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Contact Hours: 2

Posttraumatic Stress Disorder (PTSD)

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LEARNING OUTCOME AND OBJECTIVES: Upon completion of this course, you will have increased your understanding of posttraumatic stress disorder and your ability to intervene appropriately in the assessment, diagnosis, treatment, and prevention of the disorder. Specific learning objectives to address potential knowledge gaps include:

- Define posttraumatic stress disorder (PTSD).
- Summarize the epidemiology and etiology of PTSD.
- Identify risk factors for developing PTSD.
- Identify the symptoms and diagnostic criteria.
- Discuss appropriate assessment and diagnosis of patients with suspected PTSD.
- Describe current interventions and outcome goals for patients.

INTRODUCTION

PTSD has been known in the past as "shell shock" during World War I and "combat fatigue" during World War II. But PTSD does not just happen to combat veterans. PTSD occurs in people of any ethnicity, nationality, or culture, and at any age.

Definition

PTSD is classified in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* as an anxiety and "trauma and stressor-related disorder."

The Encyclopedia of Mental Disorders (EMD, 2023) defines posttraumatic stress disorder as "a complex disorder in which the affected person's memory, emotional responses, intellectual processes, and nervous system have been disrupted by one or more traumatic experiences. It is sometimes summarized as a normal reaction to abnormal events."

PTSD can impact all aspects of a person's functioning and well-being. It has been associated with a greater likelihood of comorbid substance use disorder, mood disorder, anxiety disorder, and personality disorder. PTSD is also associated with poorer perceived physical health, increased morbidity, and greater healthcare utilization for physical problems.

Types of PTSD

According to the DSM-5, there are five potential classifications of PTSD.

- Uncomplicated PTSD: PTSD as outlined in DSM-5
- Complex PTSD: Severe psychological symptoms due to chronic repeat trauma over long periods of time
- PTSD with dissociative symptoms: PTSD with the presence of persistent derealization or depersonalization
- PTSD with delayed expression: Full PTSD diagnostic criteria occurring 6 months or longer after the experience of trauma
- Comorbid PTSD: PTSD diagnosis coinciding with another mental health condition, such as depression (APA, 2013)

Etiology

Harmful or life-threatening events that individuals find traumatic can vary from person to person, and these may include:

- Interpersonal violence: Childhood physical abuse, witnessing interpersonal violence, physical assault, or being threatened by violence
- Sexual violence: Rape, childhood sexual abuse, intimate partner violence
- Interpersonal-network traumatic experiences: An unexpected death of a loved one, lifethreatening illness of a child, or other traumatic event of a loved one
- Exposure to organized violence: Being a refuge, kidnapping victim, or civilian in a war
- Participation in organized violence: Military combat exposure or exposure to gang violence, witnessing death or serious injury, discovering dead bodies, accidentally or purposefully causing death or serious injury to others

- Mass conflict and displacement: Torture, cumulative exposure to potentially traumatic events
- Being a victim of harassment or bullying, including racism, sexism, homophobia, biphobia, transphobia, or other types of abuse targeting the person's identity
- Other life-threatening traumatic events: Life-threatening motor vehicle or train accidents, gas explosions, fires, infectious disease epidemics, radiation, mass casualties, natural disasters, or being diagnosed with a life-threatening condition (Sareen, 2023; APA, 2013)

Factors that **increase vulnerability** to PTSD include:

- Experiencing repeated trauma
- Being physically injured or feeling pain
- Prior history of anxiety or depression
- Having little or no support from friends, family, or professionals
- Dealing with added stress such as bereavement, seeking asylum, homelessness, or being incarcerated (Mind, 2023)

EPIDEMIOLOGY

Prevalence

In the United States about 1 in 13 people of all age groups will develop PTSD each year. Overall, PTSD affects around 5% of the U.S. population, or about 13 million people. It is estimated that 37% of affected adults experience serious impairment, 33% have moderate impairment, and 30% have mild impairment.

Population subgroups in the United States have been found to have higher rates of PTSD compared to the general population. These groups include refugees from places where traumatic stress was endemic and Native Americans living on reservations. Studies have shown that Indigenous peoples have 1.4 times greater odds of lifetime PTSD compared with non-Indigenous people.

Lower prevalence rates have been found outside of North America. The World Health Organization found a lifetime prevalence of PTSD (proportion of a population that, at some point in their life, has experienced a particular risk factor) in upper-middle income and lower-middle income countries of 2.3% and 2.1%, respectively. A national sample of Australians found a lifetime prevalence of PTSD to be 1%. The reasons for this difference are not well understood (Sareen, 2023; The Recovery Village, 2023).

PTSD IN WOMEN VERSUS MEN

PTSD is far more common in women than in men. The prevalence for men is estimated to be 4%, while PTSD symptoms affect 8% of adult women. Men have been found to have experienced more traumatic events during their lifetimes than women, but PTSD symptoms among men are far less common than in women. This may be due in part to the type of traumatic events experienced. Women are more likely to experience sexual assault and trauma than men. Among rape victims, for example, 49% will develop PTSD (The Recovery Village, 2023).

PTSD AMONG ADOLESCENTS

An estimated 5% of adolescents experience PTSD, causing serious, moderate, or mild impairment. Studies in teens have found that 1.5% experience severe impairment. PTSD in adolescents is more common in later teen years. For teens ages 13–14 years, prevalence is 3.7%, and this increases to 7% in the 17–18 year age group (The Recovery Village, 2023).

PTSD IN MILITARY PERSONEL

PTSD statistics for the military show that an estimated 29% of combat veterans develop PTSD. However, PTSD in military personnel does not occur exclusively as a result of combat. PTSD is one of the most common diagnoses among those who experience sexual assault within the military ranks (The Recovery Village, 2023).

PTSD and Suicide

Living with PTSD may increase chances of suicide ideation or attempt. As many as 27% of those diagnosed with PTSD have attempted suicide. Experts estimate that 54% of suicides among people living with PTSD were directly related to PTSD and not co-occurring conditions.

U.S. veterans and active service members, as well as first responders—firefighters, police officers, and paramedics—have an increased incidence of suicide.

Among civilians, PTSD accounts for 3.5% of suicides in women and 0.6% of suicides in men (PsychCentral, 2023).

RISK FACTORS AND RESILIENCE

The likelihood of developing PTSD is affected by several individual and societal risk factors and an individual's resilience.

Risk Factors

Risk factors that make individuals more likely to develop PTSD after a traumatic event are listed below. Intentional trauma has a greater association with PTSD than unintentional/nonassaultive trauma.

- Female gender
- Racial trauma
- Childhood adversity, including trauma/abuse
- Less education
- Sexual abuse or assault
- Extreme life events (e.g., car accidents, fires, medical emergencies)
- Active-duty combat
- Lower socioeconomic status
- Family instability, lack of a social support system
- Previous trauma prior to index traumatic event
- Physical injury (including traumatic brain injury) as part of the traumatic event
- Experiencing intense or long-lasting trauma
- Initial severity of reaction to the trauma
- Drug, alcohol, and other substance misuse
- General childhood adversity
- Personal and family psychiatric problems, including anxiety or depression
- Occupation choice (e.g., firefighter, emergency medical services [EMS], military, police)
- Sleep disorders such as insomnia or sleep apnea (Sareen, 2023; PTSD Alliance, 2023)

Resilience

Many people are affected by traumatic events, but a majority of them recover from stress reactions and do not go on to develop PTSD. The ability to recover quickly from or adjust easily to traumatic events involves a degree of resilience.

Resilience is the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioral flexibility and adjustment to external and internal demands. A few factors contribute to how well people adapt, including:

- The ways in which individuals view and engage with the world
- The availability and quality of social resources
- Specific coping strategies

A coping strategy is an action or series of actions or thought processes used to meet a stressful or unpleasant situation and to modify one's reaction to it. Coping strategies typically involve a

conscious and direct approach to problems, in contrast to the use of defense mechanisms, which are patterns of reactions employed by the ego to protect itself from anxiety.

Resilience involves behaviors, thoughts, and actions that can be learned and developed. Increasing resilience takes time and intention, focusing on four major components: connection, wellness, healthy thinking, and meaning. These include:

- Building connections with others
- Fostering wellness of body and mind
- Finding purpose and meaning
- Learning healthy ways of thinking (e.g., keeping things in perspective)
- Seeking professional help when needed (APA, 2023a)

SYMPTOMS, ONSET, AND COURSE

Symptoms

The *DSM-5* divides PTSD symptoms into four clusters: intrusion, avoidance, negative alterations in cognition and mood, and alterations in arousal and reactivity (APA, 2013).

INTRUSION

Intrusion, one of the core symptom clusters of PTSD, can take the form of unwanted and obsessive thoughts, feelings, sensory experiences, or any combination of the three relating to the experienced trauma. These can include:

- Involuntary, recurrent, and intrusive memories
- Traumatic distressing dreams or nightmares
- Dissociative reactions (flashbacks) in which the person feels or acts as if the traumatic event(s) were recurring
- Intense or prolonged psychological distress
- Marked physiological reactivity postexposure to internal or external cues

AVOIDANCE

Efforts persist to avoid distressing trauma-related stimuli, including:

- Avoiding thinking or talking about the event
- Avoiding external reminders, such as persons, places, activities, situations, or objects

- Inability to remember important parts of the trauma (dissociative amnesia)
- Inability to experience positive emotions

NEGATIVE ALTERATIONS IN COGNITION AND MOOD

Such alterations in cognitions and mood begin or worsen after the traumatic event and include:

- Persistent and often distorted blame of self or others
- Persistent negative emotions related to the trauma, such as fear, anger, guilt, shame, or horror

ALTERATIONS IN AROUSAL AND REACTIVITY

Alterations in arousal and reactivity begin or worsen after the traumatic event and include:

- Angry outbursts, irritability, or aggressive behavior
- Self-destructive or reckless behavior
- Hypervigilance
- Exaggerated startle response
- Problems concentrating
- Sleep disturbance

SYMPTOMS IN CHILDREN AND TEENS

Children and teens can have extreme reactions to traumatic events, but symptoms may be different than those seen in adults. In children vounger than age 6, symptoms can include:

- Wetting the bed after having learned to use the toilet
- Forgetting how to talk or being unable to talk
- Acting out the scary event during playtime
- Being unusually clingy with a parent or other adults

Older children and teens usually show symptoms more like those seen in adults. In addition, they may also develop disruptive, disrespectful, or destructive behaviors. They may also feel guilt over not preventing injury or death, or may have thoughts of revenge (NIMH, 2023b).

Onset and Course

Symptoms of PTSD usually begin within three months of the traumatic event, but they can sometimes emerge later. To be diagnosed with PTSD, a person must have all the following for at least one month; they must be severe enough to interfere with daily life, such as relationships or work; and they must not be related to medication, substance use, or other illness:

- At least one re-experiencing symptom
- At least one avoidance symptom
- At least two arousal and reactivity symptoms
- At least two cognition and mood symptoms

The course of the disorder varies, with some people recovering within 6 months, and others having symptoms that continue to occur for one year or longer (NIMH, 2023b).

CASE

Alex

Alex Moore, age 29, was brought to the emergency department (ED) by his sister. She awoke in the night and found Alex writing a suicide note at the kitchen table. The smell of alcohol was on his breath, and there were bottles of both pain and sleeping pills beside him. Five weeks earlier, Alex had left his wife in Texas and driven to his sister's home in California. Three weeks after that he got drunk, wrecked his truck, and became dependent on his sister for transportation. When she confronted him at the kitchen table, he said, "I'm no damn good to anyone. You'll all be better off without me." After much pleading, his sister talked Alex into going with her to the local hospital's ED.

In the ED Alex's manner was subdued but somewhat hostile, especially when the staff decided to admit him to the hospital as a "danger to self." His sister provided a fuller history. She described an episode last summer involving Alex and his close friend from childhood, Loren. The two of them had gone out to a party one night and both had too much to drink. Alex, however, felt he was sober enough to drive, and they headed home. Along a narrow stretch of road that ran along the river, Alex was driving too fast and lost control. The car went over the edge of the road and landed in the water. Alex was able to get out of the vehicle, and he struggled to extricate Loren. Loren had been knocked unconscious in the accident and was unable to help himself. When Alex finally was able to get him free and up onto the riverbank, Loren was already dead.

Six months later, Alex was still struggling to come to terms with his role in Loren's death. He lost his job due to angry outbursts and was having difficulties with his marriage, trouble sleeping, nightmares, difficulty concentrating, and chronic fatigue.

In the hospital, Alex was passive, withdrawn, and irritable. He sat stone-faced in group meetings, refusing to participate. He was easily startled by sounds and wandered around the ward checking doors and windows.

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Comorbidities and Consequences

PTSD is commonly accompanied by comorbid psychiatric conditions, including depression, substance use disorders, and somatic symptoms. A person with somatic symptom disorder has a significant focus on physical symptoms to a level that results in major distress and/or problems functioning. The physical symptoms may or may not be associated with a diagnosed medical condition, but individuals believe they are truly ill.

A large U.S. sample demonstrated that almost one quarter of patients with PTSD had a diagnosis of borderline personality disorder (BPD). These individuals also have a high rate of antisocial personality disorder, with increased risk of suicide attempts and high levels of traumatic events in childhood.

Traumatic events and PTSD are also associated with physical health problems. Patients with PTSD have medical comorbidities between 1.5 and 3 times more commonly compared with individuals without PTSD. These include:

- Bone and joint diseases
- Cardiovascular diseases related to obesity, dyslipidemia, hypertension, and type 2 diabetes in women
- Pulmonary diseases related to tobacco use
- Autoimmune and endocrine diseases
- Neurologic diseases including Alzheimer's disease, vascular dementia, and Parkinson's disease
- Accelerated aging and early mortality
- Traumatic brain injury (TBI) sequelae among both civilians and military personnel, which may include memory loss, seizures, fatigue, and paralysis (Sareen, 2023; APA, 2023)

ASSESSING AND DIAGNOSING PATIENTS WITH KNOWN OR SUSPECTED PTSD

Individuals exposed to a traumatic event should be screened systematically for PTSD and connected to high-quality mental health services. Primary care patients with new anxiety, fear, or insomnia should be asked about a history of trauma and also screened for PTSD. Others in which PTSD may be a factor are those with anxiety symptoms, social isolation, and increased substance use.

Clinical Interview

Individuals who screen positive for PTSD are referred for additional evaluation, which is typically a face-to-face interview by a health professional trained in diagnosing psychiatric disorders. A face-to-face interview is the optimal method of assessment to determine a PTSD diagnosis. Clinical interviews can be structured, semi-structured, or unstructured.

The Clinician-Administered PTSD Scale for DSM-5 (CAPS-5) is considered the gold standard in PTSD assessment. It is a 30-item, structured interview administered by clinicians and appropriately trained paraprofessionals to make a current or lifetime diagnosis of PTSD and to assess PTSD symptoms over the previous week. The full interview takes 45–60 minutes to administer. A version of CAPS for children and adolescents ages 7 and above is also available.

The Life Events Checklist for DSM-5 (LEC-5) is often used in combination with CAPS-5 for the purpose of establishing exposure to a PTSD criterion, which is essential for making a PTSD diagnosis. The LEC-5 assesses exposure to 16 events known to potentially result in PTSD or distress and includes one additional item assessing any other extraordinarily stressful event not captured in the first 16 items. There is no formal scoring protocol or interpretation other than identifying whether the person has experienced any of the events (Comorbidity Guidelines, 2023; NCPTSD, 2022a).

ASSESSING THE OLDER ADULT

Older adults may not readily report traumatic experiences, or they may minimize their importance, especially if the event(s) occurred a long time in the past. Therefore, assessment of trauma and related symptoms should be routine.

The recommendations for assessment of an older adult include a full mental status examination, including cognitive screening. The same "gold standard" assessment tool, CAPS-5, is recommended for the older adult. If dementia is suspected, the patient is referred for a comprehensive diagnostic evaluation. If delirium or possible medication interaction is suspected, the patient is referred for medical evaluation.

When interviewing older adults, it is understood that older patients may talk about problems or respond to questions differently than younger people. They may be less likely to identify problems from a psychological point of view and be more likely to report physical concerns or pain, sleep difficulties, cognitive problems, or gastrointestinal issues. In addition, the older adult is likely to have more medical problems, co-occurring psychiatric problems, and cognitive problems that can complicate the assessment and treatment of PTSD. Suicide assessment is particularly important in older patients. (Hermann, 2022).

Physical Examination

Any patient presenting with symptoms of PTSD should have a complete history and physical examination to rule out any medical or neurological disorder. Routine laboratory testing such as complete blood count, urine toxicology, thyroid-stimulating hormone, vitamin B₁₂, and folate levels are checked. Individuals may present with physical injuries in regards to the trauma, and accordingly, neuroimaging studies such as computed tomography (CT) and magnetic resonance imaging (MRI) scans of the brain is indicated as per the history and presentation (Mann & Marwaha, 2023).

Medical Diagnosis

A medical diagnosis is the naming of a disorder based on an assessment of physical signs and symptoms, medical history, and results of diagnostic tests and procedures. The *DSM-5* establishes the criteria required in order to make the medical diagnosis of PTSD, as described in the table below.

MEDICAL DIAGNOSIS OF PTSD	
Criterion	Requirement
A. Stressor	Must be exposed to death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence. Must have one of the following: • Direct exposure
	Witnessing, in person
	• Indirect exposure, by learning that someone close was exposed to trauma, and if involved, actual or threatened death must be violent or accidental
	• Repeated or extreme indirect exposure to details of traumatic event(s) such as experienced in the course of occupation (e.g., EMS personnel, police, firefighters); does not include indirect nonprofessional exposure through electronic media, television, movies, or pictures
B. Intrusion	Must have one of the symptoms in this symptom cluster (see "Symptoms" earlier in this course)
C. Avoidance	Must have one of the symptoms in this symptom cluster (see "Symptoms" earlier in this course)
D. Negative alterations in cognitions and mood that worsened after the traumatic event	Must have two of the symptoms in this cluster (see "Symptoms" earlier in this course)
E. Alterations in arousal and reactivity that began	Must have two of the symptoms in this cluster (see "Symptoms" earlier in this course)

or worsened after the traumatic event	
F. Duration	Symptoms having persisted for more than one month
G. Functional	Must be significant symptom-related distress or functional impairment in activities of daily living such as socialization and occupation
H. Exclusion	Disturbance not due to medication, substance use, or other illness
Specify whether the person experiences	Depersonalization: Recurrent experiences of feeling detached from one's mental processes or body
dissociative symptoms	• Derealization: Persistent or recurrent experiences of unreality of surroundings
Specify if with delayed expression	Diagnostic criteria not met until at least 6 months after the event
(APA, 2013)	

CASE

Alex (continued)

The mental health team evaluated Alex. His physical examination was within normal limits, and a structured interview was conducted using the Clinician-Administered PTSD Scale for DSM-5 (CAPS-5).

An assessment for PTSD diagnostic criteria revealed that Alex was **directly exposed to a stressor** when he experienced the car accident that took the life of his childhood friend. He was found to have:

- One **intrusive** symptom (nightmares that he refused to discuss)
- One **avoidance** symptom (not driving along the road near his home where the accident happened)
- More than two **negative alterations in cognitions and mood** that have worsened after the traumatic event (increasing negative thoughts about himself and his self-worth, passivity, withdrawal, and refusing to participate in group meetings)
- More than two symptoms of alteration in arousal and reactivity (contemplating self-destruction, irritability and outbursts of anger, trouble sleeping, inability to concentrate, startles easily, hypervigilance in checking doors and windows)
- **Duration** of symptoms persisting for longer than one month
- Has experienced significant symptom-related distress or **functional impairment**, as he describes himself as unable to "settle down" or keep a job and has relationship problems.

After determining that Alex's symptoms met the criteria as set forth in DSM-5, a diagnosis of posttraumatic stress disorder was made. *(continues)*

INTERVENTIONS

Caring for the patient diagnosed with PTSD involves establishing patient-centered goals and expected outcomes, setting priorities, and choosing interventions according to the urgency of each problem. Urgency is measured by patient safety, patient desires, and nature of the treatment.

Interventions for PTSD are generally divided into psychotherapy and pharmacology, with psychotherapy being the primary choice for most adults. There are several treatment modalities, and while some patients respond well to one modality, others may require a combination of modalities.

Trauma-Focused Psychotherapies

Trauma-focused therapies focus on the trauma and its subsequent effects on the patient consistently throughout treatment. This modality helps the patient to correct flawed perceptions and decrease symptoms through exposure to reminders of the traumatic event.

COGNITIVE BEHAVIORAL THERAPY (CBT)

Cognitive behavioral therapy is based on the idea that our thoughts and behaviors are interwoven. This means that if one's thoughts are changed, then behavior will also be impacted. CBT targets maladaptive behaviors and beliefs that cause distress and impair ability to function. Following trauma, a person is left with extremely negative beliefs about themselves, others, and the world. A CBT therapist works with these individuals to help them learn how to identify, assess, and modify negative perceptions and actions that result in distress (Porter & Fuller, 2023).

COGNITIVE PROCESSING THERAPY (CPT)

Cognitive processing therapy is a form of CBT developed specifically to treat trauma. It is a structured approach that typically occurs over 12 sessions and includes both psychoeducation and the development of coping skills. A therapist explores how a patient's trauma has affected their mind and body, both during and after the event, and then uses cognitive restructuring to help the person identify, assess, challenge, and change rigid maladaptive thoughts related to the trauma (Porter & Fuller, 2023).

BRIEF ECLECTIVE PSYCHOTHERAPY (BEP)

Brief eclectic psychotherapy for PTSD combines aspects of CBT with psychodynamic therapy. BEP aims to change painful thoughts and feelings resulting from a traumatic event. While incorporating many elements found in cognitive behavioral therapy, BEP also incorporates a psychodynamic approach with an emphasis on the emotions of shame and guilt and the relationship between patient and therapist. Throughout treatment sessions, the person learns about trauma and how to employ relaxation exercises while discussing the trauma (Porter & Fuller, 2023).

PROLONGED EXPOSURE THERAPY (PE)

Prolonged exposure therapy is used to address PTSD avoidance behaviors. Patients who have experienced trauma typically avoid reminders of that trauma in order to protect themselves from being overwhelmed by fear and emotional pain. This only further reinforces that fear and pain.

Throughout PE treatment, typically provided over a period of about three months, the therapist utilizes systematic desensitization techniques through prolonged exposure to stressful trauma cues, which leads to gradual disappearance of symptoms. More specifically, the therapist teaches patients relaxation and grounding techniques during a session while the patient is being exposed to distressing reminders, including imaginal exposure and in vivo exposure.

Imaginal exposure occurs with the patient describing the event in detail in the present tense followed by a discussion and processing of emotions. The patient is recorded during the event for use between sessions to further process the emotions and practice associated breathing techniques.

In vivo exposure is assigned homework that involves the confrontation of feared stimuli outside of therapy. Both patient and therapist together identify a range of possible stimuli and situations connected to the traumatic fear. They then agree on which stimuli to confront and devise a plan to do so between sessions (Porter & Fuller, 2023).

Virtual reality exposure is a method found to be well suited for recreating scenarios to help facilitate exposure. Virtual reality exposure therapy uses a head-mounted computer display to present the patient with the visual, auditory, tactile, and other sensory material that stimulate traumatic memories and affective response (Stein & Norman, 2021).

NARRATIVE EXPOSURE THERAPY (NET)

NET is a short-term approach specifically for survivors of complex trauma and which can be done individually or in small groups. Narrative exposure therapy involves having the patient write about the traumatic event in response to specific prompts. As they write, they are asked to notice their thoughts, emotions, and physical sensations in the present moment (Stein & Norman, 2021).

EYE MOVEMENT DESENSITIZATION AND REPROCESSING (EMDR)

EMDR is a form of psychotherapy that incorporates components of CBT and exposure therapy along with saccadic eye movements (rapid, jerk-like movement of the eyeball) to abruptly change the visual focus on an object.

The technique involves having the patient imagine a scene from the trauma and focus on the accompanying cognition and arousal. The therapist simultaneously moves two fingers across the patient's visual field and instructs the patient to track the fingers. This sequence is repeated until anxiety decreases, at which point the patient is instructed to generate a more adaptive thought. An example of a thought initially associated with the traumatic image might include, "I'm going to die," while the adaptive thought might end up being "I made it through, and it's in the past" (Stein & Norman, 2021).

Non-Trauma-Focused Psychotherapies and Psychosocial Interventions

Some types of non-trauma-focused therapies have been shown to be effective in reducing symptoms of PTSD, but their effects are lesser than trauma-focused interventions. Trauma-focused therapies also are not always available and not always desired by patients.

PATIENT-CENTERED THERAPY (PCT)

Patient-centered therapy is a time-limited treatment for PTSD that focuses on increasing adaptive responses to current life stressors and difficulties that are directly or indirectly related to trauma or PTSD symptoms. PCT has been shown to result in greater reductions in PTSD symptoms than inactive controls but lesser reductions than trauma-focused cognitive-behavioral therapies (Stein & Norman, 2021).

INTERPERSONAL THERAPY (IPT)

Interpersonal therapy has been found to be effective for patients who are not willing to undergo an exposure-based therapy. IPT is a present-based therapy that focuses on the interpersonal consequences of trauma rather than on the trauma itself, distorted cognitions, or behavioral habituation. IPT includes a time-limit, and goals are the resolution of interpersonal conflict and mobilization of social support (Stein & Norman, 2021).

CASE

Alex (continued)

Several times during his hospitalization, Alex met with a social worker, who provided education about the PTSD symptoms he was experiencing and explained how treatment could help him restore control over his life. During his sessions with the social worker, Alex began to develop an awareness of thoughts and feelings that he had not previously understood were related to his trauma.

The multidisciplinary team's plan of care involved Alex participating in cognitive-behavioral therapy. Two forms of CBT therapy were determined to be good choices for Alex—cognitive processing therapy and prolonged exposure therapy, which are two of the most common CBT methods used to treat PTSD.

In the first session, a psychologist met with Alex and discussed the theory behind PE therapy to help him understand why he would be asked to do something as scary as reliving his trauma. He was told he would be talking about and reacting to the memories of his traumatic experience, but in the absence of any danger.

During the next session, Alex struggled at first, but with the psychologist's promptings and urgings began talking about the accident and how his best friend, Loren, had been killed. Alex remembered his frantic efforts to try to reach his friend and help him out of the car. Again, he felt the fear and frustration with the difficulty he experienced trying to get Loren out of the car and onto the riverbank.

During the telling of the event, Alex experienced intense distress and fear and responded physiologically as if he were actually living through the trauma again. He cried softly as he described the death of his friend. He repeatedly said, "I'm sorry, I'm so sorry, Loren! I should have saved you. I wish it had been me." During this session, the psychologist recorded his description of the trauma and emotional response. Alex was instructed to listen to this recording sometime during the remainder of the day and told that they would repeat the session again the following morning.

Alex also began attending group sessions with an occupational therapist. He learned about the struggles other patients with posttraumatic stress were having trying to move forward to assume normal activities of daily living and responsibilities. He began opening up and talking more freely. The occupational therapist made an appointment with Alex to complete an assessment of the effects PTSD has had on his ability to work.

With continued treatment, Alex gradually experienced less and less fear, anger, and guilt. He was able to remember his experience without reacting to it negatively and began the slow process of incorporating the event into his other lifetime memories. *(continues)*

Psychopharmacology

First-choice PTSD treatment can involve therapy, medication, or a combination of both. PTSD is considered by many to be a psychological disorder; however, evidence has shown it to be related to changes in the brain that are linked to a person's ability to manage stress. People with PTSD have different amounts of specific neurotransmitters in the brain than people without PTSD. Certain medications have been found to be successful in treating PTSD by putting these neurotransmitters back in balance.

Two types of antidepressant medications have been found to be most effective for PTSD—selective serotonin reuptake inhibitors (SSRIs) and serotonin-norepinephrine reuptake inhibitors (SNRIs). These include:

- Sertraline (Zoloft), FDA approved for PTSD
- Paroxetine (Paxil), FDA approved for PTSD
- Fluoxetine (Prozac), off-label use

Other off-label medications may be helpful, but the evidence is not as strong as for SSRIs and SNRIs. These include:

- Nefazodone (Serzone), a serotonin reuptake inhibitor (SRI)
- Imipramine (Tofranil), a tricyclic antidepressant (TCA)
- Phenelzine (Nardil), a monoamine oxidase inhibitor (MAOI)
- Topiramate (Topamax), an anticonvulsant
- Minipress (Prazosin), an alpha-adrenergic blocker used for nightmares (NCPTSD, 2023a; Stein, 2023)

Occupational Therapy

PTSD can be debilitating, with negative impacts in many areas of a person's life, making it difficult to carry out the normal activities of daily living. Broad areas affected can include health and safety, money management, self-care, transportation, work, school, relationship duties, and community participation. PTSD also affects a person's executive planning abilities such as time management and concentration or paying attention. Overall reduction of PTSD symptoms has been found to be associated with improvement in these instrumental activities of daily living.

Access to occupational therapy early in the recovery process can prevent loss of routines, habits, and roles. Occupational therapists (OTs) assist in identifying areas of development and functional performance that may have been impacted by stressful and traumatic experiences. OTs are able to enhance functional coping strategies, environmental adaptations, and other aspects that optimize daily functioning. Therapists enable a person with PTSD to experience life more meaningfully and to achieve a more satisfying inclusion within society (AOTA, 2018).

Occupational therapists work with patients who have PTSD across the lifespan and in all phases of recovery. Following a comprehensive and collaborative evaluation to identify the individual's strengths and barriers to occupational performance and their causes, OTs provide individual and group therapy sessions that are often done in collaboration with other professionals. They may offer treatment options that include self-reflection (for both adults and children), using expressive therapies (such as dance, drawing, or role-playing), and focusing on empowerment and promotion of health and well-being (Edgelow, 2019; Punski, 2023; AOTA, 2018).

OCCUPATIONAL THERAPISTS AS QMHPs

Occupational therapists are considered qualified mental health providers (QMHPs) in many states and Puerto Rico. Occupational therapists in these jurisdictions are also permitted to be classified as QMHPs for purposes of Medicaid reimbursement (Wilburn et al., 2021).

CASE

Mickey

Mickey, an Army veteran, returned home from Iraq, where he drove trucks in combat zones. He was diagnosed with PTSD as a result of this combat experience. Since his return, he has been involved in two minor automobile accidents and received a citation for inattentive driving when he was straddling two lanes on the highway.

His psychiatrist was aware that many returning combat veterans have difficulty returning to civilian driving, and their behaviors often were viewed as "road rage" or thrill-seeking. Increasingly, however, these driving behaviors have been identified as symptoms of either a traumatic brain injury or PTSD. For this reason, the psychiatrist referred Mickey to the North Central Rehabilitation Center for assessment and assistance with driving in a civilian setting.

Carlos, an occupational therapist who is also a certified driving rehabilitation specialist, received the referral and met Mickey for the first time a few days later. At this initial meeting, Mickey learned that the goal of the following sessions would be to conduct a routine assessment and a comprehensive driving evaluation, which was expected to take approximately three hours to complete.

The first part of the evaluation was done in the office. During the initial session, Carlos conducted an examination of Mickey's physical, visual, and mental abilities required for safe driving, including his reaction time, basic visual acuity, and decision-making.

At the following session, Carlos introduced Mickey to the driving simulator, a technology that provides the illusion of driving an actual vehicle. PTSD response triggers were programmed into two driving scenarios designed to elicit a reaction from the driver. In this instance, nine triggers were included in a simulated a rural/suburban drive and ten triggers included in a city/highway drive. The triggers were combat-related and included disabled vehicles, trash at the side of the road, dead animals, unexpected maneuvers made by other drivers, loud helicopter sounds, and engines backfiring.

In the following session during the simulated driving experience, Carlos recorded the number and types of errors Mickey made as well as the verbal responses he made in reaction to the triggers. Mickey's most common errors were in lane maintenance and vehicle positioning. Following the session, Carlos and Mickey developed a plan of intervention strategies to help overcome Mickey's combat mindset and improve the skills that are required for civilian driving.

Physical Therapy

Physical therapists are not involved in the primary treatment of PTSD, but they are heavily involved in the rehabilitation of patients with traumatic brain injury and comorbid PTSD.

Physical therapy can offer various forms of therapeutic exercise, which is a potent technique for helping those with PTSD to fight anxiety and depression. It promotes many changes in the brain, including neural growth, reduced inflammation, and new activity patterns that provide feelings of calm and well-being. It also boosts physical and mental energy, relieves tension and stress, and enhances well-being through the release of endorphins. Exercise can also serve as a muchneeded distraction, allowing for time to break out of the cycle of negative thoughts that feed depression. In addition, exercise may also:

- Help with sleep problems, allowing for a restful night's sleep and feeling energized during the day
- Give a sense of accomplishment as fitness improves and as goals are achieved
- When performed as a shared activity with others, provide additional benefits of social connection

Stress and anxiety can result in tension in the body, and physical therapy can help to reduce or eliminate various types of muscle and joint pain. A physical therapist can evaluate a patient and administer an individualized treatment plan, which may include one of more of the following: strength training; stability, balance, endurance, and/or range of motion exercises; joint mobilizations; dry needling; and/or various types of targeted soft tissue work (such as myofascial release or other manual therapy techniques).

People with PTSD can react strongly to events that remind them of the traumatic experience, and this can lead to a rapid heart rate, chest tightness, shortness of breath and trembling. Breathing exercises can help them get through situations of stress, making it easier to self-manage an episode (Physiopedia, 2023).

Complementary and Integrative Approaches

A growing body of research supports the use of complementary and integrative treatment modalities for PTSD. Clinicians can employ modalities such as mindfulness-based interventions and yoga when treating patients with PTSD.

MINDFULNESS-BASED INTERVENTIONS

Regular mindfulness and meditation can lead to positive changes to neural functioning by helping the learning and memory processes, emotional regulation, and perspective-taking as well as reducing the volume of the right amygdala, which is involved in activating the "fight or flight" response.

Mindfulness practice has two key elements:

- Paying attention to and being aware of the present moment
- Accepting or being willing to experience thoughts and feelings without judgment

Present-centered awareness and nonjudgmental acceptance may function as indirect exposure to trauma-related stimuli, both internal and external, resulting in a reduction of behavioral avoidance and physiological arousal.

Present-centered awareness diminishes worry and catastrophic thinking, and through this training, the patient is able to gain an understanding that cognitions and beliefs are mental phenomena rather than facts (NCPYSD, 2023b).

YOGA

Yoga involves a combination of physical postures, controlled breathing, meditation, and yogic ethics and philosophy. Yoga has been associated with improvement in depression, anxiety, and stress, with few to no side effects.

With its combination of controlled breathing, relaxation, meditation, and movement, hatha yoga can shift autonomic balance towards the parasympathetic branch of the autonomic nervous system, which reduces the hyperactivation of the amygdala and elevated cortisol levels that often accompany PTSD.

Yoga is effective in easing tense muscles and improving the confidence of those with PTSD to go about daily life with less fear that they are likely to experience triggering episodes.

Hatha yoga is also noted for helping reduce intrusive thoughts and anxiety and for facilitating autonomic balance by increasing heart rate variability (HRV), a measurement between sympathetic and parasympathetic nervous systems. Increased HRV is also associated with improved adaptation to changing environmental stimuli and physiological reactions to stress. Having a balanced HRV is important for emotional self-regulation, giving one the ability to calm oneself down (Park & Slattery, 2021).

Evaluation of Interventions

Identified goals and outcomes serve as a basis for evaluating the effectiveness of interventions for survivors of PTSD. The **primary outcome is symptom reduction.** Other goals include learning skills to deal with the trauma and restoring self-esteem. This is evaluated using clinician-rated and self-reported measures that address the symptoms the patient presented with, and asks if they have lessened, remained the same, or increased. Other goals to be evaluated include:

Have comorbid medical or psychiatric conditions been prevented or reduced?

- Has there been an improvement in coping skills?
- Have proper sleep patterns been restored?
- Has there been improvement in relationships with others?
- Has there been a remission of all symptoms?
- Has the patient's quality of life improved?
- Has the patient effectively dealt with disability/functional impairment?
- Has the patient returned to work or to active duty? (Springfield Wellness Center, 2023)

CASE

Alex (continued)

Six months after he began treatment, Alex met with his healthcare provider. In evaluating his treatment, she determined that he has achieved the following goals:

- He no longer has thoughts of suicide.
- His symptoms have lessened to a great extent, and most days he is functioning well.
- He has not reported any signs or symptoms of depression or anxiety.
- His sleep has improved, and most nights he sleeps undisturbed for 6 to 7 hours.
- He no longer feels angry and has not had any outbursts for over 3 months.
- Alex has returned to his wife, and they are now involved in family counseling.
- He is able to talk about the loss of his friend and has accepted his role without judgment.
- Although he continues to have a drink now and then, he has refrained from abusing alcohol or other substances.
- Alex reports he still has memories of the trauma, but he no longer responds physiologically to them. Emotionally he says that he "just feels sad" when he remembers.
- Last month he began part-time employment at a local hardware store.

ASSISTING SUPPORT PERSONS

Primary support persons are family members or close friends who play the roles of advocate, confidant, and "cheerleader." Healthcare workers are often involved with primary support

persons, assisting them to help with treatment and cope with the patient's symptoms as well as to take care of themselves. It is beneficial if support persons are assisted to:

- **Become educated about PTSD.** The more support persons know about the symptoms, effects, and treatment options for PTSD, the better they can understand what the patient is going through and keep things in perspective. When support persons are involved in the treatment process, patients experience a reduction in symptoms and the family environment is improved.
- Avoid exerting pressure but be willing to listen. Do not try to force the person with PTSD to talk. Support persons should understand that patients may have difficulty talking about their traumatic experiences, and in some cases, talking can make things worse. Support persons can be encouraged to be ready to listen when the patient is ready to speak.
- **Be patient.** It is important for support persons to understand that the process of recovery takes time and that there are often setbacks; the important thing is to remain positive and be patient.
- Recognize that withdrawal is part of the disorder. Often the patient may resist help. When this occurs, support persons should allow "breathing room" and let the patient know they are available when the patient is ready to accept help.
- Offer to attend medical appointments. When a support person attends appointments along with the patient, it can increase understanding and assistance with treatment.
- **Encourage participation.** Even though it may be difficult for the patient, it is important that support persons encourage the patient to return to a normal routine that includes socialization and celebrating with friends and family.
- Encourage contact with family and friends. A support system can help the person get through difficult changes and stressful times.
- **Encourage physical activity.** Exercise provides both physical and psychological benefits; it is important for health and helps clear the mind.
- Make personal health a priority. By eating a healthy diet, getting enough exercise and rest, taking time to be alone or with others involved in activities that are rejuvenating, it is easier for support persons themselves to maintain a positive attitude.
- Seek help if needed. Support persons who are having difficulty coping can seek help from family, support groups, or healthcare providers, who may refer them to a counselor or therapist.

(NCPTSD, 2022b)

CONCLUSION

The American Psychiatric Association first introduced the diagnosis of PTSD in 1980, and since then it has been the subject of much study and research. Evidence shows that there are numerous and variable situations that can lead to the development of PTSD as well as a variable time span in which the disorder may make itself known. There is yet much to be learned about this complex disorder and how best to treat it. It is necessary that healthcare professionals, regardless of the specialty or clinical situation in which they work, have a baseline understanding of how this disorder presents and the most current interventions available to both patients and support persons.



RESOURCES

National Center for PTSD (U.S. Dept. of Veterans Affairs) https://www.ptsd.va.gov/

Post-Traumatic Stress Disorder (National Institute of Mental Health) https://www.nimh.nih.gov/health/topics/post-traumatic-stress-disorder-ptsd

Posttraumatic stress disorder (National Alliance on Mental Illness) https://www.nami.org/About-Mental-Illness/Mental-Health-Conditions/Posttraumatic-Stress-Disorder

PTSD Alliance

http://www.ptsdalliance.org/professionals/

PTSD treatment (U.S. Dept. of Veterans Affairs) https://www.va.gov/health-care/health-needs-conditions/mental-health/ptsd/

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TEST

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- 1. In which way is the diagnosis of posttraumatic stress disorder classified in the *Diagnostic* and Statistical Manual of Mental Disorders (DSM-5)?
 - a. Mental disorder occurring among veterans with combat-related trauma
 - b. Mental disorder dependent upon internal factors
 - c. Trauma and stressor-related disorder
 - d. Anxiety and depressive disorder
- **2.** Which statement is **correct** regarding the epidemiology of PTSD?
 - a. Men are twice as likely to be diagnosed with PTSD as women.
 - b. Among those under 18, PTSD is more common in the early teen years.
 - c. PTSD increases the risk of suicide.
 - d. PTSD is more common among non-Indigenous people.
- **3.** Which factor increases a person's risk for developing PTSD?
 - a. Male gender
 - b. High education level
 - c. Higher socioeconomic status
 - d. Experiencing racial trauma
- **4.** Which term describes the core symptom of PTSD that involves experiencing recurrent, unwanted distressing memories of the traumatic event?
 - a. Intrusion
 - b. Avoidance
 - c. Negative alterations in cognitions and mood
 - d. Alterations in arousal and reactivity
- **5.** Which statement is **correct** concerning a clinical interview when assessing a patient for PTSD?
 - a. Clinical interviews are optimally highly structured.
 - b. Interviews should be conducted only by primary care providers.
 - c. A face-to-face clinical interview is the optimal method for assessment.
 - d. A formal assessment tool is typically not used for suspected PTSD.

- **6.** Which duration criterion is used to diagnose posttraumatic stress disorder?
 - a. At least one year after the event
 - b. Less than one week after the event
 - c. Longer than one month after the event
 - d. Two years or more after the event
- **7.** Which trauma-focused therapy uses desensitization techniques to address PSTD avoidance behaviors?
 - a. Cognitive behavioral therapy (CBT)
 - b. Narrative exposure therapy (NET)
 - c. Prolonged exposure therapy (PE)
 - d. Patient-centered therapy (PCT)
- **8.** Which outcome is the **primary** objective of effective intervention for patients with PTSD?
 - a. Absence of comorbid conditions
 - b. Remission of all symptoms
 - c. Reduction of symptoms
 - d. Resumption of work or active duty