



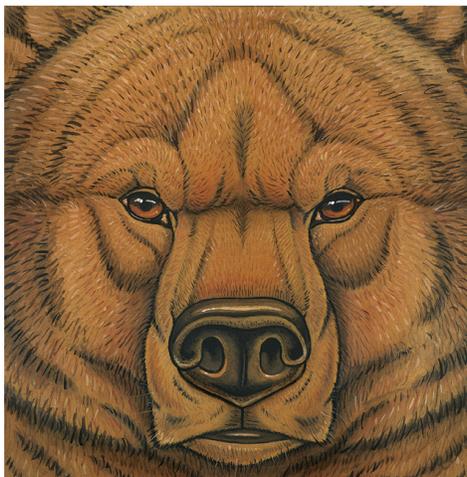
Post Traumatic Stress Disorder

PMH601 Foundations of Advanced Practice Psychiatric Nursing

Uniformed Services University of the
Health Sciences, Graduate School of
Nursing, P-MH Department



How to explain to the patient...



Content

- History
- Epidemiology
- Comorbidity
- Etiology
- Risk Factor Identification
- Psychodynamic Factors
- Cognitive-Behavior Factors
- Biological Factors
- Diagnosis
- Clinical Features
- Presentation Across the Lifespan
- Differential Diagnosis
- Course & Prognosis
- Treatment

History

- Civil War era “Soldier’s Heart” (AKA *Da Costa’s Syndrome*) and “Irritable Heart” circa 1871
- Early 1900’s conceptualization of “traumatic neurosis”
- World War I era “shell shock”
- Coconut Grove fire of 1941
- World War II “combat neurosis” and “operational fatigue”
- Vietnam era conceptualization of PTSD



Epidemiology

- Lifetime incidence of PTSD \simeq 9 - 15%
- Lifetime prevalence \simeq 8% of general population
- With high risk groups \simeq prevalence ranges between 5 – 75%
- Lifetime prevalence: Women: 10–12%, Men: 5-6%
- Most prevalent with young adults who are single, divorced, widowed, socially withdrawn, or of low socioeconomic level

Comorbidity

- Depressive Disorders
- Substance Related Disorders
- Other Anxiety Disorders
- Bipolar Disorders
- Personality Disorders

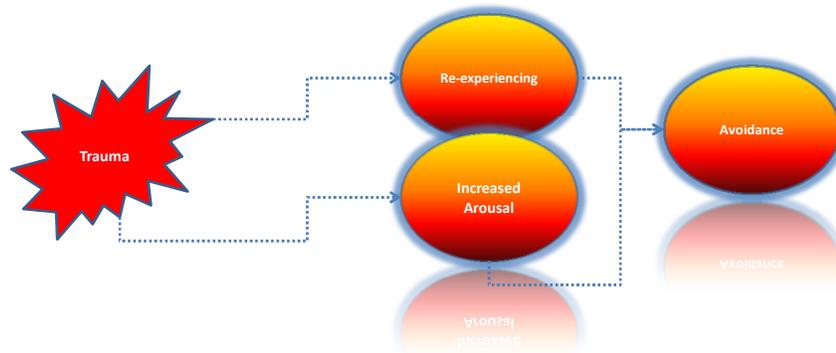
Psychodynamic Themes in PTSD

- Subjective interpretation of “stressor”
- Recapitulation of traumatic childhood
- Inability to regulate affect as a consequence of trauma
- Somatization and alexithymia as a sequelae of trauma (specifically avoidance cluster)
- Common defenses of denial, minimization, splitting, projection, dissociation, and guilt
- Object relation associated with trauma triangle

Psychodynamic Model of PTSD

- Trauma reactivates past (*unresolved*) psychological conflict
- Reactivation of childhood trauma results in regression
- Regression promotes development of defense mechanisms
- The ego relives and thereby tries to master and reduce the anxiety

Cognitive Model of PTSD



Biological Factors

- Noradrenergic System
- Dopamine
- Endogenous Opioids
- Benzodiazepine Receptors
- Hypothalamic-pituitary-adrenal (HPA) axis
- Autonomic Dysregulation

Noradrenergic System

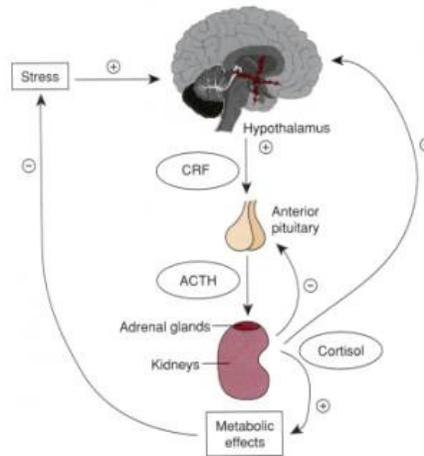
- Increased arousal cluster generates autonomic reaction (e.g. nervousness, hypertension, tachycardia, palpitations, diaphoresis, flushing, and tremors).
- Studies find increased 24-hour urine epinephrine concentrations in veterans with PTSD and sexually abused girls.
- Studies find platelet, lymphocyte and adrenergic receptors are downregulated in PTSD (chronic elevation in catecholamine concentrations).
- \approx 30-40 % those with PTSD report flashbacks after Yohimbine (Yocon) administration. Such findings are strong evidence for altered function in the noradrenergic system in PTSD.

Opioid System

- Abnormality in the opioid system is suggested by low plasma endorphin concentrations in PTSD.
- Combat veterans with PTSD demonstrate a naloxone (Narcan) reversible analgesic response to combat-related stimuli, raising the possibility of opioid system hyper regulation similar to that in the HPA axis.
- One study showed that nalmefene (Revex), an opioid receptor antagonist, was of use in reducing symptoms of PTSD in combat veterans.

Hypothalamic-pituitary-adrenal axis

- Complex set of direct influences and feedback interactions between the **hypothalamus**, the **pituitary gland**, and the **adrenal glands**
- controls reactions to stress
- regulates digestion, immune system, mood and emotions, sexuality, and energy storage and expenditure.



Proposed Pathophysiology

- The release of cortisol via hypothalamus is influenced by many variables (e.g. stress, activity, illness, serum cortisol levels, circadian rhythm)
- Sensory information enters the amygdala is processed and conveyed to the central nucleus, which in turn projects out to several other regions of the brain associated with fear response.
- Increased production of cortisol mediates alarm reactions to stress, facilitating a general adaptation syndrome in which alarm reactions including the immune response are suppressed, allowing the body to attempt countermeasures.
- Glucocorticoids have many important functions, including modulation of stress reactions, but in excess they can be damaging. Atrophy of the hippocampus in humans and animals exposed to severe stress is believed to be caused by prolonged exposure to high concentrations of glucocorticoids. Deficiencies of the hippocampus may reduce the memory resources available to help a body formulate appropriate reactions to stress.

Diagnostic Criteria

- The person has been exposed to a traumatic event in which both of the following were present:
 - the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others
 - the person's response involved intense fear, helplessness, or horror.
Note: In children, this may be expressed instead by disorganized or agitated behavior.

Diagnostic Criteria (cont.)

- The traumatic event is persistently re-experienced in one (or more) of the following ways:
 - recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions.
 - recurrent distressing dreams of the event.
 - acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated).
 - intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event
 - physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

Diagnostic Criteria (cont.)

- Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:
 - efforts to avoid thoughts, feelings, or conversations associated with the trauma
 - efforts to avoid activities, places, or people that arouse recollections of the trauma
 - inability to recall an important aspect of the trauma
 - markedly diminished interest or participation in significant activities
 - feeling of detachment or estrangement from others
 - restricted range of affect (e.g., unable to have loving feelings)
 - sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)

Diagnostic Criteria (cont.)

- Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:
 - difficulty falling or staying asleep
 - irritability or outbursts of anger
 - difficulty concentrating
 - hypervigilance
 - exaggerated startle response
- Duration of the disturbance (symptoms in Criteria B, C, and D) is more than 1 month.
- The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- *Specify if:*
 - Acute:** if duration of symptoms is less than 3 months
 - Chronic:** if duration of symptoms is 3 months or more
- *Specify if:*
 - With delayed onset:** if onset of symptoms is at least 6 months after the stressor

Presentation Across Lifespan

- PTSD occurs in children and adolescents, but most studies of the disorder have focused on adults.
- High rates of PTSD have been documented in children exposed to such life-threatening events as combat and other war-related trauma, kidnapping, severe illness or burns, bone marrow transplantation, and natural/man made disasters.
- Studies on young victims or witnesses to criminal assault, domestic violence, and community violence have revealed high psychiatric morbidity following exposure to violence.
- As might be expected, the prevalence of PTSD is higher in children than in adults exposed to the same stressor. In certain situations, up to 90 percent of children will develop the disorder.
- Child risk factors include demographic factors (e.g., age, sex, socioeconomic status), other life events (positive and negative), social and cultural cognitions, psychiatric comorbidity, and inherent coping strategies.
- Family factors (e.g., parental psychopathology and functioning, marital status, and education) play key roles in determining symptoms of a child. Parents' responses to traumatic events particularly influence young children who may not completely understand the nature of the trauma or its inherent danger.

Other Origins

- Gulf War Syndrome
- 9/11
- GWOT: OIF, OEF
- Natural Disasters

Differential Diagnosis

- TBI
- Substance Related Disorder
- Other Anxiety Disorders
- Personality Disorder
- Depressive Disorder
- Factitious Disorder
- Dissociative Disorder
- Malingering

Course and Prognosis

- Post Trauma, although it can be delayed
- Symptoms fluctuate over time
- Untreated, \approx 30 percent of patients recover completely, 40 percent continue to have mild symptoms, 20 percent continue to have moderate symptoms, and 10 percent remain unchanged or become worse.
- After 1 year, \approx 50 percent of patients will recover. A good prognosis is predicted by rapid onset of the symptoms, short duration of the symptoms (less than 6 months), good premorbid functioning, strong social supports, and the absence of other psychiatric, medical, or substance-related disorders or other risk factors.
- For example, about 80 percent of young children who sustain a burn injury show symptoms of PTSD 1 or 2 years after the initial injury; only 30 percent of adults who suffer such an injury have a PTSD after 1 year.
- Presumably, young children do not yet have adequate coping mechanisms to deal with the physical and emotional insults of the trauma. Likewise, older persons are likely to have more rigid coping mechanisms than younger adults and to be less able to muster a flexible approach to dealing with the effects of trauma.
- PTSD that is comorbid with other disorders is often more severe and perhaps more chronic and may be difficult to treat.

Treatment

- Preclinical
 - Group cohesion
 - Mental Health Promotion
 - Mental Illness Prevention
- Clinical
 - Psychotherapy
 - Protocol Work (CPT, PE, EMDR)
 - Psychotropics
 - Tincture of time