

# Caring for the psychosocial needs of the acutely traumatized patient

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## ABSTRACT

Support for a patient in the aftermath of a potentially traumatic event is enhanced when clinicians understand the normal reactions that may occur during the traumatization process. This article discusses recommendations from international and national guidelines as well as best practices from the medical and psychiatric literature to help guide clinicians providing care for acutely traumatized patients.

**Keywords:** trauma, post-traumatic stress disorder, acute stress disorder, psychological first aid, potentially traumatic event, mental health

## Learning objectives

- Describe how to sensitively screen exposed patients for traumatization and appropriately refer for mental health interventions when indicated.
- Outline effective and professional interventions to support victims in disaster situations.
- Describe normal reactions to potentially traumatizing events and identify maladaptive coping behaviors.

Potentially traumatic events (PTEs) such as experiencing a natural disaster, a terrorist attack, a mass shooting, a violent or sexual crime, or a traumatic injury can adversely affect patients' mental and physical health. Guidelines on best practices for managing the acute psychosocial needs of these patients can be found in the psychology and trauma literature but are lacking in the literature and continuing medical education materials offered to primary care physician assistants (PAs). Some patients who suffer adverse reactions to a PTE do not perceive themselves as ill or in need of help and consequently do not seek mental health services. Providing holistic care for these patients requires knowledge of the traumatization

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process, an understanding of the spectrum of reactions to trauma, and the ability to recognize patients who require additional resources.

## PREVALENCE

Based on statistics gathered by the US Department of Justice, the incidence of violence in the United States is increasing.<sup>1</sup> The number of US residents over age 11 years who were victims of nonfatal violent crimes (including simple or aggravated assault, sexual assault, or rape) increased from 2.7 million in 2015 to 3.3 million in 2018.<sup>1</sup> The Substance Abuse and Mental Health Services Administration (SAMHSA) estimates that 61% of men and 51% of women in the United States report exposure to a PTE at some point in their lifetime.<sup>2</sup>

Trauma, from the Greek word meaning *wound*, can be defined as a sudden, horrifying experience that is deeply distressing and often life-threatening.<sup>3</sup> Traumatization occurs when the victim becomes aware of the trauma threat and experiences a stress response. A natural disaster, such as a Category 5 hurricane, causes great distress and destruction that overwhelms the community and requires outside resources to address. A tragedy, such as the 2003 explosion of the space shuttle Columbia, also causes great suffering,

### Key points

- Most people recover from a potentially traumatic event.
- Guidelines support the use of psychologic first aid and CBT-TF within 3 months to reduce the occurrence of PTSD.
- Medications for anxiety or depression should not be started within the first month of a potentially traumatic event.

destruction, and distress but the witnesses to the explosion or the community have the necessary resources to adapt. Conservative estimates by the National Institute of Mental Health report that 10% of disaster victims suffer adverse psychologic effects.<sup>4</sup> About 20% of survivors of traumatic injury that required inpatient hospitalization had symptoms of post-traumatic stress disorder (PTSD) at 12 months after the event.<sup>5</sup>

### PATHOPHYSIOLOGY

During a PTE, the sympathetic adrenal medullary axis receives sensory information from the thalamus and the amygdala and activates the hypothalamus. The central nervous system releases acetylcholine, which stimulates the adrenal medulla to release the catecholamines epinephrine, norepinephrine, and dopamine. The locus coeruleus, in the brain stem, also releases norepinephrine, which aids in the formation of fearful memories.<sup>6</sup> When a threat persists, the hypothalamic-pituitary-adrenal (HPA) axis also is activated. The cascade begins with the hypothalamus producing a corticotropin-releasing hormone. This hormone acts on the anterior pituitary to release adrenocorticotropic hormone, which acts on the adrenal cortex to secrete cortisol. The hypothalamus and hippocampus detect elevated cortisol levels, and these elevated levels shut off the stress response through a negative feedback mechanism. Studies have demonstrated that hypocortisolism, as a marker of stress-induced HPA dysfunction, may increase vulnerability to pain.<sup>7</sup> This is significant because post-trauma pain increases the risk of the development of PTSD.<sup>8</sup> Neuromodulation, or the alteration of nerve activity, affects memory consolidation. The intrusive and vivid memories some people experience following a traumatizing event can be attributed to enhanced memory consolidation and the formation of fear-conditioned responses.<sup>9</sup>

### COMMON REACTIONS

Clinicians must understand the spectrum of reactions patients might experience following exposure to a PTE. Not all who suffer symptoms will meet the criteria for PTSD and not all who experience a loss will follow the Kubler-Ross five stages of grief.<sup>10</sup> One popular alternate theory is the Dual Process Model of Grief, which posits that patients oscillate between confronting their loss and

avoiding their loss to better cope with new challenges.<sup>11</sup> This dual process model is important because encouraging patients to focus on their loss may interfere with the natural bereavement cycle.

Common reactions to trauma include:

- Cognitive—excessive or inappropriate guilt, inaccurate justifications of event, hallucinations or delusions, intrusive thoughts and memories<sup>12</sup>
- Physical—sleep disorders, nightmares, hypervigilance, agitation, trembling, generalized weakness and fatigue, anorexia, nausea, dry mouth
- Emotional—anger; sadness; fear; anxiety; feeling numb, adrift, or alone; difficulty managing extreme emotions and thoughts
- Interpersonal—withdrawal, irritability, increased conflict
- Spiritual—loss of faith, loss of purpose.<sup>3</sup>

Some victims may demonstrate shock, excitement, or altruistic behaviors. Within a few days to weeks, victims may display anger, depression, apathy, frustration, and mistrust. Victims may feel overwhelmed and exhibit indecisive behaviors.<sup>4</sup> Victims usually begin the bereavement process at this point, if they have lost a loved one.

**Complicated grief** As bereavement progresses, patients' feelings of sorrow and sadness begin to lessen, and the person begins to adjust to a new reality. Symptoms that become more intense over time and prevent patients from returning to their usual routines may indicate complicated grief. This type of grief is more likely to occur when the loss is sudden, violent, or cannot be openly acknowledged and publicly mourned.<sup>11</sup> Events that result in multiple deaths or involve children also are factors that increase the occurrence of complicated grief. *Persistent complex bereavement disorder* is defined as complicated grief lasting 6 months or more.<sup>13</sup> In patients who have been traumatized, differentiating persistent complex bereavement disorder from PTSD can be difficult, and patients should be referred for psychiatric evaluation. Patients who are using adverse coping mechanisms such as drugs or alcohol should be referred for treatment.<sup>4</sup> Ask patients about suicidal ideation and make appropriate referrals when necessary.

**Vulnerable populations** Variations occur in how different population groups respond to a PTE, with older adults and children being especially vulnerable to traumatization.<sup>2,14</sup> Patients over age 65 years may carry a lifetime of cumulative losses and have an increased attachment to their possessions.<sup>2</sup> Older adults may have sensory deprivations, increased disability, increased vulnerability to hyper/hypothermia, and delayed response times. Some patients may refuse all offers of help and yet have difficulty navigating disaster assistance programs or standing in long lines. Older victims may experience an acceleration in their physical decline, increased confusion, memory loss, and disorientation.<sup>2</sup>

Children who experience a PTE may react with fear, anxiety, and sleep disturbances.<sup>14</sup> Physical symptoms such

as headaches, nausea, sensitivity to noise, and speech problems may develop. Fear and regression are normal, and the child may want to sleep with their parents after a disaster. Remaining together can be comforting for a brief, limited time, but the family should return to a predisaster routine after a few days.<sup>14</sup> Parents and teachers can help children by reinforcing normal routines as much as possible. Parents should seek further help if their child's symptoms persist for greater than 1 month.<sup>14</sup> Adolescents may react to a PTE with withdrawal, depression, aggression, alcohol or substance abuse, stealing, or engaging in other risk-taking behaviors.<sup>14</sup>

**PTSD AND ACUTE STRESS DISORDER**

Acute stress disorder and PTSD share some symptoms and are classified individually in the *DSM-5*.<sup>13</sup> The diagnosis of these disorders falls outside the scope of this article; however, symptoms may include intrusive thoughts, negative mood, dissociation, alterations in cognition, and avoidance of stimuli.<sup>13</sup> PTSD is defined as symptoms that last for at least 1 month. Not all patients with PTSD experience symptoms initially; a delayed expression may occur 6 or more months after the event.<sup>13</sup> Acute stress disorder may be diagnosed within the first week of the event but cannot last for more than 1 month.<sup>13</sup> *DSM-5* criteria for PTSD for adults also can apply to children ages 6 years and older.<sup>13</sup> Half of all adults who receive a diagnosis of PTSD have a previous diagnosis of acute stress disorder.<sup>15</sup> Treatment of acute stress disorder has been shown to reduce the severity of chronic PTSD.<sup>16</sup>

The most recent survey by the US Department of Veterans Affairs, conducted between 2001 and 2003 on 5,692 US adults, used the *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed. (*DSM-IV*) criteria to evaluate participants for PTSD.<sup>17</sup> The survey estimated the lifetime prevalence of PTSD among US adults at 6.8% (9.7% in women, 3.6% in men). The incidence of PTSD increases

in military veterans, with an estimated lifetime prevalence of 30.9% in Vietnam War veterans, 12.1% in the Gulf War veterans, and 13.8% in Operation Enduring Freedom/Operation Iraqi Freedom veterans.<sup>17</sup> The lifetime prevalence of ASD is 19%, although the incidence varies greatly with the type of trauma.<sup>15</sup> A meta-analysis looked at 13 studies of road accident survivors and found an incidence of 15.8%.<sup>18</sup> The incidence of acute stress disorder increases to 59% in survivors of rape.<sup>19</sup>

**PREVENTING ACUTE STRESS DISORDER AND PTSD**

Following a PTE, support patients by providing comfort and practical needs, promoting safety and social connections, and sharing healthful coping and stress management strategies. Psychologic first aid, detailed below, can be performed by nonmedical providers. Other interventions including cognitive behavioral therapy with a trauma focus (CBT-TF) and eye movement desensitization and reprocessing therapy (EMDR) require a referral to a mental health provider trained in these therapies. The goal of CBT-TF is to identify the inaccurate beliefs patients have created about the trauma and develop a more balanced interpretation of the event through cognitive restructuring.<sup>20</sup> EMDR is based on a theory that PTSD occurs when a PTE is not adequately processed and stored. The patient is unable to resolve these inadequately processed memories.<sup>21</sup> During the therapy session, the patient recalls a disturbing memory and is guided by the therapist through bilateral back and forth eye movements. This stimulation lets the patient process the event, which in turn reduces the unpleasant bodily sensations associated with the memory.<sup>20</sup>

Pharmacologic interventions to prevent or reduce PTSD have been proposed since the late 1990s. Medication classes that have been evaluated include beta-blockers, benzodiazepines, selective serotonin reuptake inhibitors, opioids, glucocorticoids, and antiepileptic/anticonvulsant drugs.<sup>22</sup> Morphine, propranolol, ACE inhibitors, and cortisol have all undergone studies with mixed results.<sup>16,23,24</sup> A small study of 25 participants published in 2011 showed significantly fewer PTSD symptoms in patients who received a single-dose bolus of high-dose (100 mg to 140 mg) hydrocortisone within 6 hours following a trauma compared with patients who received a placebo.<sup>25</sup> A randomized double-blind study compared the outcomes at 1 and 3 months of 64 patients who received a 10-day plus 6-day taper of hydrocortisone (20 mg twice daily) or a placebo within 12 hours of a traumatic event.<sup>26</sup> Patients who received the low-dose hydrocortisone reported fewer PTSD symptoms, fewer signs of depression, and reported greater improvements in health-related quality of life.<sup>26</sup> Research on pharmacologic interventions in the acute phase to mitigate the negative effects of trauma is promising.<sup>16</sup> For now, hydrocortisone is the only medication mentioned for prevention of PTSD as an intervention with emerging evidence in one of the five clinical practice guidelines reviewed.<sup>27</sup>

<b>TABLE 1. Communicating with patients</b>	
Adapted from the National Child Traumatic Stress Network Psychological First Aid Course ( <a href="https://learn.nct.sn.org">https://learn.nct.sn.org</a> )	
<b>DO</b>	<b>DON'T</b>
<ul style="list-style-type: none"> <li>• Introduce yourself and explain your role</li> <li>• Provide accurate information</li> <li>• Provide physical and emotional comfort</li> <li>• Allow patients to talk in their own time</li> <li>• Allow patients to make sense of the event</li> <li>• Reassure patients that their grief reactions are understandable and normal</li> </ul>	<ul style="list-style-type: none"> <li>• Force patients to talk about the experience or their reactions</li> <li>• Probe for details</li> <li>• Share your own experiences or opinions</li> <li>• Offer false reassurances or make promises</li> <li>• Minimize or trivialize patients' experiences</li> </ul>

**Psychologic first aid** In 2010, the World Health Organization (WHO) recommended supportive, nonintrusive practical assistance for victims of trauma.<sup>28</sup> Psychologic first aid focuses on promoting calm, connectedness, and resilience and does not ask patients to discuss the event or their reactions. Instead, the focus is on patients' immediate needs, normalizing their reactions, and finding effective coping strategies.<sup>29</sup> This 6-hour course prepares volunteers and first responders without mental health experience to address the psychosocial needs of survivors in practical and supportive ways. Certification is offered free of charge through the National Child Traumatic Stress Network at <http://learn.nct.sn.org>. The eight core actions in psychologic first aid are flexible and adaptable to the situation and the individual. Trainees are guided to approach victims in a nonintrusive and compassionate manner; to offer safety, comfort, and stabilization; and to provide information and practical assistance. Effective communication strategies to use with an acutely traumatized patient are presented in the course and are summarized in **Table 1**.<sup>30</sup> Even organizations that do not support the use of psychologic first aid, such as the European Union Network for Traumatic Stress, endorse its five early intervention principles: safety, self and community efficacy, connectedness, calmness, and hope.<sup>31</sup> Healthcare providers often desire to help following a natural disaster; however, untrained volunteers can overwhelm the response team. PAs who want to volunteer should register in advance with state or federal agencies. Visit the Emergency System for Advance Registration of Volunteer Health Professionals at [www.phe.gov/esarvhp/pages/about.aspx](http://www.phe.gov/esarvhp/pages/about.aspx) for more information.

### CLINICAL PRACTICE GUIDELINES

Several clinical practice guidelines focused on the diagnosis and treatment of PTSD also address the treatment of acute stress disorder and the prevention of PTSD. The WHO published international guidelines most recently in 2013.<sup>32</sup> WHO recommends the use of psychologic first aid, stress management, the identification and strengthening of effective coping methods, and early psychologic interventions in the first month following a PTE.<sup>32</sup> In patients exhibiting acute traumatic stress symptoms, CBT-TF is recommended. The guidelines recommend avoiding benzodiazepines and antidepressants in the first month, and strongly recommend against the use of psychologic debriefing as an intervention to reduce the risk of PTSD, anxiety, or depression.<sup>32</sup> Critical incident stress debriefing originally was intended for groups responding to a disaster, and not for primary victims.<sup>33</sup> Research has shown that using this type of debriefing on individuals is harmful.<sup>33</sup> Formal debriefing is considered safe, however, when it is performed with a group of people who have been briefed before the traumatizing exposure.<sup>34</sup>

The International Society for Traumatic Stress Studies (ISTSS) published guidelines in 2018.<sup>27</sup> The ISTSS guidelines

recommend children who experience a PTE be provided self-directed online psychoeducation, along with their caregivers, as an early preventive intervention. Children and adolescents with clinically relevant post-traumatic stress symptoms should receive CBT-TF and EMDR.<sup>27</sup> In adults, CBT-TF, EMDR, structured writing intervention, and hydrocortisone administration have all shown evidence of a reduction in symptoms and improved quality of life, when given within the first 3 months following an event.<sup>27</sup>

The Phoenix Australia Centre for Posttraumatic Mental Health's guidelines recommend against psychologic debriefing, a focused retelling of event, or ventilating feelings.<sup>35</sup> Assistance should be tailored to the individual based on the severity and complexity of their need. Recommended interventions may include CBT, EMDR, and medications for depression and anxiety. The guidelines recommend further research into the use of hydrocortisone for early pharmacologic intervention for adults within the first 3 months of a traumatic event.<sup>35</sup> The National Institute for Health and Care Excellence Guidelines from the United Kingdom recommends CBT-TF within 1 month of PTE for the prevention of PTSD in children and adults with stress symptoms.<sup>29</sup>

The US Department of Veterans Affairs (VA), in collaboration with the Department of Defense, recommends CBT-TF for patients with acute stress disorder, to prevent the development of PTSD.<sup>20</sup> The authors found insufficient evidence to recommend trauma-focused psychotherapy or pharmacotherapy in the immediate post-trauma period for prevention.<sup>20</sup> The VA supports the use of psychologic first aid training for first responders, disaster relief organizations, and primary and emergency healthcare providers.<sup>30</sup>

### SCREENING IN PRIMARY CARE

A patient who presents 3 or more days after a PTE (but within 30 days) may be diagnosed with ASD if they report nine or more of the symptoms from any of the five categories of intrusion, negative mood, dissociation, avoidance, and arousal.<sup>13</sup> The disturbance must cause clinically significant distress or impairment in function and must not be attributable to another medical condition or substance use. The ASD scale was a previously used screening test based on the *DSM-IV* criteria; no validated screening tests exist for ASD based on *DSM-V* criteria. Several screening tests for PTSD are available for patients presenting at least 4 weeks after a PTE.<sup>36</sup> The Primary Care PTSD Screen for *DSM-5* (PC-PTSD-5) consists of five yes-or-no questions about the patient's symptoms over the last month.<sup>36</sup> The SPAN is a four-item self-report screening test that ranks patient distress with the symptoms of startle, physically upset by reminders, anger, and numbness; a score of 5 or more is positive.<sup>36</sup> Patients are asked to rank their distress for each item on a scale from zero to 4.<sup>36</sup>

A third screening tool is the Trauma Screening Questionnaire (TSQ).<sup>36</sup> This 10-item screen asks patients to mark

**TABLE 2. Resources**

- SAMHSA Disaster Distress Helpline—800-985-5990, for people experiencing emotional distress following a disaster
- Disaster Technical Assistance Center—[www.samhsa.gov/dtac](http://www.samhsa.gov/dtac)
- Center for the Study of Traumatic Stress—[www.cstsonline.org](http://www.cstsonline.org)
- National Child Traumatic Stress Network—[www.nctsn.org](http://www.nctsn.org)
- Emergency System for Advanced Registration of Volunteer Health Professionals (ESAR-VHP)—[www.phe.gov/esarvhp/Pages/about.aspx](http://www.phe.gov/esarvhp/Pages/about.aspx)
- Medical Reserve Corps (volunteer)—[www.phe.gov](http://www.phe.gov)
- Psychologic First Aid—<https://learn.nctsn.org>

symptoms they have experienced at least twice in the past week. A score of 6 or more is positive. Patients who have positive findings on a screening examination should be referred to mental health for further evaluation.

### FACTORS AFFECTING OUTCOMES

Twice as many women as men develop PTSD.<sup>37</sup> Belonging to a sexual-identity minority group, or having experienced psychopathology related to a previous trauma also increases patient risk.<sup>37</sup> Trauma type and severity correlate with incidence of PTSD with an increased occurrence in victims of sexual assault, and those who perceive a threat to one's life. Cognitive inflexibility and a lack of social support also led to an increased prevalence of PTSD.<sup>37</sup>

The ability to bounce back from a PTE is known as resilience. Resiliency is best viewed as a continuum and a patient's capacity can change over time.<sup>38</sup> Resilient people work through feelings of grief, sadness, and other emotions and rebuild their lives. People who adapt and recover from PTE share some common characteristics.<sup>38</sup> They have secure social connections and are generous to others in need. They have good problem-solving skills and successfully manage strong feelings and impulses. They adopt healthful coping behaviors while avoiding maladaptive ones. Coping styles that increase stress symptoms include avoidant behaviors, rumination, increased use of drugs or alcohol, and frequent viewing of media coverage of the event. Healthful coping behaviors include stress reduction techniques such as prayer, meditation, yoga, breathing exercises, and physical activity.<sup>38</sup>

### CONCLUSION

Clinicians who understand the traumatization process are better prepared to assist their patients in making healthful choices following a PTE. Patients with symptoms consistent with acute stress disorder may benefit from psychologic first aid and CBT-TF within the first month. Recommendations are mixed on the value of EMDR or the administration of hydrocortisone after a trauma. Most clinical practice guidelines recommend not starting medications for anxiety or depression within the first month of a PTE. Encourage coping strategies that promote safety, calmness, hope, self-efficacy, and social connectedness. Patients who

endure a PTE may experience acute and intense stress reactions, but most recover without interventions.<sup>4,37</sup> Patients who are exhibiting symptoms of complicated grief, depression, suicidal ideation, or substance abuse should be referred to psychiatry. Many resources are available online to help healthcare providers and patients (Table 2). Encouraging patients to adopt healthful coping strategies can promote the resiliency they need to recover from a PTE. **JAAPA**

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