POSTTRAUMATIC STRESS DISORDER: EVIDENCE BASED ADVANCES.

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Abstract

Posttraumatic stress disorder classified as an anxiety disorder. In which occur severe condition that may develop after a person is exposed to one or more traumatic events, such as sexual assault, serious injury or the threat of death. The characteristic symptoms are considered Acute if lasting less than three months, Chronic if persisting three months or more, and With Delayed Onset if the symptoms first occur after six months or some years later. Co morbid psychiatric diagnoses are present in up to 80% of patients. Major depressive disorder (MDD) is among both men and women, affecting nearly 50%. Alcohol abuse and conduct disorder (over 40%) are also highly co morbid in men.

Keyword Posttraumatic stress disorder

Introduction

Posttraumatic stress disorder is a severe condition that may develop after a person is exposed to one or more traumatic events, such as sexual assault, serious injury or the threat of death.[1]

Overview

In the early 19th century, military doctors started diagnosing soldiers with exhaustion after the stress of battle. This exhaustion was characterized by mental shutdown due to individual or group trauma. Prior to the 20th century, soldiers were expected always to be emotionally tough and show no fear in the midst of combat. The only treatment for this exhaustion was to relieve the afflicted from frontline duty until symptoms subsided and then they would return to battle. During the intense and frequently repeated stress, the soldiers became fatigued as a part of their body's natural shock reaction.

The psychopathological effect to traumatic events has long been recognised, particularly in the context of war. Descriptions of the emotional sequelae of combat date back to thousand of years as revealed, for example, in the epic account of Achilles in Homer's Illiad. Modern wars have engendered their own unique labels for these sequelae, for example, "nostalgia" or "combat neurosis"(Civil War), ""shell shock"(World War 1), "battle fatigue" or "combat neurosis"(World War 11), and delayed stress (Vietnam War). However, stress disorders were largely ignored as a formal psychiatric nosological category and were relegated to "transient" phenomena until the publication of the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-111) in 1980. It is now recognised as a major psychiatric disorder with social and occupational impairment.

9/11/2001

On September 11, 2001, a terrorist activity destroyed the World Trade Center in New York City and damaged the Pentagon in Washington. It resulted in more than 3500 deaths and injuries and left many citizens in need of therapeutic intervention. One survey found a prevance of 11.4% for PTSD and 9.7% for depression in US citizens 1 month after 9/11. As of 2004, it is estimated that more than 25000 people continue to suffer from symptoms of PTSD related to the 9/11 attacks beyond the 1 year mark.

Iraq and Afghanistan

In October 2001, the United States, along with Australia, Canada, and the United Kingdom, began the invasion of Afghanistan in the wake of the September 11, 2001 attacks. On March 20, 2003, US forces, along with allies, invaded Iraq, marking the beginning of the Iraq War. Both wars are ongoing and PTSD is a rising problem with an estimated 17 percent of returning soldiers having PTSD. The rate of PTSD is higher in women soldiers. Women account for 11 percent of those who served in Iraq and Afghanistan and for14 percent of patients at Veterans Affairs hospitals and clinics. Women soldiers are more likely to seek help than men soldiers.

Prevalence

The National Co morbidity Survey Replication (NCS-R) conducted between February 2001 and April 2003, estimated the lifetime prevalence of PTSD among adult Americans to be 6.8%. The lifetime prevalence of PTSD among men was 3.6% and among women was 9.7%.

To date, no population based epidemiological study has examined the prevalence of PTSD among children. However, studies have examined the prevalence of PTSD among high-risk children who have experienced specific traumatic events, such as abuse or natural disasters. Prevalence estimates from studies of this type vary greatly. However, research indicates that children exposed to traumatic events may have a higher prevalence of PTSD than adults in the general population.[2] In general, the estimates for lifetime PTSD prevalence range from a low of 0.3% in China to 6.1% in New

Zealand.

The Asian earthquake and subsequent tsunami of December 2004, one of the largest natural disasters in recent history resulted in the deaths of over 250,000 people and massive destruction in 8 countries. One area particularly affected by this disaster was Southern India. A survey conducted revealed a prevalence of 70.7% for acute PTSD and 10.9% for delayed onset PTSD. PTSD was more prevalent among girls and more severe among adolescents exposed to loss of life or property.[3]

Neurobiology

Abnormalities in the hypothalamic-pituitary-adrenal axis, including hypocortisolaemia and super suppression in the dexamethasone suppression test, the opposite to that seen in the dexamethasone suppression test, the opposite to that seen in depression, together with abnormalities in regional blood flow in the basal ganglia and orbit frontal cortex, as seen in obsessive compulsive disorder, have been found, as have increased noradrenergic and serotonergic central activity.

Reduced hippocampal volume was reported in posttraumatic stress disorder in Vietnam veterans. The hippocampus mediates conscious memory, inclusive of traumatic events, while the amygdala mediates unconscious memories, for example autonomic aspects of trauma. Decreased medial prefrontal and anterior cingulated areas have been found in neuroimaging studies, which correlate with increased activity in the amygdala, resulting in hypersensitivity to external threats, which is seen in posttraumatic stress disorder.[4]

Risk Factors

1. Presence of childhood trauma
2. Borderline, antisocial, dependent or paranoid personality traits.
3. Inadequate family or peer relationships
4. Being female
5. Genetic vulnerability to psychiatric disorders
6. Recent stressful life events
7. Perception of an external locus of control (natural cause) rather than an internal one (human one).
8. Recent excessive alcohol intake

Classification

Posttraumatic stress disorder is classified as an anxiety disorder.

The characteristic symptoms are considered **Acute** if lasting less than three months, **Chronic** if persisting three months or more, and **With Delayed Onset** if the symptoms first occur after six months or some years later.

PTSD is distinct from the briefer acute stress disorder.[5]

Comorbidity

Co morbid psychiatric diagnoses are present in up to 80% of patients.

Major depressive disorder (MDD) is among the most common of co-morbid conditions for both men and women, affecting nearly 50%. Alcohol abuse (in the majority) and conduct disorder (over 40%) are also highly co morbid in men. Additionally, there is a threefold to sevenfold increased risk for both men and women to be diagnosed with other anxiety disorders, including, generalized anxiety disorder (GAD), panic disorder, and specific phobias. Most studies have failed to find an increased risk of MDD or drug abuse for trauma-exposed individuals who are not diagnosed with PTSD.[6] The same has been found for alcohol abuse or dependence in males, but not females. This suggests that MDD and substance abuse (with the exception of alcohol abuse in women) are not likely to be psychiatric conditions that independently occur outside of PTSD in response to trauma; rather they appear more likely either to be the result of PTSD or to share antecedent genetic or environmental factors.

Prognosis

Recovery from PTSD appears to be most pronounced within the first year following trauma exposure. Large scale epidemiological studies suggest a remission rate of approximately 25% at 6months and 40% at 1 year.[7] Regardless of treatment, more than 30% of individuals diagnosed with PTSD appear never to remit. If PTSD remission has not occurred within 6 to 7 years after the trauma, the chance for significant recovery thereafter appears to be quite small.[8] An estimated 10% to 15% of all Vietnam combat veterans, and nearly 30% of those with high or very high combat exposure, were found to have PTSD 12 years following the cessation of combat.[9] Twenty-eight percent of adult survivors of the Buffalo Creek flood failed to show remission from PTSD after 14 years. Many of the risk factors for the development of PTSD also appear to be relevant to increased risk for a chronic course (eg co morbidity, multiple trauma exposures, negative social support and trauma severity). In addition, the presence and intensity of avoidance and numbing symptoms may specifically predispose towards a chronic, rather than a remitting course of illness in PTSD.[10]

In the majority of cases, the appearance of PTSD occurs shortly following traumatic exposure. Approximately 94% of rape victims meet the full PTSD symptom criteria 1 week following the traumatic event.[11]

In prisoners of war from World War 11 and the Korean War, increased rates of PTSD have been observed in older veterans as they age, with over 10% reporting an increase in PTSD symptoms some

40 years following discharge from the war despite having experienced relative remission during the preceding 25 to 30 years.[12]

Management

Central to most treatment approaches is the rehearsal of the trauma story, either in a cognitive-behavioural approach, which may include imaginal or in vivo exposure and may be combined with adjunctive anxiety management, or in a technique called testimony. The aim is to rehearse the trauma and reawaken associated emotions, but in a way that can be tolerated and processed without leading to avoidance. Verbal recall represents behavioural exposure to a traumatic event, and the aim is to achieve habituation to it. Audiotape desensitisation using the individual's own account of the trauma may also be of value.

For survivors of torture, the pain is often compounded by guilt and fear, for instance over actions they may have been forced to carry out. They are encouraged to reframe their thinking and to see that such actions were due not to their betrayal of others but to the conditions to which they were subjected.

In the UK, NICE has made recommendations for sequential treatment in primary and secondary care settings and recommended either a CBT approach or eye movement desensitisation processing (EMDR). EMDR involves involves rapid and rhythmic eye movements induced by the patient visually tracking the therapist's finger moving back and forward for about 20 s, during which time the patient focuses on the traumatic image and associated negative emotions, sensations and thoughts. Once the distress begins to reduce, reference to positive thoughts for the event are encouraged. However, eye movement may not, in fact be necessary, with the procedure merely inducing desensitisation.[13] Antidepressant medication, although not recommended as a routine first-line treatment, has also been found to be effective in the management of post-traumatic stress disorder, treating the commonly associated depression, facilitating sleep and reducing intrusive memories. SSRIs at high doses for 5-8 weeks have been cited as especially beneficial.

Tricyclic antidepressants help the intrusive symptoms of anxiety and depression. However, the MAOI phenelzine may be better than the tricyclic imipramine. Response may be delayed for up to 8 weeks. NICE recommends the noradrenergic and specific serotonergic antidepressant (NaSSA) mirtazapine or the SSRI paroxetine.

Benzodiazepines should be avoided because of their high dependency potential, especially in the first 2 weeks following the trauma, as their use may interfere with the memory processing necessary to reduce symptoms.

Hospital disaster plans should take into account the psychological responses of the victims.

Controversies and Future Directions

Is the incidence of PTSD overestimated? A recent reanalysis of data from the National Vietnam Veterans Readjustment Survey published in Science reduced the original lifetime incidence of PTSD from 31% to 19%, a two- fifths reduction. Will downward adjustments of other PTSD incidence rates follow?

Is PTSD a discrete category, or is it at the far end of a posttraumatic symptom severity spectrum? Preliminary taxometric research supports the latter. Will this call for abandoning the categorical PTSD diagnosis in favour of a dimensional approach?

Do mental disorders co-morbid with PTSD represent different facets of the same, traumatically acquired psychopathological condition, or discrete entities that share risk with PTSD?

Data are available regarding the incidence of suicide attempts in PTSD, but what is the rate of completed suicide?

In validating biological measures in PTSD research, the gold standard is the interview-based diagnosis. Will it eventually become the other way around, as more is learned about the brain basis of this disorder?

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