What is Medical Trauma?

Overview

✓ Medical trauma is defined as a set of psychological and physiological responses to pain, injury, serious illness, medical procedures and frightening treatment experiences.¹

✓ Medical trauma can be viewed as an acute onset of a disrupted physiological system in which the ongoing threat is internal (i.e., the body) and may be long term or permanent (e.g., cancer treatment).² This differs from an external trauma (e.g., car accident) where once the event ends, the external threat ends.

What Aspects of Medical Events Might Be Psychologically Distressing?

✓ The nature of the illness or injury (e.g., sudden, life-threatening)³ and related treatment (e.g., intubation).⁴,⁵

✓ Shock and loss of sense of control associated with diagnosis.³,⁶,⁷

✓ Life-altering complications or unexpected medical intervention (e.g., emergency cesarean section).⁸

✓ Conditions of hospital environment (e.g., constant noise, frequent medical checks, sleep disruption).⁹

✓ Hallucinations caused by delirium (e.g., belief that staff are torturing patient).⁹,¹⁰

✓ Perceived or actual mistreatment by medical providers (e.g., forced to receive unwanted intervention).⁹,¹¹

Medical Events and PTSD

✓ Per the Diagnostic Statistical Manual (DSM-5), medical events must be “sudden, catastrophic events” to qualify as traumatic events and therefore qualify for a diagnosis of PTSD.¹²

✓ Posttraumatic stress symptoms related to medical events, regardless of PTSD diagnostic status, have been found to be related to psychosocial outcomes.¹³

✓ Conceptual models including the Integrative Trajectory Model of Pediatric Medical Traumatic Stress¹,¹⁴ and the Enduring Somatic Threat model¹² have been developed to understand the unique psychological features of medical trauma that may not be captured by a PTSD diagnosis.

What Are the Symptoms of PTSD Resulting From Medical Trauma?

✓ Posttraumatic stress symptoms after medical trauma may present as:
  o Persistent intrusive thoughts or memories of aspects of the medical event (e.g., replaying the memory of getting the diagnosis).⁶
  o Significant distress when confronted with reminders of the medical trauma (e.g., medical appointments).
  o Disruptions in treatment adherence due to trauma-related avoidance.⁹
  o Overutilization of health care (e.g., health-related checking behaviors) related to hypervigilance.³,⁹,¹⁵
How Common is PTSD Following Medical Trauma?

It is common and expected for patients to have some difficult reactions in the days or weeks following a medical trauma. These reactions will naturally decrease over time for most patients.

**Children and Adolescents.** An estimated 80% of ill or injured children and their families experience some traumatic stress reactions following a medical trauma. Between 20-30% of parents and 15-25% of children experience persistent traumatic stress.

**Adults.** Among adults, estimates of traumatic stress reactions vary depending on the type of event. Approximately one-third of traumatically injured patients experience PTSD or depression symptoms post-injury. Approximately 20-30% of ICU patients experience PTSD symptoms.

How can PTSD Resulting from Medical Trauma be Addressed?

- Treatment for PTSD resulting from medical trauma should incorporate the same elements used in gold-standard PTSD treatments. Specific areas of focus may include:
  - In behavioral therapies, identifying and processing sensory memories (i.e., re-experiencing of physical sensations not clearly associated with a memory).
  - In cognitive therapies, addressing appraisals related to changes to the body and physical ability, missed developmental milestones, identity and role disruptions, occupational functioning and changes in interpersonal functioning.
  - Integration of health and rehabilitation psychology principles such as:
    - Pain management strategies to accommodate new or exacerbated pain.
    - Expectation management strategies in collaboration with other providers (e.g., education, normalization) to support adjustment.

- The nature of medical trauma provides a unique opportunity for implementation of system-level prevention, assessment and early-intervention programs.
  - Trauma-informed care (i.e., acknowledgement of medical trauma and incorporation of knowledge into organizational culture, policies and procedures) may reduce risk for development of PTSD following medical trauma.
  - Integrated behavioral health teams in medical care settings may help to minimize medical trauma or increase access to early intervention for PTSD related to medical trauma.

For further information check out:

- [Pediatric Medical Traumatic Stress Toolkit for Healthcare Providers](https://nationalchildtraumaticstressnetwork.org/kit/) developed by the National Child Traumatic Stress Network for assessment tools and comprehensive treatment considerations.
- [Oxford Centre for Anxiety Disorders and Trauma’s Post-ICU PTSD Therapist Guide](https://www.oxfordcenter.org/post-icu-ptsd-therapist-guide) for treatment considerations unique to the experience of the ICU.
- [Managing the Psychological Impact of Medical Trauma](https://www.oxfordcenter.org/managing-the-psychological-impact-of-medical-trauma) by Flaum Hall and Hall for a comprehensive overview of medical trauma and its consequences in adults.

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