers an organizing principle for pediatric practice that improves awareness of the spectrum of trauma-related symptoms, promotes an emotionally safe environment of care, and provides specific interventions to mitigate the effects of trauma exposure.[4,5] This policy statement presents recommendations for policy makers, legislators, and health care organizations for implementation of TIC into pediatric health systems. The accompanying clinical report[6] presents best-practice guidance for TIC in the direct care of children and adolescents.

BACKGROUND

TIC is defined by the National Child Traumatic Stress Network as medical care in which all parties involved assess, recognize, and respond to the effects of traumatic stress on children, caregivers, and health care providers. TIC also includes attention to secondary traumatic stress (STS), the emotional strain that results when an individual, whether a health care worker or parent, hears about or witnesses the traumatic experiences, past or present, of children.

TIC Promotes Relational Health and Resilience

Every pediatric encounter presents opportunities to promote family resilience and relational health.[7] Informed by research in infant mental health and neurodevelopment, early relational health refers to the establishment of foundational relationships during the first 3 years of life that are central to successful physiologic, emotional, and moral development of the young child.[8] Relational health, in a more general sense, is applicable to all age groups, is dyadic, and includes the capacity of both the child and caregiver to enter into a safe, secure, nurturing relationship allowing both to thrive.[1,9,10] Strong foundational relationships support resilience and buffer stress in children, so they can be considered primary prevention of stress-related disturbance. Trauma-informed practices also support relational health and family resilience as important protective factors for those who have been exposed to persistent adversity or potentially traumatic events (see Fig 1).

Human neuroendocrine–immune networks respond to internal and external sensors that identify danger and safety by activating in dangerous circumstances and deactivating when danger has subsided.[11] Toxic stress responses occur with prolonged activation of the neuroendocrine–immune system and dysregulation of homeostasis (or allostasis if multiple systems are involved)[12] in the absence of buffering by SSNRs. Toxic stress responses can result in lifelong impairments in physical, mental, and relational health.[13]

The concept of toxic stress adds an important physiologic basis to the study of attachment and our understanding of trauma. Trauma is defined as an event, series of events, or circumstances experienced by a person as physically or emotionally harmful that can have long-lasting adverse effects on the person's functioning and well-being (emotional, physical, or spiritual).[14] Attachment theory describes the deep and enduring relationship between a child and adult caregiver that ideally provides a secure base from which the child can develop and explore the world.[15]

Resilience is the dynamic process of adaptation to or despite significant adversity by using protective factors and learned skills to manage stressful circumstances.[16] Resilience may allow a person to experience tolerable rather than toxic stress in response to adversity. Some characteristics of resilient children include strong executive functions (self-control of attention and impulses) and a strong personal identity, often related to a cultural or faith tradition.[17] However, most important to both resilience and relational health is the capacity for young children to form at least one stable, caring, and supportive relationship.[9,18]

Exposure to Trauma Is Common

Almost half of American children, or 34 million younger than 18 years, have faced at least one potentially traumatic early childhood experience.[19] More than 1 in 7 adults report exposure during childhood to 4 or more adverse childhood experiences such as abuse, neglect, or other household adversity,[20] including intimate partner violence or parental incarceration. Certain populations are at higher risk for trauma exposure, both physical and emotional. In surveys, poverty or financial stress is the most commonly reported childhood adversity, second only to loss of a parent.[21,22] Exposure to divorce, child maltreatment, sexual abuse, intimate partner violence, bullying, parental mental illness, parental substance use problems, and community violence are also common.[21] Specific populations at high risk for trauma include children and adolescents who

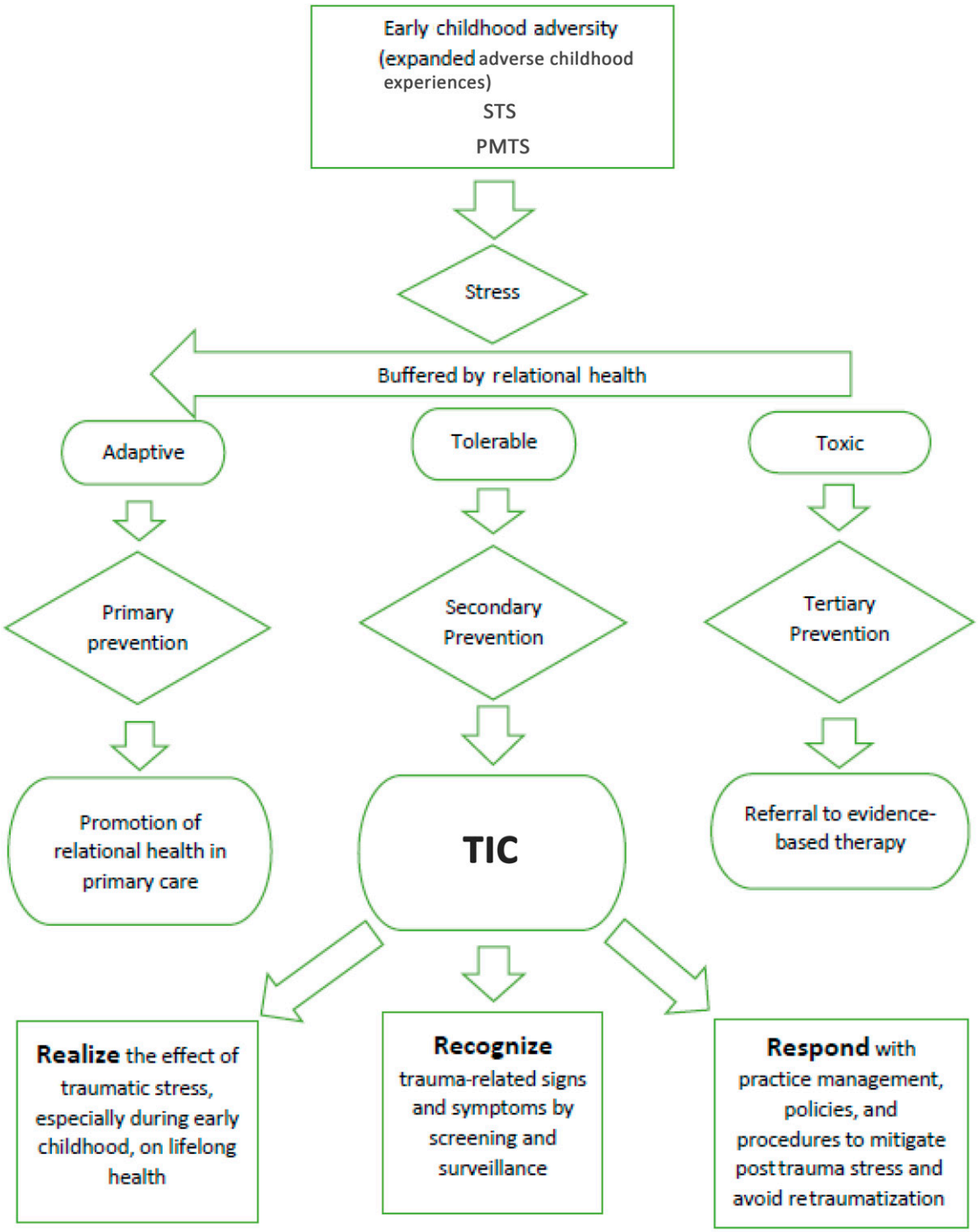

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FIGURE 1 Pediatric approach to TIC.

identify as LGBTQ, have developmental or behavioral problems,[23–25] are in foster or kinship care, are incarcerated, are living in deep poverty, or are immigrants. Potentially traumatic environmental and community-level conditions include economic stress, school or community violence,

adverse experiences during and after immigration, natural disasters, pandemics, and mass-casualty events such as shootings or bombings.

Racism is a common cross-cutting risk factor. Racial, ethnic, or religious bigotry magnifies the risk inherent to other special populations.[26] Experiences ranging from hate crimes, police profiling, bullying, or microaggressions to covert discrimination are traumatic events and may be internalized as trauma by those who are victims, indirectly or directly, of the events.[27,28] Historical trauma refers to the collective, transgenerational emotional and psychological injury of specific ethnic, racial, or cultural groups and their descendants who have experienced major events of oppression such as genocide, forced displacement, or slavery.[29,30] Originally applied to children of the Holocaust, the concept is now applied to American Indian and Alaskan native people, African American people, Mexican American people, Japanese American people, and other groups of people who have experienced mass trauma.[30] Investigators link historical "soul wounding" to current health and behavioral disorders including substance use disorder, domestic violence, and suicide, particularly in Indigenous communities.[29,31] Children separated from families during immigration and/or detained in group facilities overseen by the Office of Refugee Resettlement are a recent special population at severe risk for long-term sequelae resulting from forced family separation.[32,33]

The Effects of Early Life Trauma Are Felt Over the Life Course

In November 2019, the Centers for Disease Control and Prevention reviewed the emerging literature linking early childhood adversity with adult illnesses[20,34] and analyzed survey data from 25 states over 2 years.[3,35] Researchers concluded that reducing exposure to early childhood trauma and mitigating posttrauma effects would generally and significantly reduce adult morbidity and mortality. Using logistic regression modeling, they estimated potential reductions in incidence from low for obesity (1.7%) to high for heavy drinking, chronic obstructive pulmonary disease, and depression (23.9%, 27.0%, and 44.1%, respectively). Recommendations included creating healthy communities, supporting SSNRs, and developing programs that apply primary (reducing exposure to childhood adversity) and secondary prevention (mitigating the effects of exposure) on the basis of principles of TIC.

There Is Need for a Child-Specific Trauma Nosology

The *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (DSM-5) presents a list of trauma-related disorders ranging from mild (adjustment disorder) to severe (posttraumatic stress disorder [PTSD]).[36] Two additional categories, reactive attachment disorder and disinhibited social engagement disorder, are specific to young children (please see the DSM-5 for complete diagnostic criteria). This nosology can be expanded to describe other presentations common in pediatric health care settings: developmental trauma disorder (DTD), pediatric medical traumatic stress (PMTS), and STS, the last being most relevant for health care workers, family members, and caregivers.

DTD

The diagnosis of PTSD, as outlined in the current DSM-5, does not adequately describe the variable presentations of trauma manifestations in children across developmental stages.[37] Children with complex trauma histories often exhibit heterogeneous developmental symptoms as well as difficulties with intimate relationships and with regulation of attention and impulse control.[38] DTD is a proposed new diagnostic category that incorporates these differences and attempts to better describe the disturbances that occur in multiple developmental domains.[39] The omission of DTD in the DSM-5 has been controversial,[40] and the search for a better nosology of trauma, including DTD, is ongoing.[41]

PMTS

PMTS refers to the distress that patients and family members experience during hospitalization for a perceived life-threatening diagnosis or while living with or caring for individuals with life-altering chronic conditions.[42] PMTS is underrecognized and rarely addressed despite its high prevalence.[43,44] Up to 80% of ill or injured children and their families may have traumatic stress reactions after a life-threatening illness, injury, or procedure.[45] In some surveys, up to 20% of parents of children admitted to a PICU develop PTSD within a few months.[45] The suffering of family members and caregivers is often not addressed because of existing structural and reimbursement obstacles for multigenerational care.

Although research on PMTS (and on pediatric postintensive care syndrome)[46,47] is ongoing, researchers in 1 study found that approximately 10% of children developed PTSD 3 to 5 months after major surgery, and 28% developed posttraumatic stress symptoms (PTSS) resulting in functional disability by parent report.[48] PTSS can also occur after a severe injury or diagnosis of an illness such as cancer. In another family study,

more than 10% of children had persistent functional impairment from PTSS at 6 weeks and 1 year after a potentially life-threatening injury or diagnosis, and 15% of mothers and 8% of fathers met criteria for PTSD at 1 year.[49]

STS

As described earlier, STS may occur in parents, other family members, and health care workers such as physicians, nurses, other hospital staff, first responders, and therapists. STS may have many of the same long-term effects on health that affect children exposed to trauma.[50] Some health care workers may also develop disabling posttrauma symptoms that can interfere with quality of life both at work and home. Health care workers may have their own trauma histories that contribute to their reactions when exposed to the suffering of others. Nonclinical staff may also experience STS triggered by their own trauma histories, especially if the health care facility is located in an area with high adversity and nonclinical staff live in the vicinity.

Burnout and STS

Preliminary evidence exists of a synergistic effect among STS, depression, and burnout in affected health care workers.[51] STS in combination with burnout has been associated with a significant increase in the frequency of medical errors.[52,53] Depression, anxiety, and suicide are greater risks for physicians than for the general population. In the United States, the rate of suicide among female physicians is 130% higher than among women who are not physicians; the rate for male physicians is 40% higher than for men who are not physicians.[51] Burnout includes a spectrum of pathologic conditions that develop in the context of occupational stress and is almost twice as prevalent among physicians. The risk among nurses for burnout, depression, and STS is even higher. More than half of nurses reported suboptimal mental or physical health,[54] approximately 35% reported a high degree of emotional exhaustion,[55] and 18% reported depression in national surveys. Reports of posttraumatic stress among health care workers related to the coronavirus disease 2019 pandemic prompted worldwide concern for increased awareness and trauma-informed support for the mental health of all involved.[56]

CORE ELEMENTS OF TRAUMA-INFORMED SYSTEMS

Core principles that can be helpful for policy development, outlined by the National Council on Behavioral Health (2019)[57] are outlined in the following sections. Implementation of TIC at a practice level is described in detail in the accompanying clinical report.[6]

Safe Physical and Emotional Environment

The health care organization, workspace, and every encounter should be characterized by compassion, cultural humility, equity, collaboration, and safety for families and employees. An emotionally safe workplace includes acknowledgment of and particular attention to racial and gender discrimination, including implicit bias both in rendering care and workplace human relations. A review of health care settings from the viewpoints of patients, families, and staff can uncover practices, processes, or details in the environment that are potentially traumatizing.

Leadership Commitment to TIC

Hospital and health system leadership can annually review policies and procedures to ensure a safe work environment and setting to provide TIC, to reduce STS and burnout, and to promote sensitivity to the needs of trauma survivors.[58] The alignment of financial and human capital resources to support an optimal health environment in all levels and locations of care is extremely important. Surveys designed to assess system readiness for implementation are available and can be adapted for pediatric health care settings.

Surveillance and standardized screening to assess staff and patients for trauma exposure, symptoms, and strengths are important components of trauma-informed pediatric care. Universal screening, when implemented within the larger context of trauma-informed approaches and endorsed and supported by administrative leadership, reduces stigma and allows standardized responses such as time off or referral to an employee assistance program. Families and youth may be queried at the point of care, such as at the time of hospital admission. Formal screening should always be for the benefit of children and adolescents, avoid retraumatization, and identify protective as well as risk factors.[59] More specific information about screening is included in the accompanying clinical report.[6]

Patient and Family Empowerment

Involvement of families and youth in the development of TIC policies and practices, particularly regarding cultural, historical, and gender issues, is essential to building an environment of support and mutuality.[14] Both formal and informal structures, such as Family Advisory Councils and family-centered rounds,[60] create a cultural expectation of collaboration and enable the health care team to understand the strengths and vulnerabilities of individual families

and of the populations served. When appropriate, tribal elders, traditional healers, and other faith community leaders can be included in developing individual care plans or institutional quality-improvement efforts. A whole-person, whole-family, whole-community perspective promotes improved awareness of how cultural backgrounds affect the perception of trauma, safety, and privacy.[61,62]

TIC Continuous Through the Health Care System

TIC, from a public health perspective, includes primary, secondary, and tertiary prevention strategies. Primary prevention is a comprehensive approach that addresses social determinants of health (such as structural racism, poverty, and violence) that are often root causes of community trauma.[63] Promotion of relational health and other resilience factors (such as strong executive function and self-efficacy) may be considered primary prevention.[64] Following the fourth edition of *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*, promotion of early childhood relational health is a core purpose of both pediatric primary care and early childhood education.[65]

The National Child Traumatic Stress Network includes the promotion of child and family resilience, enhancement of protective factors, awareness of parent or caregiver trauma, and involvement of families in program development and evaluation as secondary prevention.[66] Trauma-informed therapies (eg, trauma-focused cognitive behavioral therapy) for symptomatic children and youth are considered tertiary prevention. These therapies are especially important for high-risk populations as identified earlier.[67–70] Attachment-based dyadic therapies, such as parent–child interaction therapy, may serve to prevent development of persistent traumatic stress symptoms in high-risk families[71] and may be considered both secondary and tertiary prevention.

Recruitment and Training of a Trauma-Informed and Compassionate Workforce

Recruitment and pre-employment practices may help discern the capacity for empathy among prospective employees.[72] Training and education of all administrators, clinicians, and staff, both clinical and nonclinical, can promote the appreciation of the lifelong effects of trauma on child and adolescent development and family resilience and the implementation of trauma-aware practices. Continuous quality-improvement programs translate new knowledge and skills about childhood trauma into supervision, training, and patient care.

Prevention of STS requires specific training of all staff to raise awareness, promote resilience, and explore the interaction among STS, burnout, depression, substance use, and professional quality of life. Supportive supervision and peer mentoring offer opportunities for all employees to reflect on their own trauma histories and to promote compassion, nonjudgmental attitudes and collaboration.[73]

Coordination of Care Across Family-Serving Systems in the Community

Trauma-informed health care systems establish and support collaborative, interdisciplinary relationships among community and public health agencies that serve children and adolescents to coordinate care for children, adolescents, and families exposed to trauma. Schools,[74] juvenile justice programs,[75] mental health professionals,[76] home visiting services, child welfare systems,[76] and foster care agencies[77] are natural partners for pediatric health organizations in promoting community resilience. Many have established TIC programs. Community early intervention programs can help prevent and mitigate adversity and often have the advantage of caring for young children in their natural environment as home visitors.[78–80]

RECOMMENDATIONS FOR SYSTEM-LEVEL IMPLEMENTATION

Federal and State Funding

Federal agencies such as the Centers for Disease Control and Prevention can continue and expand research to improve understanding of the developmental effects of trauma and the efficacy of specific interventions for historically resilient populations. Urgently needed are successful strategies to interrupt the intergenerational transfer of family violence. Strategies are also crucial to blunt the impact of historical trauma in communities of color and in American Indian and Alaskan native populations in the United States.[30] It is particularly important to identify the origins of and successfully mitigate community violence, including racism, misogyny, and religious, ethnic, and cultural bias.

State-level resources can be directed to implementation, dissemination, and evaluation of trauma-informed community programs, such as interagency and multigenerational strategies for opioid dependency. One example of a state interagency, multigenerational treatment program is Ohio START (Sobriety, Treatment and Reducing Trauma).[81] States could develop a communication infrastructure to

facilitate data sharing, improve interdisciplinary/interagency cooperation, and engage community partners including foundations and academic institutions.

Federal guidelines can require that state Medicaid programs ensure comprehensive coverage for all children and adolescents and pregnant mothers without regard for legal or immigration status and mandate that coverage include mental health and substance use disorder services. Financing that increases access to high-quality, comprehensive, coordinated, culturally competent health care for high-risk populations is a high priority. Federal and state regulations can require all insurers, including Medicaid and private health insurers, to include coverage for TIC elements, including surveillance, screening, diagnosis, counseling, case management, follow-up, community collaboration, mental health care, and home visiting.

Large Health Systems, Insurers, and Managed Care Organizations

In large health systems, leadership can align its mission and financing with the core elements of trauma-informed systems.[82] Supporting TIC includes payment for trauma-informed, integrated mental health services, care coordination, rigorous case management, and seamless referral networks for intensive treatment. Prevention of secondary trauma, including care of affected health care workers, should be built into the mission of the health system.

Academic Centers and Children's Hospitals

Academic health centers train and educate the next generation of physicians, nurses, and ancillary health personnel and can promote the transformation to TIC in all health settings through education, research, and advocacy. Children's hospitals and health systems can model mental health integration[83] and trauma-informed practices throughout all service lines.[84] Because children's hospitals embrace population health management and community advocacy, they may serve as the anchor institution collaborating with community agencies to address social adversity at the neighborhood level while promoting TIC services.[85] Together with community pediatric care systems, academic health centers and children's hospitals can integrate core elements of education into workforce training for health care workers and community partners such as first responders, child welfare workers, teachers, and juvenile justice personnel.[86,87]

SUMMARY OF RECOMMENDATIONS

Federal and State Government

- Continue and expand research funding for the National Institutes of Health, Centers for Disease Control and Prevention, Substance Abuse and Mental Health Services Administration, and other federal agencies to improve the understanding of the root causes and developmental effects of trauma and effective interventions.
- Support epidemiological research of at-risk populations emphasizing prevention, early identification, and mitigation of the effects of community trauma.
- Facilitate interdisciplinary and interagency cooperation and data sharing to promote seamless care, research data collection, and amplification of promising practices in TIC.
- Engage national partners, foundations, and academic institutions in cross-systems planning to support early relational health.
- Support curriculum development and implementation through mechanisms such as the Agency for Healthcare Research and Quality.
- Expand health care coverage and payment for enhanced services such as integrated mental and social care.
- Mandate coverage for TIC services by government and private payers, including screening, diagnosis, office-based management, counseling, case management, community collaboration, and home visiting.

Large Health Systems and Managed Care Organizations

- Commit to becoming a trauma-informed system of care and integrate clinical practice of TIC into all services.
- Recruit, retain, and train a trauma-informed workforce.
- Expand and improve system-wide strategies for identification and treatment of all children and adolescents affected by traumatizing experiences.
- Build seamless referral networks for intensive treatment when indicated.
- Develop care models and fair payment mechanisms to promote implementation of TIC, including practice-level case management.
- Promote system-wide trauma-informed quality-improvement programs.
- Support engagement by including family advisors and employees in service planning and quality improvement, with particular emphasis on cultural, ethnic, gender, and racial concerns.

- Develop, implement, and evaluate policies and procedures to reduce retraumatization and STS and to identify, support, and refer for treatment health care workers who are symptomatic from traumatic stress.

American Academy of Pediatrics, American Academy of Pediatrics Chapters, and Academic Institutions

- Develop curricula on trauma and resilience for trainees, practicing pediatricians, and their teams.
- Support community collaboration with agencies that serve children and adolescents to create a seamless trauma-informed system of care.
- Develop and share quality improvement and maintenance of certification modules at state, chapter, and national levels.
- Develop a comprehensive research agenda for TIC in pediatric health systems.
- Partner with organizations such as the National Child Traumatic Stress Network to investigate new models of integrated care including pediatric and psychiatric telenetworks.
- Include questions about TIC in periodic surveys of pediatricians.
- Evaluate intervention and treatment strategies in collaboration with federal and state initiatives and mental health partners.
- Provide workshops, seminars, or online modules to train cross-system professionals about childhood trauma and resilience.

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ABBREVIATIONS

DSM-5: *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*
DTD: developmental trauma disorder
PMTS: pediatric medical traumatic stress
PTSD: posttraumatic stress disorder
PTSS: posttraumatic stress symptoms
SSNR: safe, stable, nurturing relationship
STS: secondary traumatic stress
TIC: trauma-informed care

FINANCIAL DISCLOSURE: The authors have indicated they have no financial relationships relevant to this article to disclose.

FUNDING: No external funding.

POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose.

REFERENCES

1. Centers for Disease Control and Prevention. Essentials for childhood: creating safe, stable, nurturing relationships and environments. Available at: https://www.cdc.gov/violenceprevention/childabuseandneglect/essentials.html. Accessed January 11, 2021
2. Center on the Developing Child. The Foundations of Lifelong Health Are Built in Early Childhood. Cambridge, MA: Center on the Developing Child at Harvard University; 2010. Available at: www.developingchild.harvard.edu. Accessed June 24, 2021
3. Merrick MT, Ford DC, Ports KA, et al. Vital signs: estimated proportion of adult health problems attributable to adverse childhood experiences and implications for prevention - 25 states, 2015–2017. *MMWR Morb Mortal Wkly Rep.* 2019;68(44):999–1005
4. Substance Abuse and Mental Health Services Administration. National Child Traumatic Stress Initiative. Available at: https://www.samhsa.gov/child-trauma. Accessed January 11, 2021
5. National Child Traumatic Stress Network. Interventions. Available at: https://www.nctsn.org/treatments-and-practices/trauma-treatments/interventions. Accessed January 11, 2021
6. Forkey H, Szilagyi M, Kelly ET, Duffee J; American Academy of Pediatrics, Council on Foster Care, Adoption, and Kinship Care, Council on Community Pediatrics, Council on Child Abuse and Neglect, and Committee on Psychosocial Aspects of Child and Family Health. Trauma-informed care. *Pediatrics.* 2021;148(2):e2021052580
7. Oral R, Ramirez M, Coohey C, et al. Adverse childhood experiences and trauma informed care: the future of health care. *Pediatr Res.* 2016;79(1–2):227–233
8. FrameWorks Institute. *Building Relationships: Framing Early Relational Health.* Washington, DC: FrameWorks Institute; 2020. Available at: https://www.frameworksinstitute.org/wp-content/uploads/2020/06/FRAJ8069-Early-Relational-Health-paper-200526-WEB.pdf. Accessed January 11, 2021
9. National Scientific Council on the Developing Child. *Supportive Relationships and Active Skill-Building Strengthen the Foundations of Resilience: Working Paper 13.* Cambridge, MA: Center for the Developing Child, Harvard University; 2015. Available at: https://developingchild.harvard.edu/resources/supportive-relationships-and-active-skill-building-strengthen-the-foundations-of-resilience/. Accessed January 11, 2021
10. Centers for Disease Control and Prevention. *Preventing Adverse Childhood Experiences: Leveraging the Best Available Evidence.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention; 2019. Available at: https://www.cdc.gov/violenceprevention/pdf/preventingACES.pdf. Accessed January 11, 2021
11. Johnson SB, Riley AW, Granger DA, Riis J. The science of early life toxic stress for pediatric practice and advocacy. *Pediatrics.* 2013;131(2):319–327

12. McEwen BS. Stressed or stressed out: what is the difference? *J Psychiatry Neurosci*. 2005;30(5):315–318

13. Shonkoff JP, Garner AS; Committee on Psychosocial Aspects of Child and Family Health; Committee on Early Childhood, Adoption, and Dependent Care; Section on Developmental and Behavioral Pediatrics. The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*. 2012;129(1). Available at: www.pediatrics.org/cgi/content/full/129/1/e232

14. Substance Abuse and Mental Health Services Administration. *SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach*. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2014

15. Bowlby J. *A Secure Base: Parent-Child Attachment and Healthy Human Development*. New York, NY: Basic Books; 1988

16. Masten AS. Resilience theory and research on children and families: past, present and future. *J Fam Theory Rev*. 2018;10(1):12–31

17. Chen Y, VanderWeele TJ. Associations of religious upbringing with subsequent health and well-being from adolescence to young adulthood: an outcome-wide analysis. *Am J Epidemiol*. 2018;187(11):2355–2364

18. Sege R, Linkenbach J. Essentials for childhood: promoting healthy outcomes from positive experiences. *Pediatrics*. 2014;133(6) Available at: www.pediatrics.org/cgi/content/full/133/6/e1489

19. Bethell C, Davis MB, Gombojav N, Stumbo S, Powers K. *A National and Across State Profile on Adverse Childhood Experiences Among Children and Possibilities to Heal and Thrive: Issue Brief October 2017*. Baltimore, MD: Johns Hopkins Bloomberg School of Public Health; 2017

20. Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *Am J Prev Med*. 1998;14(4):245–258

21. Cronholm PF, Forke CM, Wade R, et al. Adverse childhood experiences: expanding the concept of adversity. *Am J Prev Med*. 2015;49(3):354–361

22. Sacks V, Murphey D. The prevalence of adverse childhood experiences, nationally, by state, and by race/ethnicity. 2018. Available at: https://www.childtrends.org/wp-content/uploads/2018/02/ACESBriefUpdatedFinal_ChildTrends_February2018.pdf. Accessed January 11, 2021

23. Berg KL, Shiu CS, Feinstein RT, Acharya K, MeDrano J, Msall ME. Children with developmental disabilities experience higher levels of adversity. *Res Dev Disabil*. 2019;89:105–113

24. Schüssler-Fiorenza Rose SM, Xie D, Stineman M. Adverse childhood experiences and disability in U.S. adults. *PM R*. 2014;6(8):670–680

25. Hoover DW, Kaufman J. Adverse childhood experiences in children with autism spectrum disorder. *Curr Opin Psychiatry*. 2018;31(2):128–132

26. Trent M, Dooley DG, Dougé J; Section on Adolescent Health; Council on Community Pediatrics; Committee on Adolescence; Council on Community Pediatrics; Committee on Adolescence. The impact of racism on child and adolescent health. *Pediatrics*. 2019;144(2):e20191765

27. Huynh VW. Ethnic microaggressions and the depressive and somatic symptoms of Latino and Asian American adolescents. *J Youth Adolesc*. 2012;41(7):831–846

28. Heard-Garris NJ, Cale M, Camaj L, Hamati MC, Dominguez TP. Transmitting trauma: a systematic review of vicarious racism and child health. *Soc Sci Med*. 2018;199:230–240

29. Mohatt NV, Thompson AB, Thai ND, Tebes JK. Historical trauma as public narrative: a conceptual review of how history impacts present-day health. *Soc Sci Med*. 2014;106:128–136

30. Sotero MM. A conceptual model of historical trauma: implications for public health, practice and research. *J Health Dispar Res Pract*. 2006;1(1):93–108

31. Brave Heart MYH. The historical trauma response among natives and its relationship with substance abuse: a Lakota illustration. *J Psychoactive Drugs*. 2003;35(1):7–13

32. Linton JM, Griffin M, Shapiro AJ; Council on Community Pediatrics. Detention of immigrant children. *Pediatrics*. 2017;139(5):e20170483

33. Wood LCN. Impact of punitive immigration policies, parent-child separation and child detention on the mental health and development of children. *BMJ Paediatr Open*. 2018;2(1):e000338

34. Bellis MA, Hughes K, Ford K, Ramos Rodriguez G, Sethi D, Passmore J. Life course health consequences and associated annual costs of adverse childhood experiences across Europe and North America: a systematic review and meta-analysis. *Lancet Public Health*. 2019;4(10):e517–e528

35. Jones CM, Merrick MT, Houry DE. Identifying and preventing adverse childhood experiences: implications for clinical practice. *JAMA*. 2020;323(1):25–26

36. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*, 5th ed. Washington, DC: American Psychiatric Publishing; 2013

37. D'Andrea W, Ford J, Stolbach B, Spinazzola J, van der Kolk BA. Understanding interpersonal trauma in children: why we need a developmentally appropriate trauma diagnosis. *Am J Orthopsychiatry*. 2012;82(2):187–200

38. Rahim M. Developmental trauma disorder: an attachment-based perspective. *Clin Child Psychol Psychiatry*. 2014;19(4):548–560

39. van der Kolk BA. Developmental trauma disorder. *Psychiatr Ann*. 2005;35(5):401

40. Bremness A, Polzin W. Commentary: developmental trauma disorder: a missed opportunity in DSM V. *J Can Acad Child Adolesc Psychiatry*. 2014;23(2):142–145

41. Schmid M, Petermann F, Fegert JM. Developmental trauma disorder: pros and cons of including formal criteria in the psychiatric diagnostic systems. *BMC Psychiatry*. 2013;13:3

42. Kazak AE, Kassam-Adams N, Schneider S, Zelikovsky N, Alderfer MA, Rourke M. An integrative model of pediatric medical traumatic stress. *J Pediatr Psychol*. 2006;31(4):343–355

43. Shah AN, Jerardi KE, Auger KA, Beck AF. Can hospitalization precipitate toxic

stress? *Pediatrics*. 2016;137(5):e20160204

44. Rzucidlo SE, Campbell M. Beyond the physical injuries: child and parent coping with medical traumatic stress after pediatric trauma. *J Trauma Nurs*. 2009; 16(3):130–135
45. National Child Traumatic Stress Network. Medical trauma: effects. Available at: https://www.nctsn.org/what-is-child-trauma/trauma-types/medical-trauma/effects. Accessed January 11, 2021
46. Watson RS, Choong K, Colville G, et al. Life after critical illness in children-toward and understanding of pediatric post-intensive care syndrome. *J Pediatr*. 2018;198:16–24
47. Goldberg R, Mays M, Halpern NA. Mitigating post-intensive care syndrome-family: a new possibility. *Crit Care Med*. 2020;48(2):260–261
48. Ari AB, Peri T, Margalit D, Galili-Weisstub E, Udassin R, Benarroch F. Surgical procedures and pediatric medical traumatic stress (PMTS) syndrome: Assessment and future directions. *J Pediatr Surg*. 2018;53(8):1526–1531
49. Landolt MA, Ystrom E, Sennhauser FH, Gnehm HE, Vollrath ME. The mutual prospective influence of child and parental post-traumatic stress symptoms in pediatric patients. *J Child Psychol Psychiatry*. 2012;53(7):767–774
50. Administration for Children and Families. Secondary traumatic stress. Available at: https://www.acf.hhs.gov/trauma-toolkit/secondary-traumatic-stress. Accessed January 11, 2021
51. Dyrbye LN, Shanafelt TD, Sinsky CA, et al. *Burnout Among Health Care Professionals: A Call to Explore and Address This Underrecognized Threat to Safe, High-Quality Care: Discussion Paper*. Washington, DC: National Academy of Medicine; 2017
52. Melnyk BM, Orsolini L, Tan A, et al. A national study links nurses' physical and mental health to medical errors and perceived worksite wellness. *J Occup Environ Med*. 2018;60(2): 126–131
53. Shoji K, Lesnierowska M, Smoktunowicz E, et al. What comes first, job burnout or secondary traumatic stress? Findings from two longitudinal studies from the U.S. and Poland. *PLoS One*. 2015; 10(8):e0136730
54. Paton F. Depressed nurses more likely to make medical errors. *Nursing News*. October 31, 2017. Available at: https://nurseslabs.com/depressed-nurses-likely-make-medical-errors. Accessed June 24, 2021
55. McHugh MD, Kutney-Lee A, Cimiotti JP, Sloane DM, Aiken LH. Nurses' widespread job dissatisfaction, burnout, and frustration with health benefits signal problems for patient care. *Health Aff (Millwood)*. 2011;30(2):202–210
56. Walton M, Murray E, Christian MD. Mental health care for medical staff and affiliated healthcare workers during the COVID-19 pandemic. *Eur Heart J Acute Cardiovasc Care*. 2020;9(3):241–247
57. National Council for Behavioral Health. *Fostering Resilience and Recover: A Change Package for Advancing Trauma-Informed Primary Care*. Washington, DC: National Council for Behavioral Health; 2019. Available at: https://www.thenationalcouncil.org/wp-content/uploads/2019/12/FosteringResilienceChangePackage_Final.pdf?daf=375ateTbd56. Accessed January 11, 2021
58. Fallot RD, Harris M. *Creating Cultures of Trauma-Informed Care (CCTIC): A Self-Assessment and Planning Protocol Community Connections*. Washington, DC: Trauma-Informed Care Project; 2009. Available at: https://www.theannainstitute.org/CCTICSELFASSPP.pdf. Accessed June 24, 2021
59. Garg A, Boynton-Jarrett R, Dworkin PH. Avoiding the unintended consequences of screening for social determinants of health. *JAMA*. 2016;316(8):813–814
60. National Institute for Children's Health Quality. Creating a patient and family advisory council: a toolkit for pediatric practices. 2012. Available at: https://www.nichq.org/sites/default/files/resource-file/PFAC%20Updated.pdf. Accessed June 24, 2021. Accessed January 11, 2021
61. Benner GJ. Comprehensive trauma-informed care for the whole community: the whole child initiative model. *Educational Considerations*. 2019;44(2):8
62. Center for Healthcare Strategies. Key ingredients for successful trauma-informed care implementation. 2016. Available at: www.chcs.org/media/ATC_whitepaper_040616.pdf. Accessed January 11, 2021
63. Rawles PD. The link between poverty, the proliferation of violence and the development of traumatic stress among urban youth in the united states to school violence. 2010. Available at: http://forumonpublicpolicy.com/Vol2010.no4/archive.vol2010.no4/rawles.pdf. Accessed January 11, 2021
64. Garner A, Yogman M; American Academy of Pediatrics, Committee on Psychosocial Aspects of Child and Family Health, Section on Developmental and Behavioral Pediatrics, Council on Early Childhood. Preventing childhood toxic stress: partnering with families and communities to promote relational health. *Pediatrics*. 2021;148(2): e2021052582
65. Hagan JF, Shaw JS, Duncan PM, eds. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*. 4th ed. Itasca, IL: American Academy of Pediatrics; 2017
66. National Child Traumatic Stress Network. Essential elements. Available at: https://www.nctsn.org/trauma-informed-care/trauma-informed-systems/healthcare/essential-elements. Accessed January 11, 2021
67. Gleason MM, Goldson E, Yogman MW; Council on Early Childhood; Committee on Psychosocial Aspects of Child and Family Health; Section on Developmental and Behavioral Pediatrics. Addressing early childhood emotional and behavioral problems. *Pediatrics*. 2016;138(6):e20163025
68. Council on Early Childhood; Committee on Psychosocial Aspects of Child and Family Health; Section on Developmental and Behavioral Pediatrics. Addressing early childhood emotional and behavioral problems. *Pediatrics*. 2016;138(6):e20163023
69. Machtinger EL, Cuca YP, Khanna N, Rose CD, Kimberg LS. From treatment to healing: the promise of trauma-

informed primary care. *Womens Health Issues*. 2015;25(3):193–197

70. Annie E. Casey Foundation. Trauma-informed practice with young people in foster care. Issue brief #5. 2012. Available at: www.aecf.org/resources/trauma-informed-practice-with-young-people-in-foster-care/. Accessed January 11, 2021
71. Allen B, Timmer SG, Urquiza AJ. Parent-child interaction therapy as an attachment-based intervention: theoretical rationale and pilot data with adoptive children. *Child Youth Serv Rev*. 2014;47(3):334–341
72. The Chadwick Trauma-Informed Systems Dissemination and Implementation Project. Secondary traumatic stress in child welfare practice. Trauma-informed guidelines for organizations. 2016. Available at: www.chadwickcenter.com/wp-content/uploads/2017/08/stsinchildwelfarepractice-trauma-informedguidelinesfororganizations.pdf. Accessed January 11, 2021
73. Head Start. Reflective supervision. Available at: https://eclkc.ohs.acf.hhs.gov/family-engagement/building-partnerships-guide-developing-relationships-families/reflective-supervision. Accessed January 11, 2021
74. Children's Defense Fund. Addressing children's trauma. A toolkit for Ohio's schools. 2015. Available at: https://www.cdfohio.org/wp-content/uploads/sites/6/2018/07/addressing-childrens-trauma-issue-brief-JULY2015.pdf. Accessed June 24, 2021
75. National Child Traumatic Stress Network. Essential elements of a trauma-informed juvenile justice system. Available at: https://www.nctsn.org/sites/default/files/resources//essential_elements_trauma_informed_juvenile_justice_system.pdf. Accessed January 11, 2021
76. Chadwick Trauma-Informed Systems Project. *Creating Trauma-Informed Child Welfare Systems: A Guide for Administrators*, 2nd ed. San Diego, CA: Chadwick Center for Children and Families; 2013
77. Schilling S, Fortin K, Forkey H. Medical management and trauma-informed care for children in foster care. *Curr Probl Pediatr Adolesc Health Care*. 2015;45(10):298–305
78. Beckmann KA. Mitigating adverse childhood experiences through investments in early childhood programs. *Acad Pediatr*. 2017;17(7, suppl):S28–S29
79. Center on the Developing Child. A science-based framework for early childhood policy. Available at: https://developingchild.harvard.edu/resources/a-science-based-framework-for-early-childhood-policy/. Accessed January 11, 2021
80. Duffee JH, Mendelsohn AL, Kuo AA, Legano LA, Earls MF; Council on Community Pediatrics; Council on Early Childhood; Committee on Child Abuse and Neglect. Early childhood home visiting. *Pediatrics*. 2017;140(3):e20172150
81. Ohio START. (Sobriety, Treatment and Reducing Trauma). Available at: https://ohiostart.org/. Accessed January 11, 2021
82. Marsac ML, Kassam-Adams N, Hildenbrand AK, et al. Implementing a trauma-informed approach in pediatric health care networks. *JAMA Pediatr*. 2016;170(1):70–77
83. Dayton L, Agosti J, Bernard-Pearl D, et al. Integrating mental and physical health services using a socio-emotional trauma lens. *Curr Probl Pediatr Adolesc Health Care*. 2016;46(12):391–401
84. Wissow LS. Introducing psychosocial trauma-informed integrated care. *Curr Probl Pediatr Adolesc Health Care*. 2016;46(12):389–390
85. Zuckerman D, ed. *Hospitals Building Healthier Communities: Embracing the Anchor Mission*. College Park, MD: The Democracy Collaborative at the University of Maryland; 2013. Available at https://community-wealth.org/content/hospitals-building-healthier-communities-embracing-anchor-mission. Accessed January 11, 2021
86. Ko SJ, Ford JD, Kassam-Adams N, et al. Creating trauma-informed systems: child welfare, education, first responders, health care, juvenile justice. *Prof Psychol Res Pr*. 2008;39(4):396–404
87. Child Welfare Information Gateway. The importance of a trauma-informed children's welfare system. 2015. Available at: https://www.childwelfare.gov/pubs/issue-briefs/trauma-informed. Accessed January 11, 2021