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## Attending to the Not-so-Little "Little Things": Practicing Trauma-Informed Pediatric Health Care

Aimee K. Hildenbrand  
*Nemours Children's Health System*

Scottie B. Day  
*University of Kentucky, scottie.day@uky.edu*

Meghan L. Marsac  
*University of Kentucky, meghan.marsac@uky.edu*

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# Attending to the Not-so-Little “Little Things”: Practicing Trauma-Informed Pediatric Health Care

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Aimee K. Hildenbrand, PhD<sup>1,2,3</sup> , Scottie B. Day, MD, FAAP<sup>4,5</sup>, and Meghan L. Marsac, PhD<sup>3,4,5</sup>

Jose, a 10-year-old boy, arrives at his pediatrician’s office with a knee injury after a bicycle accident. Although he easily engages in conversation about school and friends, Jose becomes quiet when discussing the injury, often looking to his mother to answer questions. His pediatrician refers Jose for magnetic resonance imaging (MRI) to rule out torn ligaments. Jose appears anxious during the physical examination and when discussing imaging but does not voice concerns. Jose never obtains the MRI and does not follow-up with his pediatrician again until he becomes ill several months later; at this time, the pediatrician observes that Jose continues to limp. What could be happening with Jose’s follow-up care?

Research has highlighted the immense impact that childhood trauma exposure can have on health across the lifespan.<sup>1</sup> For many, the term “childhood trauma” typically calls to mind child maltreatment or exposure to domestic or community violence, disaster, and/or the death of a loved one. Recognizing exposure to these potentially traumatic events that occur outside the medical system is key, but what does the health care experience itself contribute to psychosocial well-being? Many medical providers become accustomed to conducting routine examinations, procedures, and interventions for pediatric patients. For example, sending children for MRIs, X-rays, blood work, and referrals to specialists is part of routine practice for medical providers. However, interfacing with the health care system (eg, navigating unfamiliar surroundings, interacting with multiple providers), undergoing even simple procedures (eg, physical examinations, blood draws, immunization, imaging), and implementing medical regimens (eg, taking medications, lifestyle restrictions) can be perceived as threatening and distressing for pediatric patients and their families. These experiences can contribute to emotional health symptoms, complicating the child’s overall health goals.

The adverse psychosocial consequences that children and families may experience in response to medical

treatment are often referred to as pediatric medical traumatic stress (PMTS). PMTS is “a set of psychological and physiological responses of children and their families to pain, injury, serious illness, medical procedures, and invasive or frightening treatment experiences.”<sup>2</sup> Many children and parents report at least a few symptoms of PMTS in the immediate aftermath of injury, illness, or associated medical care, with roughly 30% demonstrating more persistent symptoms.<sup>3</sup> While providers may be most aware of PMTS in children with life-threatening conditions, PMTS can develop even in instances where medical events are not considered objectively severe. Indeed, research consistently indicates that objective ratings of medical severity do not reliably predict PMTS.<sup>4</sup> The purpose of this article is to call attention to the ways in which routine pediatric medical care may be traumatic for children and families and to offer practical strategies for supporting patients and families during *all* health care interactions.

## How Does PMTS Present in Children and Families?

The primary symptoms of PMTS include avoidance (eg, missing appointments, avoiding conversations about medical treatment), reexperiencing (eg, traumatic events

<sup>1</sup>Center for Healthcare Delivery Science, Nemours Children’s Health System, Wilmington, DE, USA

<sup>2</sup>Division of Behavioral Health, Department of Pediatrics, Nemours/Alfred I. duPont Hospital for Children, Wilmington, DE, USA

<sup>3</sup>Center for Injury Research & Prevention, Children’s Hospital of Philadelphia, Philadelphia, PA, USA

<sup>4</sup>Kentucky Children’s Hospital, Lexington, KY, USA

<sup>5</sup>Department of Pediatrics, University of Kentucky, Lexington, KY, USA

### Corresponding Author:

Aimee K. Hildenbrand, Center for Healthcare Delivery Science, Nemours Children’s Health System, 1600 Rockland Road, RC-1 Suite 160, Wilmington, DE 19803, USA.

Email: Aimee.Hildenbrand@nemours.org



replayed in nightmares and play activities), hyperarousal (eg, startles when providers enter room), and changes in mood (eg, new fears, increased withdrawal or irritability). In our case example, Jose was nervous and jumpy when examined by his pediatrician, avoided talking about the accident, and did not attend his MRI appointment or scheduled follow-up visits. The trajectory of PMTS generally takes 1 of 4 paths: resilient (transient distress), recovery (distress during early aftermath of medical event or care that resolves), chronic (high distress early on which continues over time), and escalating (high distress early on which continues to escalate).<sup>3</sup> Given that PMTS is associated with poorer health-related quality of life, school and physical functioning, and adherence to follow-up care,<sup>3,4</sup> identifying children and families who are unable to recover without direct psychosocial intervention has the potential to improve the child's overall health.

Cultural factors are critical to consider when evaluating potential PMTS.<sup>4</sup> For example, some patients and families may present with primarily somatic or behavioral concerns. Some cultural traditions may discourage patients and caregivers from questioning medical providers, which can interfere with sharing concerns with providers. Others may defer medical decisions to a particular family member. Families may be reluctant to seek help for emotional or behavioral problems or may prefer traditional healing customs or resources within their community. With regard to Jose, perhaps his family's linguistic or cultural background contributed to hesitancy to ask questions about Jose's injury or express concerns about his pediatrician's recommendations.

## How Can Pediatric Providers Address PMTS?

While provision of family-centered care is important in optimizing pediatric health care, family-centered care alone does not fully address trauma responses brought on by medical conditions and care. Trauma-informed care is characterized by 4 key elements: (1) realizing the impact of trauma; (2) recognizing how trauma affects children, families, and staff; (3) responding by applying trauma knowledge into practice; and (4) preventing retraumatization.<sup>5</sup> A trauma-informed approach to health care requires that providers integrate this understanding into every clinical interaction. This includes identifying and addressing any preexisting traumatic stress symptoms and minimizing potentially traumatic aspects of medical care.

Pediatric providers play an essential role in implementing trauma-informed assessment and medical care. Screening for risk factors and/or current symptoms can help health care teams determine how to most appropriately allocate scarce resources. Risk factors for persistent

PMTS include prior exposure to potentially traumatic experiences, history of psychological problems, higher levels of pain, perceived life threat, separation from caregivers, poor social support, and severe early traumatic stress symptoms.<sup>3</sup> Various screening tools are available (see HealthCareToolBox.org). When selecting an assessment, providers should consider the intended purpose of screening (eg, assess current distress vs future risk), feasibility (eg, training and time to administer, costs, staff needed to address any critical findings), and whether the measure has been validated in the population(s) of interest. Because PMTS can emerge, persist, or worsen at any point during medical care, periodic screening is recommended.

Additionally, pediatric providers can take steps to prevent or minimize potentially traumatic aspects of medical care. Most children and families experience some distress due to frightening or painful medical events and procedures. The DEF Protocol for Pediatric Healthcare Providers (see HealthCareToolBox.org) is an evidence-based tool that can be used to guide trauma-informed care across health care settings; in addition to addressing the A-B-Cs (airway-breathing-circulation) of physical health, providers are encouraged to attend to the D-E-Fs of emotional health: reduce *D*istress, promote *E*motional support, and remember the *F*amily. This includes optimizing pain management, promoting family presence and emotional support, and facilitating clear, consistent communication with the family.

Information and basic psychoeducation are key components of trauma-informed care. Providers should educate all children and families about what to expect with regard to medical treatment. For example, clinicians can discuss normative physical and emotional recovery after an acute injury and encourage children to return to activities in a safe manner. In Jose's case, normalizing early stress reactions and providing education about what to expect during the MRI may have reduced his distress and efforts to avoid this procedure. This conversation may have also opened the door to additional interventions to address anxiety, such as child life specialist support before/during Jose's MRI. For youth newly diagnosed with a chronic condition, education should target perceptions of safety and control and promote a sense of self-efficacy (eg, identifying family strengths and coping resources). Given that child and family perceptions are a far stronger predictor of emotional recovery than the objective nature or severity of illness, injury, or treatment,<sup>3</sup> providers should attend closely to the child and family's understanding of the child's condition, prognosis, and treatment plans. Inquiring about aspects of the situation that worry children and their families and providing age-appropriate information to address these concerns can support adaptive coping.

When risk factors are identified, early intervention may help prevent ongoing trauma reactions. For instance, children with prior trauma history may require additional age-appropriate education as well as modifications to care delivery to reduce the risk of retraumatization (eg, offering choices for when, where, and how procedures are performed). Clinicians can also provide psychoeducational resources such as AfterTheInjury.org or handouts from HealthCareToolBox.org. For additional evidence-based, self-directed programs to promote adaptive coping for children with chronic illnesses and their families, see Marsac et al.<sup>6</sup>

In the event of more severe and persistent distress that is interfering with medical care and/or functioning, patients will likely benefit from referrals for mental health treatment. When Jose's family returns to his pediatrician's office after having not followed through with medical recommendations, his pediatrician should consider consultation with or warm handoff to a mental health professional such as a social worker or psychologist. Partnering with mental health providers who are co-located or integrated into the health care team can ensure that families are connected to evidence-based trauma-focused services. In settings where psychosocial providers are not readily available for consultation, providers can assist families in identifying trusted mental health resources and services within their communities. Physicians in these settings can also help advocate for increased integration of psychosocial providers. In addition, physician leaders can support efforts to incorporate trauma-informed care training into medical school curriculum and continuing medical education. Online provider education is available at HealthCareToolBox.org as well as through the American Academy of Pediatrics Trauma and Resilience ECHO curriculum (see AAP.org). See Marsac et al<sup>7</sup> for additional guidance regarding trauma-informed approaches in pediatric health care settings.

### Author Contributions

AKH: Contributed to conception and design; drafted manuscript; critically revised manuscript; gave final approval; agrees to be accountable for all aspects of work ensuring integrity and accuracy.

SBD: Contributed to conception and design; critically revised manuscript; gave final approval; agrees to be accountable for all aspects of work ensuring integrity and accuracy.

MLM: Contributed to conception and design; drafted manuscript; critically revised manuscript; gave final approval; agrees to be accountable for all aspects of work ensuring integrity and accuracy.

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### ORCID ID

Aimee K. Hildenbrand  <https://orcid.org/0000-0003-0147-3232>

### References

1. Garner AS, Shonkoff JP; Committee on Psychosocial Aspects of Child and Family Health; Committee on Early Childhood, Adoption, and Dependent Care; Section on Developmental and Behavioral Pediatrics. Early childhood adversity, toxic stress, and the role of the pediatrician: translating developmental science into lifelong health. *Pediatrics*. 2012;129:e224-e231.
2. National Child Traumatic Stress Network. Definition of medical traumatic stress. Paper presented at: Medical Traumatic Stress Working Group Meeting; September 2003; Philadelphia, PA.
3. Price J, Kassam-Adams N, Alderfer MA, Christofferson J, Kazak AE. Systematic review: a reevaluation and update of the Integrative (Trajectory) Model of Pediatric Medical Traumatic Stress. *J Pediatr Psychol*. 2016;41:86-97.
4. Kassam-Adams N. Medical trauma: the impact of illness, injury, and medical treatment experiences on children and families. In: Osofsky JD, Groves BM, eds. *Violence and Trauma in the Lives of Children: Overview of Exposure*. Vol 1. Santa Barbara, CA: Praeger/ABC-CLIO; 2018:247-267.
5. Substance Abuse and Mental Health Services Administration. *Trauma-Informed Approach and Trauma-Specific Interventions*. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2015.
6. Marsac ML, Hildenbrand AK, Kassam-Adams N. Interventions in medical settings. In: Landolt M, Cloitre M, Schnyder U, eds. *Evidence-Based Treatments for Trauma-Related Disorders in Children and Adolescents*. Cham, Switzerland: Springer International; 2017:405-425.
7. Marsac ML, Kassam-Adams N, Hildenbrand AK, et al. Implementing a trauma-informed approach in pediatric health care networks. *JAMA Pediatr*. 2016;170:70-77.