Posttraumatic Stress Disorder: An Overview

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A brief history of the PTSD diagnosis

The risk of exposure to trauma has been a part of the human condition since we evolved as a species. Attacks by saber tooth tigers or twenty-first century terrorists have probably produced similar psychological sequelae in the survivors of such violence. Shakespeare's Henry IV appears to meet many, if not all, of the diagnostic criteria for Posttraumatic Stress Disorder (PTSD), as have other heroes and heroines throughout the world's literature. The history of the development of the PTSD concept is described by Trimble 1.

In 1980, the American Psychiatric Association added PTSD to the third edition of its Diagnostic and Statistical Manual of Mental Disorders (DSM-III) nosologic classification scheme. Although controversial when first introduced, the PTSD diagnosis has filled an important gap in psychiatric theory and practice. From an historical perspective, the significant change ushered in by the PTSD concept was the stipulation that the etiological agent was outside the individual (i.e., a traumatic event) rather than an inherent individual weakness (i.e., a traumatic neurosis). The key to understanding the scientific basis and clinical expression of PTSD is the concept of "trauma."

In its initial DSM-III formulation, a traumatic event was conceptualized as a catastrophic stressor that was outside the range of usual human experience. The framers of the original PTSD diagnosis had in mind events such as war, torture, rape, the Nazi Holocaust, the atomic bombings of Hiroshima and Nagasaki, natural disasters (such as earthquakes, hurricanes, and volcano eruptions), and human-made disasters (such as factory explosions, airplane crashes, and automobile accidents). They considered traumatic events to be clearly different from the very painful stressors that constitute the normal vicissitudes of life such as divorce, failure, rejection, serious illness, financial reverses, and the like. (By this logic, adverse psychological responses to such "ordinary stressors" would, in DSM-III terms, be characterized as Adjustment Disorders rather than PTSD.) This dichotomization between traumatic and other stressors was based on the assumption that, although most individuals have the ability to cope with ordinary stress, their adaptive capacities are likely to be overwhelmed when confronted by a traumatic stressor.

PTSD is unique among psychiatric diagnoses because of the great importance placed upon the etiological agent, the traumatic stressor. In fact, one cannot make a PTSD diagnosis unless the patient has actually met the "stressor criterion," which means that he or she has been exposed to an historical event that is considered traumatic. Clinical experience with the PTSD diagnosis has shown, however, that there are individual differences regarding the capacity to cope with catastrophic stress. Therefore, while some people exposed to traumatic events do not develop PTSD, others go on to develop the full-blown syndrome. Such observations have prompted the recognition that trauma, like pain, is not an external phenomenon that can be completely objectified. Like pain, the traumatic experience is filtered through cognitive and emotional processes before it can be appraised as an extreme threat. Because of individual differences in
this appraisal process, different people appear to have different trauma thresholds, some more protected from and some more vulnerable to developing clinical symptoms after exposure to extremely stressful situations. Although there is currently a renewed interest in subjective aspects of traumatic exposure, it must be emphasized that events such as rape, torture, genocide, and severe war zone stress are experienced as traumatic events by nearly everyone.

The DSM-III diagnostic criteria for PTSD were revised in DSM-III-R (1987), DSM-IV (1994), and DSM-IV-TR (2000). A very similar syndrome is classified in ICD-10 (The ICD-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic Guidelines). Diagnostic criteria for PTSD include a history of exposure to a traumatic event and symptoms from each of three symptom clusters: intrusive recollections, avoidant/numbing symptoms, and hyper-arousal symptoms. A fifth criterion concerns duration of symptoms. One important finding, which was not apparent when PTSD was first proposed as a diagnosis in 1980, is that it is relatively common. Recent data from the national comorbidity survey indicates PTSD prevalence rates are 5% and 10% respectively among American men and women. Rates of PTSD are much higher in postconflict settings such as Algeria (37%), Cambodia (28%), Ethiopia (16%), and Gaza (18%).

### Criteria for a PTSD diagnosis

As noted above, the "A" stressor criterion specifies that a person has been exposed to a catastrophic event involving actual or threatened death or injury, or a threat to the physical integrity of him/herself or others. During this traumatic exposure, the survivor's subjective response was marked by intense fear, helplessness, or horror.

The "B", or intrusive recollection, criterion includes symptoms that are perhaps the most distinctive and readily identifiable symptoms of PTSD. For individuals with PTSD, the traumatic event remains, sometimes for decades or a lifetime, a dominating psychological experience that retains its power to evoke panic, terror, dread, grief, or despair. These emotions manifest in daytime fantasies, traumatic nightmares, and psychotic reenactments known as PTSD flashbacks. Furthermore, trauma-related stimuli that trigger recollections of the original event have the power to evoke mental images, emotional responses, and psychological reactions associated with the trauma. Researchers can use this phenomenon to reproduce PTSD symptoms in the laboratory by exposing affected individuals to auditory or visual trauma-related stimuli.

The "C", or avoidant/numbing, criterion consists of symptoms that reflect behavioral, cognitive, or emotional strategies PTSD patients use in an attempt to reduce the likelihood that they will expose themselves to trauma-related stimuli. PTSD patients also use these strategies in an attempt to minimize the intensity of their psychological response if they are exposed to such stimuli. Behavioral strategies include avoiding any situation in which they perceive a risk of confronting trauma-related stimuli. In its extreme manifestation, avoidant behavior may superficially resemble agoraphobia because the PTSD individual is afraid to leave the house for fear of confronting reminders of the traumatic event(s). Dissociation and psychogenic amnesia are included among the avoidant/numbing symptoms and involve the individuals cutting off the conscious experience of trauma-based memories and feelings. Finally, since individuals with PTSD cannot tolerate strong emotions, especially those associated with the traumatic experience, they separate the cognitive from the emotional aspects of psychological experience and perceive
only the former. Such "psychic numbing" is an emotional anesthesia that makes it extremely difficult for people with PTSD to participate in meaningful interpersonal relationships.

Symptoms included in the "D", or hyper-arousal, criterion most closely resemble those seen in panic and generalized anxiety disorders. While symptoms such as insomnia and irritability are generic anxiety symptoms, hyper-vigilance and startle are more characteristic of PTSD. The hyper-vigilance in PTSD may sometimes become so intense as to appear like frank paranoia. The startle response has a unique neurobiological substrate and may actually be the most pathognomonic PTSD symptom.

The "E", or duration, criterion specifies how long symptoms must persist in order to qualify for the (chronic or delayed) PTSD diagnosis. In DSM-III, the mandatory duration was six months. In DSM-III-R, the duration was shortened to one month, which it has remained.

The "F", or functional significance, criterion specifies that the survivor must experience significant social, occupational, or other distress as a result of these symptoms.

**Assessing PTSD**

Since 1980, there has been a great deal of attention devoted to the development of instruments for assessing PTSD. Keane and associates 4, working with Vietnam war-zone veterans, have developed both psychometric and psychophysiological assessment techniques that have proven to be both valid and reliable. Other investigators have modified such assessment instruments and used them with natural disaster victims, rape/incest survivors, and other traumatized individuals. These assessment techniques have been used in the epidemiological studies mentioned above and in other research protocols.

Neurobiological research indicates that PTSD may be associated with stable neurobiological alterations in both the central and autonomic nervous systems. Psychophysiological alterations associated with PTSD include hyper-arousal of the sympathetic nervous system, increased sensitivity and augmentation of the acoustic-startle eye blink reflex, and sleep abnormalities. Neuropharmacologic and neuroendocrine abnormalities have been detected in most brain mechanisms that have evolved for coping, adaptation, and preservation of the species. These include the noradrenergic, hypothalamic-pituitary-adrenocortical, serotonergic, glutamatergic, thyroid, endogenous opioid, and other systems. Structural brain imaging suggests reduced volume of the hippocampus and anterior cingulated. Functional brain imaging suggests excessive amygdala activity and reduced activation of the prefrontal cortex. This information is reviewed extensively elsewhere 5.

Longitudinal research has shown that PTSD can become a chronic psychiatric disorder and can persist for decades and sometimes for a lifetime. Patients with chronic PTSD often exhibit a longitudinal course marked by remissions and relapses. There is also a delayed variant of PTSD in which individuals exposed to a traumatic event do not exhibit the PTSD syndrome until months or years afterward. Usually, the immediate precipitant is a situation that resembles the original trauma in a significant way (for example, a war veteran whose child is deployed to a war zone or a rape survivor who is sexually harassed or assaulted years later).

If an individual meets diagnostic criteria for PTSD, it is likely that he or she will meet
DSM-IV-TR criteria for one or more additional diagnoses. Most often, these comorbid diagnoses include major affective disorders, dysthymia, alcohol or substance abuse disorders, anxiety disorders, or personality disorders. There is a legitimate question whether the high rate of diagnostic comorbidity seen with PTSD is an artifact of our current decision-making rules for the PTSD diagnosis since there are not exclusionary criteria in DSM-III-R. In any case, high rates of comorbidity complicate treatment decisions concerning patients with PTSD since the clinician must decide whether to treat the comorbid disorders concurrently or sequentially.

Although PTSD continues to be classified as an Anxiety Disorder, areas of disagreement about its nosology and phenomenology remain. Questions about the syndrome itself include: what is the clinical course of untreated PTSD; are there different subtypes of PTSD; what is the distinction between traumatic simple phobia and PTSD; and what is the clinical phenomenology of prolonged and repeated trauma? With regard to the latter, Herman has argued that the current PTSD formulation fails to characterize the major symptoms of PTSD commonly seen in victims of prolonged, repeated interpersonal violence such as domestic or sexual abuse and political torture. She has proposed an alternative diagnostic formulation that emphasizes multiple symptoms, excessive somatization, dissociation, changes in affect, pathological changes in relationships, and pathological changes in identity.

PTSD has also been criticized from the perspective of cross-cultural psychology and medical anthropology, especially with respect to refugees, asylum seekers, and political torture victims from non-Western regions. Clinicians and researchers working with such survivors argue that since PTSD has usually been diagnosed by clinicians from Western industrialized nations working with patients from a similar background, the diagnosis does not accurately reflect the clinical picture of traumatized individuals from non-Western traditional societies and cultures. Major gaps remain in our understanding of the effects of ethnicity and culture on the clinical phenomenology of posttraumatic syndromes. We have only just begun to apply vigorous ethnocultural research strategies to delineate possible differences between Western and non-Western societies regarding the psychological impact of traumatic exposure and the clinical manifestations of such exposure.

**Treatment for PTSD**

The many therapeutic approaches offered to PTSD patients are presented in Foa, Keane, and Friedman's comprehensive book on treatment. The most successful interventions are cognitive-behavioral therapy (CBT) and medication. Excellent results have been obtained with some CBT combinations of exposure therapy and cognitive restructuring, especially with female victims of childhood or adult sexual trauma. Sertraline (Zoloft) and paroxetine (Paxil) are selective serotonin reuptake inhibitors (SSRI) that are the first medications to have received FDA approval as indicated treatments for PTSD. Success has also been reported with Eye Movement Desensitization and Reprocessing (EMDR), although rigorous scientific data are lacking and it is unclear whether this approach is as effective as CBT.

A frequent therapeutic option for mildly to moderately affected PTSD patients is group therapy, although empirical support for this is sparse. In such a setting, the PTSD patient can discuss traumatic memories, PTSD symptoms, and functional deficits with others who have had similar experiences. This approach has been most successful with war veterans, rape/incest victims, and
natural disaster survivors. It is important that therapeutic goals be realistic because, in some cases, PTSD is a chronic and severely debilitating psychiatric disorder that is refractory to current available treatments. The hope remains, however, that our growing knowledge about PTSD will enable us to design interventions that are more effective for all patients afflicted with this disorder.

There is great interest in rapid interventions for acutely traumatized individuals, especially with respect to civilian disasters, military deployments, and emergency personnel (medical personnel, police, and firefighters). This has become a major policy and public health issue since the massive traumatization caused by the September 11 terrorist attacks on the World Trade Center, Hurricane Katrina, the Asian Tsunami, and the current wars in Iraq or Afghanistan. Currently, there is controversy about which interventions work best during the immediate aftermath of a trauma. Research on critical incident stress debriefing (CISD), an intervention used widely, has brought disappointing results with respect to its efficacy to attenuate posttraumatic distress or to forestall the later development of PTSD. The National Center for PTSD and the National Center for Child Traumatic Stress have recently developed an alternative early intervention, Psychological First Aid, that is available online at http://www.ncptsd.va.gov/pfa/PFA.html. Promising results have been shown with brief cognitive-behavioral therapy.

References


Related Reading

- DSM-IV-TR criteria for PTSD
- Comparison of the ICD-10 PTSD Diagnosis with the DSM-IV Criteria
- Posttraumatic Stress Clinical Guideline: VA/DoD