# Posttraumatic stress disorder (PTSD) and complex PTSD (CPTSD)

# A CLINICAL KNOWLEDGE UPDATE

Difficult life events can affect people in many ways sometimes for the better, for example through a more vital outlook on life or personal development. But the negative consequences are multifaceted, and the stress vulnerability model suggests that many forms of mental illness can be triggered or exacerbated by negative and potentially traumatizing events. This overview concerns expressions of trauma-related mental illness that have usually been called posttraumatic stress disorder (PTSD). PTSD is a psychiatric diagnosis that describes a condition in which one or more very stressful events, which have involved life-threatening or extreme psychological stress, have left lasting traces that create great suffering and disability. This may involve having been directly exposed yourself or having witnessed or been informed about the exposure of others. Treatment of PTSD is described in a companion article in this issue.

PTSD is characterized by distressing memories, avoidance of reminders of the event, and hyperarousal/ marked stimulus reactions. Negative changes in thoughts and mood often occur: excessive guilt, depression, alienation from others. Memories of the event can occur during the day or night, in the form of nightmares. Memories in the waking state are involuntary and fragmented and are often accompanied by emotional and physiological reactivity. Sometimes the memories are so intrusive that the person loses orientation and feels like they are experiencing the event again (flashback). The intense discomfort that is aroused creates strong incentives to avoid anything that may remind them of the event, both places, things and people as well as thoughts and feelings. Hyperarousal usually manifests itself in a general heightened tension and alertness or easily frightened. Some people may feel disconnected and numb in the face of sudden stimuli. The symptom picture, including clear avoidance, makes self-healing more difficult and reduces the likelihood that the affected person will seek care. Although it is clear that people can be traumatized by difficult events, it is difficult for clinicians and researchers, among other things, that the definition of PTSD and the components differ significantly in the diagnostic systems DSM-5 [1] and ICD 11 [2]. This also applies to other trauma- and stress-related diagnoses that are only found in one of these two systems. When Sweden starts using ICD-11 in healthcare, there is therefore a risk that the differences will cause difficulties.

# **Incidence and prognosis**

Most people experience at least one potentially traumatic event in their lives. Potentially traumatic

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Associate Professor, Clinical Psychologist accommodation, program director, Knowledge Center for disaster psychiatry, Uppsala University; Psychologist, Academic hospital, Uppsala Traumatic events typically involve the threat of or actual serious harm, sudden or violent death, and sexual violence. It is common for individuals to experience one or more signs of PTSD early in the course of a potentially traumatic event, but these usually subside over time. Social support, particularly from family, friends, and colleagues, is important for recovery. The lifetime prevalence of PTSD in the population is

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studies is about 2–7 percent in the Western world [3]. In a Swedish survey study it was estimated at 6 percent about 20 years ago [4], but more current data are needed. The risk of developing PTSD after a very severe event varies greatly depending on the nature of the event and the individual

# **MAIN MESSAGE**

bPTSD is a psychiatric diagnosis that describes a condition in which one or more very difficult events have left lasting traces that create suffering.

bComorbidity with a range of mental illnesses is more the rule than the exception in PTSD.

bSomatic complaints and illnesses are common in PTSD, and sometimes the reason for seeking care.

bEarly detection of PTSD and treatment of comorbidity can improve both mental and physical health.

 ${\sf bGood}$  social support reduces the risk of developing PTSD.

bThe definition of PTSD differs significantly in the DSM-5 and ICD-11 diagnostic systems.

bComplex PTSD is a new diagnosis in ICD-11 that was introduced to identify particularly complicated forms and is included, together with PTSD, in the group of stress-related syndromes.

# **OVERVIEW**

exposure [3]. Events that are repeated, have a longer duration, or are intentionally caused by others – especially if they occur in childhood and are caused by caregivers – are associated with an increased risk of PTSD or more persistent and severe symptoms. Sexual abuse and sudden or violent deaths of loved ones account for the majority of PTSD cases globally. The incidence of PTSD after sexual abuse is high [3].

For children, studies show a high but varying incidence of trauma exposure. In a Swedish report, 57 percent of students surveyed in grade 9 reported exposure to some type of violence while growing up, of which 29 percent were exposed to a parent [5]. Violence can be directly directed at the child or indirectly. Abuse also occurs digitally [5]. Legislation against crimes against children, which came into force in Sweden in 2021, means that it is punishable to expose a child to witness certain criminal acts, such as violent and sexual crimes in close relationships. Boys and girls are exposed to violence and trauma to approximately the same extent. Sexual abuse is more common among girls, while physical violence is more common among boys. Developmental disabilities, LGBTQ identity, not living with both parents, living in an honor context or being placed outside the home can increase the risk of PTSD. A meta-analysis shows that 15.9 percent of trauma-exposed children develop PTSD before the age of 18 [6]. As in adults, interpersonal events, including sexual abuse and greater levels of threat to life, pose an increased risk for children; as do caregivers who are perpetrators and exposure to multiple types of trauma.

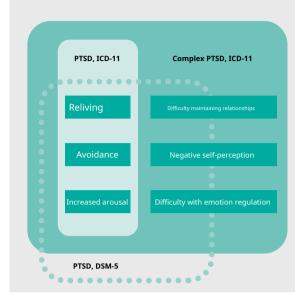
Childhood trauma not only carries a risk for PTSD but should be seen as a transdiagnostic risk factor for psychopathology in childhood and adulthood [7-9]. Child maltreatment, including trauma and neglect, has thus been described as the most preventable factor for mental illness [10]. The course of illness and the conditions for treatment of mental illness, not least depression, are often negatively affected when there is a history of trauma. [11]. Several studies show that severe events that are not considered to reach the threshold for trauma according to DSM-5, such as bullying, can often have a negative impact on mental health, including symptoms consistent with PTSD [12].

Spontaneous recovery from PTSD usually occurs relatively early in adults and children, within 3-6 months [13-15], but can also occur after several years [14]. After that, the condition risks becoming long-lasting unless treatment is initiated [2, 14]. However, the symptoms rarely subside uniformly but fluctuate over time. In the case of later severe events, there is a vulnerability with an increased risk of PTSD. Social support is an important component for healing and contributes to resilience in the event of traumatic stress [16]. The concept of resilience refers to the individual's ability to develop resistance to psychological problems despite difficulties. In a Swedish study of tortured Syrian refugees, social support was a protective factor against developing PTSD [17]. Severe, chronic traumatization can also have more profound expressions in the personality, such as negative self-esteem, lack of emotional regulation and trust-related relationship difficulties.

# Change in diagnostic criteria for PTSD in DSM-5

When DSM-5 was launched in 2013, the PTSD diagnosis changed. PTSD was moved from the anxiety chapter to a new

FIGURE 1.Simplified illustration of the overlap of symptom groups included in definitions of PTSD and complex PTSD in different classification systems.



chapter, trauma- and stress-related conditions. The definition of events that can constitute a trauma became clearer and narrower, including the previous requirement that the individual must react with intense fear, horror or hopelessness. Among other things, to include more severe and more complicated forms of PTSD, the number of symptom criteria was expanded, and a dissociative subtype of PTSD was introduced. This means that PTSD according to DSM-5 can manifest itself in many ways. The new symptom criteria in DSM-5 partially overlap with the additional

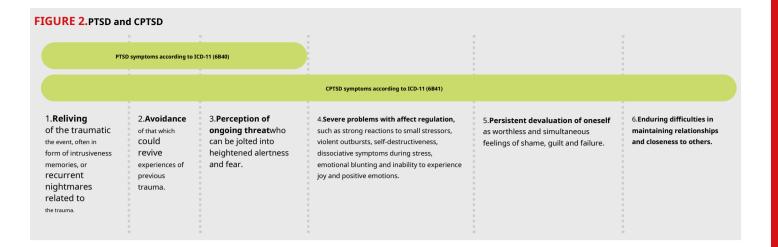
»In response to criticism that the PTSD diagnosis in DSM-IV was insensitive to younger children, DSM-5 introduced a subtype for children 6 years of age or younger.«

the criteria for the ICD diagnosis of complex PTSD (CPTSD) (Figure 1).

In response to criticism that the DSM-IV PTSD diagnosis was insensitive to younger children, DSM-5 introduced a subtype for children 6 years of age or younger. The requirements for diagnosis are lower, and the criteria are based more on behavior than internalized symptoms. For example, intrusive traumatic memories may not be experienced as distressing, but may manifest as repetitive play with traumatic content.

# Complex PTSD (CPTSD) - a new diagnosis in ICD-11

CPTSD is a new diagnosis in ICD-11 that was introduced to identify individuals with particularly complex symptoms.



tom and is included together with PTSD in the group of stress-related syndromes. Both diagnoses require one or more previous very difficult events. CPTSD requires that the criteria for PTSD are met, but also severe and pervasive problems with affect regulation, negative self-image and persistent difficulties in relationships (Figure 2). Dissociation is not explicitly mentioned as a symptom of CPTSD, but studies indicate an increased incidence, especially after difficult childhood events in a family context [18]. CPTSD often causes further impaired functioning in family relationships, education and work compared to PTSD. CPTSD occurs mainly after very difficult, longterm or recurring traumatic events. Women are at higher risk of developing both PTSD and CPTSD. CPTSD is not a diagnosis in DSM-5.

# **Culturally colored symptom variation**

Both ICD-11 and DSM-5 have noted variation depending on cultural aspects. ICD-11 describes that anger may be the most prominent form of expression in some cultural groups and nightmares in others. What is experienced as potentially traumatizing may differ between groups. Regarding CPTSD, it is pointed out that dissociative symptoms may be more common in some groups and that PTSD in refugees and asylum seekers may be exacerbated by the social stresses of refugeehood. DSM-5 describes that cultures offer different cognitive models for linking traumatic events to specific symptoms, which leads to different culturally colored expressions of PTSD.

#### Comorbidity

There is a high comorbidity of PTSD with a number of mental and somatic illnesses, not least depression and anxiety disorders. Around 50 percent of patients with PTSD have concomitant depression [19]. Substance and alcohol use disorders are also common [20]. Increased comorbidity is also found for emotionally unstable personality syndrome, generalized anxiety disorder, bipolar disorder type I, panic disorder, antisocial personality syndrome, agoraphobia, social and specific phobia and eating disorders [21]. Recent studies have drawn attention to the high prevalence of psychosis

symptoms in refugees with PTSD [22]. PTSD involves a clearly increased risk of suicide [23]. CPTSD appears to involve an even more significant comorbidity with other mental health conditions than PTSD [24].

People in conflict areas are at increased risk of PTSD and have an increased comorbidity with other mental illnesses [25]. A recent study shows high

»PTSD also entails an increased risk for, among other things, metabolic diseases, musculoskeletal diseases, chronic pain, psychosomatic disorders and immune-mediated diseases...«

prevalence of PTSD among Ukrainian refugees, both internally displaced and those who have left the country [26]. A German study shows a high general prevalence of trauma and mental illness among Ukrainian refugees [27].

It is important to clinically recognize the high comorbidity with several somatic diseases. PTSD is a strong risk factor for cardiovascular diseases [28-30] for both men and women [31]. There is an association between PTSD and lung diseases [32]. The risk of neurological diseases is increased, with an increased risk of developing dementia, Parkinson's disease and impaired cognitive ability [33]. PTSD also entails an increased risk for metabolic diseases, musculoskeletal diseases, chronic pain, psychosomatic disorders and immune-mediated diseases [28, 33]. In refugee patients, torture injuries can cause long-term pain [34], and they may have suffered traumatic brain injury [35]. Traumatic stress increases the risk of inflammatory-related diseases [36] and autoimmune disease [30].

The high somatic comorbidity shows the importance

# **OVERVIEW**

of combined psychiatric and somatic evaluation and treatment. It is important to evaluate pain patients for possible PTSD [37]. Pain and PTSD symptoms can interact in a way that has been shown to increase the severity and impact of both conditions [38]. Early detection and treatment of the comorbidity can improve both mental and physical health and reduce the incidence of further illness and reduce mortality [39, 40].

Is PTSD a systemic disease? Instead of considering PTSD as a stress-related mental illness with high comorbidity, it has been suggested that PTSD should be viewed as a systemic illness with different neurobiological, physiological and inflammatory responses to stress [41]. In addition, research shows that trauma and severe stress in childhood can have far-reaching consequences at the molecular and neurobiological level, which is assumed to contribute to such childhood experiences being generally potent risk factors [10].

# Differential diagnostics

In addition to high comorbidity, PTSD also has significant symptom overlap with other mental illnesses, especially generalized anxiety and depression. Several criteria for depression can also be criteria for PTSD. However, reexperiencing is unique to both PTSD and CPTSD, while these diagnoses also require trauma exposure. Borderline personality disorder [BPD] and especially CPTSD share a clinical picture of difficulties with affect regulation and relationships. BPD is characterized by an unstable and variable self-image. In CPTSD, the selfimage is constantly devalued. Relationship difficulties in CPTSD involve a tendency to avoid and distance oneself from relationships, in contrast to BPD, which exhibits a pattern of unstable and intense relationships. Impulsivity, suicidality and self-harming behaviors seem to be more common in BPD than in CPTSD [42]. The importance of recognizing dissociative symptoms in PTSD and distinguishing them from psychotic symptoms has been emphasized, but this is a clinical challenge [43]. Furthermore, dissociative and psychotic syndromes and BPS are associated with an increased incidence of trauma. Dissociation in its pathological form is defined in DSM-5 as a disturbance of the normal integrated functions of consciousness, memory, identity and/or perception of the environment, and may in some cases be so prominent that treatment should be directed towards these disorders rather than PTSD.

When it comes to PTSD and developmental disorders, there are both complex relationships and differential diagnostic challenges. Difficulty concentrating, difficulty regulating emotions, and sleep problems occur in both ADHD and PTSD. A meta-analysis has shown a bidirectional relationship between ADHD and PTSD, i.e. an increased risk of PTSD in ADHD and, to a somewhat lesser extent, the reverse [44]. At the same time, behavioral problems and impulsivity associated with ADHD constitute a risk factor for trauma exposure. Individuals with ADHD may have an increased vulnerability to PTSD. One study found that children exposed to maltreatment had more developmental disability diagnoses than children without a corresponding background, while the relationships were not primarily explained by maltreatment [45]. The authors recommend

recommends that children exposed to abuse undergo a full neuropsychological assessment and that clinicians recognize that children with multiple developmental difficulties are at increased risk of being exposed to abuse. Trauma and difficult events have been associated with

»When it comes to PTSD and developmental disorders, there are both complex relationships and differential diagnostic challenges.«

have been associated with lower cognitive ability, but a longitudinal study found no causal relationship [46, 47]. No clearly increased prevalence of PTSD among patients with autism spectrum disorder has been shown [48].

# Healthcare utilization for PTSD and barriers to care

The number of people in Sweden treated for PTSD in healthcare almost doubled between 2006 and 2016 [49]. The risk of being treated for PTSD was linked to migration status, previous mental illness, low income or education, women, the elderly, single parents and urban environment [49]. Despite increased healthcare use, there are barriers to care and treatment. There may be several interacting factors that contribute to this. PTSD symptoms such as avoidance and cognitive impairment make it difficult to seek help and the ability to talk about symptoms and difficult events. For those new to Sweden, lack of knowledge about healthcare and language difficulties are limiting factors. Low health literacy affects help-seeking. For patients with PTSD who do not know that experienced severe trauma can affect mental health, or that it is possible to get help, it is often the somatic symptoms that are conveyed to healthcare. Stigma around mental illness and psychological treatment also contributes to difficulties in seeking help.

There are also barriers in healthcare. Lack of knowledge and skills about PTSD among healthcare professionals leads to poor identification of PTSD [50]. A review article on barriers to healthcare and what facilitates care-seeking for PTSD highlights the importance of identifying PTSD in healthcare, but also the importance of the individual overcoming experiences of shame about emotional problems [51]. Language can be a communication barrier [52]. However, different languages do not have to be a treatment barrier [53].

# Diagnostics when diagnostic criteria look different

Clinical assessment, self-assessment questionnaires and structured interviews form the basis for diagnosing PTSD. Since it is not obvious that the patient himself has identified the connection between difficult life events and psychological problems, the examination needs to establish both the occurrence of difficult events and whether the problems have arisen or worsened in connection with

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with the incident. For further investigation and treatment see our accompanying article in this issue.

As clinicians, navigating diagnostic criteria is made more difficult by the different definitions of PTSD in the latest editions of diagnostic manuals. In the past, attempts have been made to harmonize the definitions of PTSD in the WHO ICD system and the APA (American Psychiatric Association) DSM system. This was discontinued with the latest edition of the DSM, DSM-5. One reason was that the DSM definition of PTSD became even more comprehensive, as a result of the ambition to include more and more complicated aspects of post-traumatic stress. However, the ICD-11, which was ratified in 2018 and is expected to be available in Swedish within two years, has simplified the definition and its diagnostic formulation. It only contains more prototypical symptoms, but has also formulated the new diagnosis, CPTSD. In both psychiatric and somatic care, it is important to pay attention to symptoms of PTSD and initiate treatment for both psychological and somatic symptoms.

Knowledge about PTSD and the consequences of severe trauma is a rapidly growing field of research and knowledge. In order for clinicians to easily stay updated and receive support in navigating a sometimes complex symptom picture, we see a need for coordinated national knowledge support.s

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#### **SUMMARY**

# Post-traumatic stress disorder (PTSD) and complex PTSD (CPTSD) – a clinical update of knowledge

Post-traumatic stress disorder, PTSD, is a psychiatric diagnosis that describes a condition where one or more very traumatic events, that include life-threatening or extreme psychological stress, have left permanent traces of distress that induce sustained suffering. In this clinical overview, we present current updates in diagnostic criteria and a new diagnosis of complex PTSD, and discuss the problems caused by the new PTSD diagnosis criteria partially differing in the DSM-5 and ICD-11 diagnostic manuals. Diagnostic challenges caused by symptom variations are discussed, as well as the high degree of comorbidity with other psychiatric and somatic illnesses. Combined forms of treatment that reduce both psychological PTSD and somatic symptoms are underlined, as well as the clinical value of early discovery of PTSD and treatment of comorbidity. Furthermore, the article illuminates knowledge about resilience and social support as protective factors.

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