

Department of Psychology, University of Stirling, UK

**ABSTRACT:**

*Post-Traumatic Stress Disorder (PTSD) is a severe mental health condition that emerges following exposure to traumatic events such as violence, accidents, or natural disasters. It is characterized by persistent re-experiencing of the traumatic event through flashbacks, nightmares, and intrusive thoughts, coupled with heightened arousal and avoidance behaviors. The mechanisms behind PTSD involve complex interactions between genetic predisposition, neurobiological responses, and environmental factors. This disorder has a profound impact on the psychological, emotional, and social well-being of affected individuals. PTSD is often comorbid with other mental health issues, including depression and anxiety, further complicating treatment. However, recent advancements in therapeutic interventions, including Cognitive-Behavioral Therapy (CBT) and pharmacotherapy, have shown promising results in alleviating symptoms and improving quality of life. This article explores the pathophysiology of PTSD, its consequences, and current treatment modalities, providing insights for better understanding and management of the condition.*

Trauma, Neurobiology, Cognitive-behavioral therapy, Mental health treatment

It is a psychiatric condition that can develop after an individual experiences or witnesses a traumatic event. It is characterized by intrusive memories of the event, heightened anxiety, emotional numbness, and avoidance of situations or stimuli that serve as reminders of the trauma (Apolone G, 2002). While many individuals may experience distress following traumatic events, PTSD is diagnosed when these symptoms persist for over a month and interfere with the individual's ability to function in daily life. The difficulty in processing memories of the traumatic event (Galea S, 2005).

In addition to neurobiological factors, genetic predisposition plays a role in the development of PTSD. Studies suggest that individuals with a family history of mental health disorders, particularly anxiety and mood disorders, may be more vulnerable to developing PTSD after a traumatic experience. Environmental factors such as early childhood trauma, lack of social support, and ongoing stress also increase the risk. These combined factors contribute to the development of PTSD in a way that makes treatment challenging, as the underlying causes can vary significantly across individuals (Helzer JE, 1987). The impact of PTSD is far-reaching, not only affecting the individual but also their family, friends, and community. Individuals with PTSD may experience social withdrawal, difficulties maintaining relationships, and impaired work performance. These challenges often lead to secondary issues such as substance abuse, depression, and even suicidal ideation. The economic burden of PTSD is also significant, with costs related to healthcare, lost productivity, and disability claims. Moreover, untreated PTSD can have long-term effects on the individual's physical health, increasing the risk of chronic conditions such as cardiovascular disease and immune dysfunction (Depression R, 2010).

Current treatments for PTSD aim to alleviate symptoms and improve the individual's ability to function in daily life. Cognitive-Behavioral Therapy (CBT), particularly trauma-