# Chapter 2 Posttraumatic Stress Disorder: The Syndrome

One of the themes that informs this book derives from Thibault's (1984) observation that "the first step to making an accurate diagnosis is to think of it." That is, no psychometric test or printed decision tree can substitute for solid scholarship and experience in the field that the clinical therapist or forensic examiner practices in. Unfortunately, many psychological "experts," not to mention attorneys, judges, case managers, and the ordinary people that form the juror pools that many posttraumatic stress disorder (PTSD) cases depend on, have an incomplete or erroneous understanding of exactly what PTSD, is and what it is not.

Remember, if you are conducting a forensic psychological evaluation in a PTSD case, you will probably be called upon to explain the basis for your findings in a written report and/or testimony at deposition or trial (Chap. 7). This chapter will explain the phenomenology, diagnostic criteria, and theoretical models of PTSD and associated syndromes. The next chapter will place PTSD in the context of a variety of mental disorders that may be confused with PTSD or that may comorbidly complicate its diagnosis, treatment, and forensic analysis.

# **Demographics of PTSD**

The estimated lifetime prevalence of PTSD in the American population is 7.8%, with women more than twice as likely as men to receive a PTSD diagnosis (10.4 vs. 5.0%) over their lifetime. Whether or not a diagnosis of PTSD is made, the lifetime prevalence of having at least one traumatic event is over 60% for men and over 50% for women. Men are more likely to report experiencing combat trauma, physical attacks, and being threatened or kidnapped, while women more often report rape, sexual molestation, and neglect or abuse in childhood. Higher rates of traumatic events and subsequent development of PTSD are found in subjects with major mental illnesses and severe personality disorders, and multiple lifetime traumas and sexual abuse in childhood have been found to be most predictive of developing PTSD later in life. The lifetime prevalence of PTSD among Vietnam War veterans

is estimated to be 31% for men and 27% for women. The overall rate for recent Iraq and Afghanistan theater veterans so far appears to be somewhat lower, with estimates ranging from 15 to 20%. In civilian contexts, the occurrence rate of PTSD for motor vehicle accidents ranges from 9 to 39%; for rape and sexual assault, up to 80%; and for a terrorist attack, 10–35% (Friel et al. 2008; Guriel and Fremouw 2003; Hall and Hall 2007; Holbrook 2011; Kessler et al. 1995; Kulka et al. 1990; McNally 2004; Nash 2007).

In the overwhelming majority of cases, PTSD is a recoverable syndrome, with fewer than 15% of diagnosed cases showing clinically significant or functionally disabling symptoms 18 months after first diagnosis. Effective treatment accelerates recovery (Bowman 1997, 1999; Dyregrov and Regel 2012; Miller 1994a, 1998c, 1999a, c, d; 2007f, 2013b; Rosen and Lilienfeld 2008).

# **Clinical and Diagnostic Features of PTSD**

In medical classification, a *sign* is an objective finding on a clinical examination or specialized test, such as a bump on the head after a car accident, or reduced voice volume in a psychiatric patient. A *symptom* is a subjective experience reported by the patient, not subject to direct observation or verification. For example, the car accident victim reports headache and dizziness, while the psychiatric patient says she feels hopeless and has trouble concentrating. Finally, a *syndrome* is a set of signs and symptoms that occur in a fairly regular pattern from patient to patient, under a given set of circumstances, and with a specific set of causes, even though individual variations may be seen. Therefore, the car accident victim may be diagnosed with a concussion, and the psychiatric patient may receive a diagnosis of depression. Where the syndrome produces significant impairment in that person's functioning, it is called a *disorder;* e.g., cognitive disorder in the first case, major depressive disorder in the second.

In this conceptualization, *posttraumatic stress disorder* is defined as a syndrome of emotional and behavioral disturbance that follows exposure to a traumatic stressor or set of traumatically stressful experiences which are typically outside the range of normal, everyday experience for that person, and that causes distress or impairment in life functioning (APA 2000, 2013).

## **PTSD Diagnostic Criteria**

PTSD is associated with a characteristic pattern of signs and symptoms (APA 2000; Meek 1990; Merskey 1992; Miller 1994a, 1998c, 2007f, 2012c, 2013b; Modlin 1983; Parker 1990; Weiner 1992). No one particular sign or symptom is specific to PTSD; rather it is the combination of these features following a traumatic event that defines the syndrome; note that there is some degree of overlap among the diagnostic criteria in each category. Recently, the diagnostic criteria have been

Criterion A—precipitating traumatic stressor	The person has been exposed to a traumatic event in which he/she was confronted with death or injury to self or others and which involved the experience of intense fear, helplessness, or horror
Criterion B—persistent reexperiencing symptoms	The person persistently or repeatedly reexperi- ences the traumatic event through waking recol- lections, disturbing dreams, dissociative reliving experiences ("flashbacks"), and/or psychological or physiological hyperreactivity to stimuli that directly or symbolically resemble the traumatic experience
Criterion C—persistent avoidance symptoms	The person: (1) behaviorally avoids a range of situations which remind, resemble, or symbolically represent the traumatic event, leading to a constriction of social activity; and/or (2) experiences a psychological numbing to outside stimuli which constricts his/her emotional responsivity and interpersonal interaction
Criterion D—negative alterations in cogni- tions and mood	The person experiences impaired concentration or memory, exaggerated negative mood states, persistent and distorted ideas or feelings about the event (personal guilt, paranoia), emotional detachment from others, loss of enjoyment of life activities, and inability to experience positive emotions
Criterion E—marked alterations in arousal and reactivity	The person experiences increased anxiety, hypervigilance, irritability and anger, exagger- ated startle response, difficulty sleeping, and/or impaired attention, concentration, and/or memory

Table 2.1 Posttraumatic Stress Disorder (PTSD)-DSM-5 Revision

Onset of PTSD may be **acute** (duration less than 3 months), **chronic** (duration more than 3 months), or **delayed** (onset is 6 months or more following the traumatic stressor)

modified in DSM-5 (APA 2013); these are summarized in Table 2.1. Attention to these diagnostic criteria is crucial for distinguishing PTSD from a variety of other syndromes whose clinical manifestations may overlap with it and be confused with it (see Chap. 3).

*Criterion A—Precipitating Traumatic Stressor* The subject has been exposed to a traumatic event in which he/she was confronted with death or injury to self or others and which involved the experience of intense fear, helplessness, or horror. Note that PTSD is one of only two diagnoses in the entire DSM classification system that requires the presence of a known precipitating stressor; the other is called Adjustment Disorder. Because many of the component symptoms of PTSD (anxiety, depression, withdrawal, rumination, agitation, dissociation, etc.) are nonspecific and occur in a wide variety of syndromes, any combination of these symptoms do not necessarily equate diagnostically to PTSD, unless they can be attributed to a specific precipitating event or set of events.

*Criterion B—Persistent Reexperiencing Symptoms* Despite efforts to keep it out of his or her mind, the subject repeatedly reexperiences the traumatic event through waking recollections, disturbing dreams, dissociative reexperiencing, and/or psychological or physiological hyperreactivity to stimuli that directly or symbolically resemble the traumatic experience. In the most extreme cases, the subject may experience *flashbacks*, or dissociative reliving experiences, in which he seems to be mentally transported back to the traumatic scene in all its sensory and emotional vividness, sometimes losing touch with current reality. More commonly, the intrusive recollection is described as a persistent cognitive and/or emotional intrusion that "won't let me stop thinking about" the terrifying events surrounding the traumat.

Disturbing dreams are a common reexperiencing feature of PTSD. Sometimes the patient's nightmares replay the actual traumatic event; more commonly, the dreams echo the general theme of the trauma, but differ in terms of specific content. For example, a patient traumatized in an auto accident may dream of falling off a cliff or of having a wall collapse on him. A sexual assault victim may dream of being attacked by wild animals or drowning in a muddy pool. The emotional intensity of the original traumatic experience is retained but the dream partially disguises the event itself. This symbolic reconfiguration of dream material is, of course, one of the main pillars of Freudian psychodynamic theory (Horowitz 1986; Miller 1991b).

*Criterion C—Persistent Avoidance Symptoms* Partly in response to the intrusive reexperiencing symptoms, the subject behaviorally avoids a range of situations which remind, resemble, or symbolically represent the traumatic event, leading to a restriction of social activity. A second type of avoidance is more internal: the subject experiences a psychological numbing to outside stimuli which constricts his or her emotional responsiveness and interpersonal interaction; people may describe him as "spaced-out" much of the time. In general, the subject tries to blot out the event from his mind. He avoids thinking about the traumatic event and shuns news articles, radio programs, or TV shows that remind him of the incident. "I just don't want to talk about it," is the standard response, and the subject may claim to have forgotten important aspects of the event. Over 90% of PTSD subjects report decreased sexual activity and interest; this may further strain an already-stressed relationship. In some cases, complete impotence or frigidity may occur, especially in cases where the traumatic event involved sexual assault.

*Criterion* D—Negative Alterations in Cognitions and Mood The subject complains of having gotten "spacey," "fuzzy," or "ditsy." She may have poor memory or distorted recollections of the traumatic events or surrounding events, as well as poor concentration and memory for present circumstances. For example, she has trouble remembering names, tends to misplace objects, loses the train of conversations, or can't keep her mind focused on work, reading material, or family activities. She may worry that he has brain damage or that "I'm losing my mind." Clinicians should be careful to assess for comorbid traumatic brain injury (Chap. 3). Emotionally, the subject shuns friends, neighbors, and family members and just wants to be left alone. She has no patience for the petty, trivial concerns of everyday life—bills, gossip, news events—and gets annoyed at being bothered with these piddles. The

hurt feelings this engenders in those she rebuffs may spur reactive avoidance, leading to a vicious cycle of rejection and recrimination.

Criterion E-Marked Alterations in Arousal and Reactivity The subject experiences increased anxiety, hypervigilance, irritability, anger, exaggerated startle response, difficulty sleeping, and/or impaired attention, concentration, and memory. The subject describes a continual state of free-floating anxiety or nervousness. There is a constant gnawing apprehension that something terrible is about to happen. He maintains an intense hypervigilance, scanning the environment for the least hint of impending threat or danger. Panic attacks may be occasional or frequent. About onehalf of PTSD subjects show a classic startle reaction: surprised by an unexpected door slam, telephone ring, sneeze, or even just hearing his name called, the patient may literally jump out of his seat. There may be a pervasive chip-on-the-shoulder edginess, impatience, loss of humor, and quick anger over seemingly trivial matters. Friends may grow annoved with this pervasive "bad attitude," coworkers may shun the subject, and family members may feel abused and alienated. A particularly common complaint is the patient's increased sensitivity to children's noisiness or the family's bothering questions. Impulsive behavior and substance abuse may be seen, especially where there has been a premorbid history of these problems.

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# **Acute Stress Disorder**

Acute Stress Disorder (ASD) was introduced as a diagnostic category into the DSM-IV (APA 1994) primarily to help identify those at risk of developing later PTSD. ASD is defined as a reaction to the traumatic stress that occurs within 4 weeks following the index trauma. Although ASD focuses more on dissociative symptoms than does PTSD, it also includes symptoms of reexperiencing, avoidance, and hyperarousal. Between 60 and 80% of individuals meeting criteria for ASD following a traumatic event will meet criteria for PTSD up to 2 years later (Koch et al. 2006).

#### **Evolution of the Trauma Response**

Depending on the circumstances, the reaction to a traumatic event can begin within the first few moments of the crisis. Hollywood portrayals to the contrary, during most emergencies, the majority of people involved do not become overwhelmed or paralyzed by intense fear or shock; in fact, many behave quite adaptively and even heroically (Aldwin 1994; Weiner 1992; Miller 1998c, 2003, 2004, 2013b). In an acute crisis, the entire organism seems to go on automatic and is directed toward survival. A certain degree of adaptive depersonalization or dissociation may take place, a self-protective mental detachment from the surrounding events that enables the person to deal with the practical survival needs of the situation; this is often described in retrospect as "like being in a dream" or "happening in slow motion."

After the event, the subject may experience the wrenching emotional seesaw of painful intrusion alternating with numbing denial, along with the other post-traumatic stress symptoms described above. In the best cases, the major symptoms and disturbances diminish in the course of weeks to months as the event becomes integrated into the life narrative and personal history of the individual. However, in some cases, a number of cognitive and emotional roadblocks may stand in the way of the trauma survivor's making peace with himself and the world (Everstine and Everstine 1993; Matsakis 1994; McCann and Pearlman 1990; Miller 1994a, 1998c, 2001d, 2008c, 2012b), as follows.

*Guilt and Stigma* Many trauma survivors believe that they could have somehow prevented the traumatic event from occurring. Others interpret the event as a kind of hard knocks wake-up call for their poor judgment or as cosmic punishment for present or past misdeeds. Many survivors feel "marked by fate," especially if this is not their first traumatic experience. Still others experience a violation of their bodily and territorial integrity. They feel fragmented and scattered, and the slightest upset makes them anxious, irritable, and isolative.

*Existential Crisis* The traumatic event and its aftermath comprise a shattering existential experience (Herman 1997). The trauma survivor is starkly confronted with his or her own vulnerability and mortality in a way that most people evade by using the normal, adaptive denials of everyday life. The victim's existential violation may be all the more painful if the trauma took place at the hands of another person; worse still if the actions of the malfeasor were maliciously intentional or uncaringly negligent. And even more devastating may be traumas perpetrated by a known and heretofore trusted person, such as a family member, friend, workmate, neighbor, doctor, or clergy member (Miller 1998c, 2008c, 2012c; Neustein 2009; Plante 2004).

*Trauma Generalization* Many trauma survivors generalize the helplessness of the cognitive survival state to other aspects of their lives, now feeling powerless to control even their own behavior or to influence the actions of others. They may impute domineering or retaliatory motives to anyone who tries to exert even the normal, socially appropriate influence or control over them, e.g., bosses, doctors, parents, or spouses. In some cases, outright paranoia and hostility may develop.

*Uneven Recovery Course* Even after things seem to have calmed down, when the trauma survivor has achieved some measure of delicate equilibrium, the stresses of returning to the normal routines of work and family life may trigger PTSD reactions. Also, delayed PTSD reactions may crop up years or even decades after the event, as a superimposed illness, injury, loss, or just the aging process begin to deplete the individual's adaptive reserves (Bonwick and Morris 1996; Christenson et al. 1981; Hamilton 1982; Kaup et al. 1994; McLeod 1994).

In general, the more severe the trauma and the longer the trauma response persists, the more unfavorable the outcome. That is why it is important for all traumatic disability patients to receive quick, effective treatment (Miller 1998c, 2008c). And even after a delay, or when the trauma syndrome takes time to surface, proper treatment can still have a significant impact, so no situation should ever be considered categorically hopeless.

#### **Military Posttraumatic Stress Disorder**

The National Vietnam Veterans Readjustment Study (NVVRS; Kulka et al. 1990) estimated that the lifetime prevalence of PTSD amongst Vietnam War veterans was 30.9% for men and 26.9% for women. Higher rates of traumatic events and subsequent development of PTSD are found in those with preexisting or co-occurring major mental illnesses such as psychotic disorders or borderline personality disorder.

Military PTSD sufferers may experience more persistent symptoms than civilian subjects. The NVVRS estimated that 15% of Vietnam veterans diagnosed with PTSD still had the full or partial syndrome 15 years after returning from Vietnam (Kulka et al. 1990). The National Comorbidity Study (Kessler et al. 1995) showed that more than a third of those with service-related PTSD never fully remit, with or without treatment, even after many years, although there is no information as to whether symptom severity and overall disability decline over time. Many veterans may experience PTSD symptoms for decades (Bonwick and Morris 1996; Lee et al. 1995; Miller 1999d; Nichols and Czirr 1986; Potts 1994; Schnurr et al. 2005).

More contemporaneously, approximately 15–20% of military service members, or up to 300,000 of the 1.64 million veterans who have served in the Iraq and Afghanistan theaters since 2001, suffer from PTSD. Researchers have documented a *dose-effect relationship*, in that the incidence of PTSD cases correlates with the number of combat exposures, from a rate of 9.3% for soldiers involved in one or two firefights to 19.3% for those involved in five or more firefights (Holbrook 2011; Koren et al. 2007; MacManus and Wessely 2012). Nevertheless, soldiers who experience persistent, disabling PTSD symptoms as a consequence of combat are still clearly in the minority.

#### **Civilian Posttraumatic Stress Syndromes**

Although, historically, much of the initial interest in traumatic stress reactions has come from the field of military psychology and psychiatry, most of the PTSD cases seen by practitioners in routine mental health practice, and that comprise the caseloads of most forensic examiners, involve civilian instances of PTSD from a variety of sources (Miller 1998c, 1999e, 2002b, 2007d, 2008c, 2012b, 2013b).

# Medical Procedures

Emergency medical care, lifesaving though it may be, often employs procedures for which the patient has little or no preparation (Shalev et al. 1993). The emotional impact of a serious illness or injury may be compounded by these invasive, painful, and frightening medical procedures, such as occurs in emergency treatment for a heart attack, motor vehicle accident, or workplace injury. Intrusive recollection and avoidance of stimuli are frequently observed among hospitalized survivors of trauma, but tend to be time-limited and self-remitting. However, medical conditions or procedures themselves may constitute possible traumatic stressors, as they are often associated with sudden onset, feelings of helplessness, lack of control by the patient, and/or a perceived or actual threat to life (Miller 1994a, 1998c; Patterson et al. 1990; Shalev et al. 1993).

# Pain

In addition to fear and threat to life, one of the most traumatically stressful aspects of injuries, or the treatments for them, may be the unavoidable physical pain that is sometimes involved (Miller 1990c, 1993b, 1994a, 1998c, 2002b). Research shows that the prevalence of PTSD among physically injured survivors of stressful events is higher than that of survivors without physical injury in both military and civilian traumas, and that pain can be the most stressful aspect of a traumatic injury (Helzer et al. 1987; Malt et al. 1989; Pitman et al. 1989; Schreiber and Galai-Gat 1993), although in some cases, physical injury may actually defuse and limit the stress response by giving the patient something "real" on which to focus his or her concern (Modlin 1983).

# Traumatic Brain Injury

A physical injury that produces pain may also result in a *traumatic brain injury* (TBI) that is followed by a *postconcussion syndrome* (PCS). Although this syndrome is usually conceptualized by neuropsychologists in terms of cognitive impairment, the emotional and social effects may be equally or even more traumatizing (Denney and Sullivan 2008; Miller 1990a, b, 1991a, 1992, 1993c, 1994b, 2002b, 2012c; Parker 1990, 2001; Raskin and Mateer 2000; Small 1980; Varney and Roberts 1999; Vasterling et al. 2012). Brain injury is a distinct form of stressor because the person's very organ of coping has been damaged. Thus, the subject's ability to maintain vocational, domestic, or academic responsibilities—one's normal hold on reality—is impaired. Physical effects of PCS include headaches, and hypersensitivity to light, sound, and temperature changes. Cognitive effects of PCS include impairment of attention, concentration, memory, complex reasoning,

organization, impulse-control, and self-pacing of activities. Significant emotional and stress reaction features of PCS include anxiety, depression, anger, intrusive thoughts, preoccupation with the trauma, self-deprecation, social withdrawal, disintegration of selfhood, and behavioral regression. Impulsivity, egocentricity, and lack of insight into deficits and behavior may lead to antisocial behavior and alienation from family and care providers.

Note that many of the symptoms of PCS overlap with those of PTSD, confounding the diagnosis in many cases. A further complication is that, especially with military injuries and civilian vehicle accidents, PCS and PTSD can co-occur, the symptoms of each exacerbating those of the other (Miller 1998d; Vasterling et al. 2012).

## Toxic Trauma and the Toxic Stress Syndrome

Exposure to toxic substances in the home or workplace may produce a variety of neurological, cognitive, and emotional disturbances that may in some cases be wholly or partly attributed to the direct physical effects of toxic materials on the nervous system (Eskanazi and Maizlish 1988; Hartman 1995). Additionally, however, the experience of a potentially life-threatening or health-impairing chemical poisoning episode can be overwhelmingly frightening, leading to the development of a PTSD-like *toxic stress syndrome* (Miller 1993a, 1995, 1998c; Morrow et al. 1989, 1991, Schottenfield and Cullen 1985). Symptoms include anxiety, depression, impaired concentration, somatic preoccupation, intrusive recollections, and traumatic dreams. Often, symptoms are triggered by specific trauma-reminders, especially exposure to certain odors. Emotional disturbance and psychological and behavioral impairment are often uncorrelated with level and duration of toxic exposure: in fact, even where there has been no actual exposure, the mere belief that one has been contaminated may precipitate the syndrome.

## Motor Vehicle Accidents

We live in a car culture and motor vehicle accidents (MVAs) are a major cause of injury and death in the USA and other industrialized nations, especially for people under 30 (Blanchard and Hickling 2003). A wide variety of post-MVA traumatic psychological symptoms have been described, including anxiety, panic attacks, intrusive recollections, dissociative flashbacks, driving and riding phobias, traumatic nightmares, and disruption of work and family life (Blanchard et al. 1994; Brom et al. 1989; Foeckler et al. 1978; Hodge 1971; Kuch 1987; Kuch and Swinson 1985; Malt et al. 1993; Munjack 1984; Parker 1996) Since MVAs can result in multiple injuries, there often occurs an "unholy trinity" of post-MVA effects, consisting of: (1) postconcussion syndrome due to head trauma; (2) chronic pain due to low back or cervical whiplash injury; and (3) posttraumatic stress disorder. These syndromes often exacerbate one another in a vicious cycle (Miller 1998c, 1998d).

# Disasters

While the posttraumatic reactions to natural and man-made disasters in many ways resemble those to other traumatic stressors, several features make the disaster experience unique (Abueg et al. 2000; Aldwin 1994; Freedy et al. 1992; Green 1991; Miller 1998c; Raphael 1986; Reijneveld 2003; Smith et al. 1990; Ursano et al. 1995; Weiner 1992).

First, there is often little or no warning, such as in an earthquake or building collapse. Even when advance notice is available, as with a hurricane that is tracked for days, people often display a stupefying capacity for denial and minimization until it is too late to act effectively. Second, most natural and man-made disasters-chemical spills, tornadoes, tsunamis, nuclear power plant meltdowns, terrorist attacksgenerally occur within a relatively short time frame. By the time the full extent of the threat is realized, the worst may be over and the aftermath must now be dealt with. Third, disasters typically involve extreme danger, including loss of life. At the very least, people lose something of value, often in both material and emotional terms. Fourth, both natural and technological disasters provide very little chance for people to exert any kind of meaningful human control, so that actual and perceived helplessness magnify the traumatic effect of disasters. Finally, disasters happen to many people at once, often causing victims to feel that the whole world is coming to an end, or that the larger world has abandoned them. On the positive side, a sense of communal purpose and mutual support can be important in mitigating the effects of disaster-related traumatic stress.

# **Crime Victim Trauma**

The effects of trauma are often amplified when the harm comes through intentional human malevolence. These psychic injuries violate our sense of security, stability, and community. As difficult as it may be to bear the traumas of injury and loss that occur in accidents and mishaps of nature, far more wrenching are the wounds that occur as the result of the callous and malicious acts of our fellow human beings. Trauma due to interpersonal violence can thus be especially severe and long-lasting (Falsetti and Resnick 1995; Foa and Riggs 1993; Freedy et al. 1994; Hough 1985; Miller 1994a, 1998c, 2008c, 2012b; Rothbaum et al. 1992; Spungen 1998).

### Workplace Violence

Many people spend most of their waking hours at work, so not feeling safe on the job can result in both chronic stress and acute trauma. The National Institute of Occupational Safety and Health (NIOSH) reports that homicide is the second lead-ing cause of death in the workplace. Murder is the number one workplace killer of women and the third leading cause of death for men, after motor vehicle accidents



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