Chapter 8
Trauma and Stressor-Related Disorders

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Description of the Disorders

Most people experience at least one traumatic event during the course of their lifetime. Although research indicates that up to 80% of those exposed to traumatic events will be at increased risk for developing post-traumatic stress disorder (PTSD), only a small, yet significant, number will actually go on to develop the disorder (Birur, Moore, & Davis, 2017). Moreover, those who don't eventually meet full diagnostic criteria for PTSD will often develop a partial, also called subsyndromal or subthreshold, presentation of PTSD symptoms (Cukor, Wyka, Jayasinghe, & Difede, 2010). Despite not meeting full criteria for PTSD, partial symptoms can significantly impair function and adversely affect quality of life (Cukor et al., 2010). In addition to PTSD, there are two other trauma and stress-related disorders for adults that are included in the Trauma and Stress-Related Disorders category of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association [APA], 2013). Mental health professionals are likely to encounter people who have experienced traumatic events. Therefore, clinicians should be knowledgeable and skilled in diagnosing, assessing, and treating trauma and other stress-related disorders. This section will review the core definitions, criteria, and prevalence of each of these disorders.

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Core Trauma-Related Definitions

The Definition of Psychological Trauma

Although the word "trauma" is derived from Latin and means "physical wound," toward the end of the nineteenth century the definition of the term was expanded to include "mental wounds" (Lasiuk & Hegadoren, 2006). Broadly, psychological trauma can be defined as an overwhelmed response to a traumatic or stressful event that exceeds available resources. Responses to traumatic events can range from slight to significant (Courtois & Gold, 2009). Some experiences may be traumatic for one person and not another. For example, two people may be in the same car accident, but their subjective perception of the accident may vary greatly. The expression of distress in response to trauma is also highly variable. Some people may exhibit symptoms of anxiety, fear, or dysphoria (internalized expressions), whereas others may predominantly display aggression and anger toward others (externalizing expressions) (APA, 2013).

The definition for psychological trauma is broad because it encompasses a myriad of responses to one-time events, (e.g., car accident), prolonged or reoccurring events (e.g., soldiers engaged in military action), exposure to multiple traumas, also referred to complex trauma (e.g., childhood abuse and community violence), and collective trauma (e.g., a community destroyed by a disaster) (Courtois, 2008; Courtois & Gold, 2009). While traumatic stress can result from either natural (e.g., tsunami, hurricane, earthquake) or human-caused events (e.g., terrorism, industrial accident, interpersonal abuse), research shows that human-caused events of betrayal or interpersonal violence are more likely to elicit severe reactions (Courtois & Gold, 2009).

The Definition of Stress

While sometimes used interchangeably, stress and stressor are not synonymous: Stress results from a combination of biological, psychological, and social factors, whereas stressors are an environmental event or stimulus that can be perceived as positive or negative (Carter, 2007). For example, a negative perception of a stressor could induce a stress reaction that in turn could develop into either a trauma or stress-related mental disorder. These disorders are described in Table 8.1.

Post-traumatic Stress Disorder

Frequently described as embodying "the invisible wounds of war," PTSD is one of the more prevalent, yet complex, disorders. The DSM-5 reflects significant alteration in the criteria for PTSD from its former version in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed. APA, 2000; DSM-IV-TR) (Hoge, Riviere,

Table 8.1 Comparison of diagnostic features for PTSD, acute stress disorder, and adjustment disorder

PTSD	Acute stress disorder	Adjustment disorder
Traumatic event (terms defined)	Traumatic event (terms defined)	Stressors (terms not defined, stressor identifiable)
Recurrent, involuntary, and intrusive distressing memories	Recurrent, involuntary, and intrusive distressing memories	Marked distress that is out of proportion to the severity or intensity of the stressor (cultural factors and external context should be considered)
Recurrent distressing dreams in which the content or affect are related to the event	Recurrent distressing dreams in which the content or affect are related to the event	Significant impairment in social, occupational, or other important areas of functioning
Dissociative reactions in which the individual feels or acts as if the event recurring	Dissociative reactions in which the individual feels or acts as if the event recurring	Duration: beginning of distress within 3 months of stressor's onset.
Intense/prolonged psychological distress at exposure to internal or external cues that resemble an aspect of the event	Intense/prolonged psychological distress at exposure to internal or external cues that resemble an aspect of the event	Duration: symptoms do not persist for more than 6 months after stressor/consequences terminated.
Avoidance or efforts to avoid distressing memories/ thoughts/ feelings with the event	Persistent inability to experience positive emotion	
Avoidance/efforts to avoid external reminders that arouse distressing memories, thoughts of the event	An altered sense of reality of one's surroundings or oneself	
Inability to remember an important aspect of the event	Inability to remember an important aspect of the traumatic event	
Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world.	Efforts to avoid distressing memories/thoughts/feelings closely associated with the event	
Persistent, distorted cognitions about the cause or consequences of the event	Efforts to avoid external reminders that arouse distressing memories/ thoughts/feelings with the event	
Persistent negative emotional state	Sleep disturbance	
Markedly diminished interest/ participation in activities	Irritable/angry behavior	
Feelings of detachment from others	Hypervigilance	
Persistent inability to experience positive emotions	Problems with concentration	

Table 8.1 (continued)

PTSD	Acute stress disorder	Adjustment disorder
Irritable/angry behavior	Exaggerated startle response	
Reckless/self-destructive behavior	Duration of disturbance: 3 days to 1 month	
Hypervigilance		
Exaggerated startle response		
Problems with concentration		
Sleep disturbance		
Duration of disturbance >1 month		

Note. Adapted from the DSM-5 (APA, 2013)

Wilk, Herrell, & Weathers, 2014). One major change was moving PTSD from the anxiety disorders chapter and placing it in a new chapter: Trauma and Stressor-Related Disorders (Hoge et al., 2014). It was argued that this change was warranted because while there is significant comorbidity between post-traumatic stress and anxiety, the two disorders are inherently different. Additional changes included revision and expansion of the trauma criterion (discussed below) as well as adding three symptoms to the existing 17 and division of the existing avoidance cluster (Hoge et al., 2014).

Criterion A defines *exposure to traumatic event*. Not disregarding academic calls for the elimination of Criterion A altogether in the upcoming DSM-5, the subcommittee on PTSD eventually determined that exposure was an essential component of the PTSD construct (Friedman, 2013). Exposure was once defined in very general terms. With DSM-5 revisions, the definition of a traumatic event now specifically includes "sexual violence" in addition to actual or threatened death or serious injury. DSM-IV-TR criteria included "a threat to the physical integrity of self or others," but in light of the significant percentage (approximately 30%) of women diagnosed with PTSD as a result of sexual violence (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995), inclusion of "sexual violence" was warranted. The revisions to Criterion A both expanded its meaning and provided more specificity. With DSM-5, an individual no longer has to personally experience or witness the traumatic event. Subsection 3 notes that exposure to traumatic event includes "learning that the traumatic event(s) occurred to a close family member or close friend" (APA, 2013, p. 271). However, the event must have been violent or accidental. In addition, repeated or extreme exposure to "aversive details of the violent act" as part of one's employment or volunteer responsibilities, such as those experienced by first responders collecting human remains, crisis counselors listening to details of a traumatic event, or law enforcement working in sexual or violent crimes, are now also considered exposure. However, watching traumatic events via electronic media or TV is not sufficient for meeting Criterion A. While the requirements included in Subsections 1 through 4 of Criterion A are not exhaustive, they do provide structure and set expectations regarding what can be considered an exposure for the purposes of diagnosing PTSD.

Criterion B (also known as cluster B) requires the presence of at least one *intrusion* symptom out of five possibilities. The five intrusive symptoms include (1) "Recurrent, involuntary, and intrusive distressing memories of the traumatic event" (APA, 2013, p. 271), which apply only to distressing sensory recollection (e.g., specific sites, smells, touch, etc.) rather than abstract thoughts (Friedman, 2013); (2) "Recurrent distressing dreams in which the content…are related to the traumatic event(s)" (APA, 2013, p. 271) that includes both trauma-related dreams and replay of the traumatic event (Friedman, 2013); (3) "Dissociative reactions (e.g. flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring" (APA, 2013, p. 271), where flashbacks are in a continuum ranging from no awareness to total awareness; (4) "Intense or prolonged psychological distress…to internal or external cues that symbolize or resemble…the traumatic event(s)" (APA, 2013, p. 271), for example, a combat veteran who experiences psychological distress (anxiety, irritation, fear) when hearing July 4 fireworks; and (5) "Marked physiological reactions to internal or external cues that symbolize or resemble…the traumatic event(s)" (APA, 2013, p. 271), for example, a violent robbery victim who was robbed while walking by himself at night now experiences panic symptoms in the form of heart palpitation, sweaty palms, and tremors every time he needs to walk by himself at night.

Criterion C requires at least one *avoidance of stimuli* symptom associated with the traumatic event. Similar to Criterion B (intrusion), Criterion C (avoidance) has always been considered a core element of PTSD. Either (1) "Avoidance of or efforts to avoid distressing memories, thoughts or feelings associated with the traumatic event(s)" (APA, 2013, p. 271) or (2) avoidance of external reminders, such as people, activities, places, etc. that arouse distressing experience in the form of memories, thoughts, or feelings associated with the traumatic event has to be reported by the patient. An example of avoidance is a car accident survivor who refuses to drive on the road where the accident took place. Traveling on the road triggers distressing memories of the car accident which the survivor attempts to avoid.

Negative alterations in mood and cognition, as defined under Criterion D, are symptomatic of individuals with PTSD (Friedman, 2013). Two or more of the following seven criteria need to be met: (1) an inability to remember an important element of the traumatic event, usually in the form of dissociative amnesia. Derived from hysteria disorders in the nineteenth century, dissociative amnesia in trauma developed through the years without a specific definition. Nijenhuis and Van der Hart (2011) defined the term as follows: "Dissociation in trauma entails a division of an individual's personality, that is, of the dynamic, biopsychosocial system as a whole that determines his or her characteristic mental and behavioral actions" (p. 418). Geared toward surviving the trauma, an individual's personality is reorganized into two or more dissociative parts that are kept separate and experience the world differently (Nijenhuis & Van der Hart, 2011). Trauma-caused dissociation is manifested through negative or positive symptoms. The former includes dissociative amnesia and loss of affect and will, while the latter includes dissociative flashbacks or the re-experiencing of the traumatic events (Nijenhuis & Van der Hart, 2011); (2) alteration in cognition in the form of persistent and exaggerated negative

perception about self, others, or the world (e.g., "I am bad" or "People are bad"); (3) alteration in cognition in the form of persistent and distorted negative perceptions about the cause or consequences of the traumatic event ("e.g., "If I hadn't worn this dress the rape would not have happened""); (4) persistently experiencing negative mood, such as sadness, fear, anger, etc.; (5) diminished participation in significant activities in comparison to period prior to the trauma; (6) detachment or estrangement from others with whom the individual was close prior to the trauma; and (7) "Numbing inability" (Friedman, 2013, p. 551) in the form of an inability to experience positive emotions such as happiness or loving feelings (APA, 2013).

Criterion E clusters symptoms of *marked alterations in arousal and reactivity associated with the traumatic event*. Similar to Criterion D, two or more of the following six symptoms need to be met: (1) irritability and anger outbursts in the form of verbal or physical aggression toward others or objects. The behavior does not need to be triggered by provocation; (2) reckless or self-destructive behavior, such as non-protected/unsafe sexual relations, suicidal attempts, reckless driving, etc. (Friedman, 2013). Due to the high comorbidity, substance use may also be included here; (3) hypervigilance is manifested through maladaptive, heightened sensitivity, and attentional bias toward cues of potential threats or dangers in the environment (Kimble et al., 2014); (4) exaggerated startle response in the form of increased physiological reactivity (i.e., even as minor as frequent eye blinking in response to certain sounds) to events or thoughts associated with the trauma; (5) problems with concentration, including short-term memory problems; and (6) difficulties sleeping in different forms (e.g., difficulty falling asleep or waking up multiple times during the night). Criterion F requires that Clusters B–E appear for more than 1 month after the traumatic event (APA, 2013). If PTSD symptoms are evident immediately after the trauma, another disorder such as acute stress disorder should be considered.

Although it is important to detect the relevant symptoms to establish a correct diagnosis, it is similarly important to identify how the symptoms interfere with an individual's daily functioning. Criterion G requires that the clinician compares their client's daily functioning before and after the traumatic event and then determine whether these changes interfere with daily functioning. In making the comparison, the clinician should explore different areas of an individual's life, such as work (e.g., has work experience changed, employment-related issues), family (e.g., relationship with significant others, children, parents, siblings), social (e.g., maintaining friendships, altercations with friends), and other important areas, such as pleasurable activities (e.g., has the individual stopped exercising, attending concerts, watching TV). In addition, the clinician should verify that the symptoms or disturbance in daily functioning is not due to any type of substance use (e.g., prescribed or non-prescribed medication, illegal substance, alcohol) or a medical condition that could better account for the symptoms and disruption in daily functioning. While this is a standard criterion that is included in almost all DSM-5 disorders, it is important to rule out the possibility that the symptoms are the result of substance use because of the high comorbidity between substance use (especially opioids) and PTSD.

Depersonalization and derealization, subtypes of dissociation, may accompany PTSD symptoms and if so should be indicated as specifiers. These subtype additions to PTSD were first introduced in DSM-5. Depersonalization is a distortion in perception in which the individual experiences detachment/dissociation from reality, similar to an "out-of-body experience" (APA, 2013). Like depersonalization, derealization also describes a distortion in perception where the individual loses a sense of reality or the external world (e.g., things seem to change shape or size) (APA, 2013). While dissociation symptoms are not considered a "classic" criterion for PTSD, it is still essential to assess as their presence suggests increased symptom severity, functional impairment, and risk for suicide (Friedman, 2013).

Prevalence of PTSD

As discussed in detail above, a traumatic event is a prerequisite to developing PTSD. As noted earlier, research indicates that most people will experience at least one traumatic event during their lifetime. A national comorbidity survey with a total of 8098 respondents revealed that 60.7% of men and 51.2% of women experienced at least one traumatic event during their lifetime (Kessler et al., 1995). Other research suggests even larger estimates with up to 80% of the population exposed to a significant traumatic stressor (Birur et al., 2017).

Research examining the prevalence of PTSD in the US population shows that only a small percentage of those who experience a traumatic stressor go onto develop PTSD. A systematic review of 41 studies that assessed for PTSD in over seven million primary care patients found that 12.5% of the sample met criteria for PTSD (Spottswood, Davydow, & Huang, 2017). More specifically, of the seven million primary care patients, the study found 11.1% prevalence among the civilian population, 12.5% prevalence in the special-risk population, and 24.5% among US military veterans, more than double the prevalence of PTSD among civilian population. Ellis and Zaretsky (2018) reported lower, yet still significant, PTSD rates of 14–18% for deployed US military service members. Slightly lower PTSD prevalence is provided by Kessler, Chiu, Demler, and Walters (2005), where the study analyzed data provided by the National Comorbidity Survey and found that approximately 7% of the population endorsed chronic PTSD symptoms. Similar rates were provided by Difede, Olden, and Cukor (2014) indicating that 8–9% of the population was at risk for experiencing PTSD during their lifetime. Higher rates of PTSD ranging between 10% and 40% are estimated when severe or complex trauma such as surviving the Holocaust, rape, or abuse was experienced (De Kloet, Joëls, & Holsboer, 2005).

While multiple studies reveal PTSD rates that are close to 8% in the general population, it is important to remember that such estimates are based on US samples. Among Germans, a study by Perkonigg, Kessler, Storz, and Wittchen (2000) provided both lower trauma exposure and PTSD rates. The study reported that only 26% of men and 17.7% of women were exposed to a traumatic event during their lifetime (in comparison to well over 50% in US population), and of those who were

exposed, only 1% of men and 2.2% of women endorsed full PTSD symptomology (Perkonigg et al., 2000). Research on German military service members also found significantly lower rates of PTSD when compared to their US servicemember counterparts, including those who participated in combat as well as those who experienced noncombat traumatic events (Bandelow et al., 2012).

There is very compelling evidence that interpersonal violence, in contrast to accidents and natural disasters, increases risk for developing PTSD (Ellis & Zaretsky, 2018). Rothbaum, Foa, Riggs, Murdock, and Walsh (1992) found that 47% women rape survivors experienced PTSD symptoms approximately 3 months following their assault. Importantly, while the women showed significant reductions in PTSD symptoms from week 1 and week 4 (from 94% to 65%, respectively), women who met criteria for PTSD after week 4 did not continue to experience significant improvement in symptoms over time. Similar findings revealing an increased likelihood of developing PTSD as a result of interpersonal violence were found in Germany (Butler, Moffic, & Turkal, 1999) and Italy (Favaro, Degortes, Colombo, & Santonastaso, 2000).

Acute Stress Disorder

A diagnosis of acute stress disorder helps to identify individuals who are at increased risk for developing PTSD (Bryant, 2003). Studies suggest that approximately 80% of those who are diagnosed with acute stress disorder eventually develop chronic PTSD (Bryant, 2003; Bryant, Moulds, Guthrie, & Nixon, 2005). Criterion A of acute stress disorder is identical to Criterion A of PTSD. Although both disorders require some type of exposure to a traumatic event, there are key differences in required symptoms and their duration (see Table 8.1). First, symptoms needed to make a PTSD diagnosis are listed in categories (i.e., B through E) with specific requirements regarding the number of symptoms needed for each (e.g., Cluster B requires at least one symptom, while Cluster E requires at least two), whereas Criterion B for acute stress disorder requires the presence of any nine symptoms out of the following categories: intrusion, negative mood, dissociative symptoms, avoidance symptoms, and arousal symptoms. For acute stress disorder, the intrusion category provides several ways to note how the individual re-experiences the traumatic event: (B1) re-experiencing the trauma through unwanted, recurring, and intrusive memories of the traumatic event where the memories can be manifested through sensory, emotional, or physiological distress; (B2) re-experiencing the trauma through recurring dreams related to the traumatic event that cause distress. For example, a war veteran could experience recurring nightmares about being shot; and (B3) re-experiencing the trauma through dissociative reactions (APA, 2013). Dissociative reactions, depersonalization, and derealization were discussed in detail in the PTSD section of this chapter.

In the minutes and hours after a traumatic event, it is expected that those who have been exposed will be very distressed. To avoid pathologizing strong but normal reactions, a diagnosis of acute stress disorder is not made until at least 3 days after

an event. Dissociative responses that persist beyond 3 days that should be considered include (B4) re-experiencing the trauma through intense or prolonged psychological (e.g., fear, sadness, shame) or physiological (e.g., panic symptoms) distress where the distress is triggered by internal or external cues that resemble those of the traumatic event. The negative mood category (B5) requires that the individual finds it impossible to experience positive state of mind (e.g., intimacy for a sexual violence survivor) or has unremitting negative mood (e.g., sadness, anger, shame) after the trauma. The dissociative symptoms category requires alterations in awareness in the form of (B6) the presence of depersonalization (e.g., the individual does not feel in control of their own reactions, as if looking at oneself from the outside) or derealization (e.g., the individual views the environment differently where shapes change their form or time slowing) and (B7) inability to remember important aspects of the traumatic event (i.e., dissociative amnesia) (APA, 2013).

The avoidance symptoms category can be divided into efforts to avoid internal and external stimuli associated with the traumatic event: (B8) efforts to avoid internal stimuli includes refusal to talk about memories about the traumatic event, share thoughts, or feelings (e.g., refusing to use psychological treatment); (B9) efforts to avoid external stimuli associated with the traumatic event include avoidance of going to places or meeting with people that remind the individual of the trauma (e.g., using an elevator after experiencing an assault in an elevator). Individuals with acute stress disorder experience heightened arousal in the form of (B10) sleep disturbance in various forms (e.g., due to nightmares, difficulties sleeping, or waking up during the night with difficulties falling asleep); (B11) angry outbursts or irritability (e.g., anger eruption with no apparent reason or a disproportionate reaction to a trigger; (B12) hypervigilance in the form of heightened sensitivity to potential threats, whether related or unrelated to the traumatic event; (B13) concentration problems including difficulties attending to tasks that require focus or remembering daily events; and (B14) exaggerated startle in response to unexpected stimuli (e.g., jumpiness in response to loud sound) (APA, 2013).

Second, the duration of symptoms for each of the two disorders is different. For an acute stress disorder diagnosis, Criterion C notes that symptoms need to be present for at least 3 days but no more than 1 month (APA, 2013). If symptoms are present beyond 1 month, then a diagnosis of PTSD should be considered.

Similar to nearly all DSM-5 disorders, the symptoms are expected to result in significant distress or impairment in social, work, and family relationships (Criterion D). In addition, it is always necessary, pursuant to Criterion E, to rule out other causes that could better explain the presence of symptoms, such as substance use, medical conditions, or psychological disturbances such as brief psychotic disorder (APA, 2013).

While the DSM-5 views acute stress disorder as a precursor to PTSD and therefore is placed alongside PTSD in the same section (trauma and stress related disorders), the World Health Organization (WHO) takes a different view of acute stress. In the WHO's 11th edition of International Classification of Diseases (ICD-11, 2018), acute stress is defined as a possible reaction following traumatic event and hence placed under "problems associated with harmful or traumatic events."

Moreover, the ICD-11 defines acute stress reaction as "normal given the severity of the stressor, and usually begins to subside within a few days after the event."

Prevalence of Acute Stress Disorder

Research examining acute stress symptoms was initiated 3 days after the September 11 terrorist attacks. A national telephone survey conducted with 560 adults revealed that events reminding them of the attacks triggered anger (30%), repeated and disturbing memories, thoughts or dreams associated with the attacks (16%), difficulties concentrating (14%), sleep-related problems (11%), and irritability or angry outbursts (9%) (Schuster et al., 2001). Overall, 44% of respondents reported experiencing at least one or more symptoms of acute stress (Schuster et al., 2001). The study also found that 50% of women, in comparison to 37% of men, reported substantial stress reactions following the terror attacks (Schuster et al., 2001).

Recent studies which measured acute stress disorder's prevalence can be differentiated by the specific type of trauma the respective samples experienced; Kassam-Adams, Fleisher, and Winston (2009) found that 12% of 334 parents to children with traffic-related injuries met criteria for acute stress disorder. McKibben, Bresnick, Wiechman Askay, and Fauerbach (2008) assessed acute stress disorder among 178 burn victims upon their hospital discharge and found prevalence of 23.6%. In Israel, Yahav and Cohen (2007) examined acute stress symptoms during the "Second Lebanon War," a time when Israel's residents were exposed to daily missile attacks. Telephone interviews were conducted with 199 adults living in Jewish and Arab communities. 95.5% of the Jewish Israeli and 100% of the Arab Israeli participants experienced at least one of the four acute stress symptoms: dissociation, re-experiencing trauma, avoidance, and arousal (Yahav & Cohen, 2007). However, only 5.5% of the Jewish participants and 20.3% of the Arab participants met full criteria for acute stress disorder (Yahav & Cohen, 2007).

Existing studies on acute stress disorder are primarily focused on evaluating how symptoms of distress evolve over time from acute stress disorder to PTSD and the likelihood of that happening (Isserlin, Zerach, & Solomon, 2008). A study of 157 violent crime victims (i.e., actual or attempted sexual assault or bag snatching) living in England and Wales found that 19% of the participants met criteria for acute stress disorder (as defined in the DSM-III-R), with a nonsignificant trend of higher frequency among women than men (31% vs. 15%, respectively) (Brewin, Andrews, Rose, & Kirk, 1999). Six months later, when 138 of the study participants were reassessed, the researchers found that more acute stress disorder symptoms predicted greater likelihood of developing PTSD. Nearly all of the acute stress symptoms, individually and together, predicted PTSD well over 50% of the time (Brewin et al., 1999).

Adjustment Disorder

Lorenz, Bachem, and Maercker (2016) defined adjustment disorder as "a transient mental health condition occurring after serious but non-traumatic life stressors" (p. 775). Adjustment disorder Criterion A requires an exposure to a stressor. However, while the stressor has to be identifiable, unlike acute stress disorder and PTSD, it does not have to be a traumatic event (e.g., exposure to actual death, threatened death, or severe injury). An infinite number of stressors meet the requirements of Criterion A such as loss of employment, difficulty adjusting to college, or a move to a new city. In addition, the stressor can be experienced as a one-time (e.g., one-time divorce) or a continuing or recurring event (e.g., seasonal business crises). Moreover, the stressor can affect an individual, a community, or an entire country (APA, 2013). Symptoms are required to start within 3 months from the beginning of the stressor and end within 6 months of the onset. The following symptoms are required for meeting Criterion B: (B1) marked distress that is disproportionate to the severity or intensity of the stressor, while taking into account relevant cultural considerations that may impact symptom severity and presentation. In other words, the individual's reaction to the stressor should exceed "what normally might be expected, when cultural, religious, or age-appropriate norms are taken into account" (APA, 2013, p. 287); (B2) the reaction to the stressor significantly impairs important areas of functioning, whether family, social, occupational, or other (APA, 2013). For example, a person who was in a close relationship and is now going through a difficult breakup spends the next 5 months in solitude, avoids going out with friends, and is not interested in meeting new people.

Similar to PTSD and acute stress disorder, the clinician should make sure that the adjustment disorder symptoms do not meet criteria for another disorder that may take precedence such as major depressive disorder (Criterion C). The clinician should also try to identify whether there is any disorder that preceded the stressor (e.g., dysthymia) and whether current symptoms could be an exacerbation of a pre-existing disorder. Criterion D requires that the clinician avoids confusing the presenting symptoms with normal bereavement. Criterion E sets a relatively brief time limit, up to 6 months, for presentation of symptoms. If symptoms persist for a period longer than 6 months, other diagnoses should be considered. The following specifiers can be used with adjustment disorder: depressed mood, anxiety, mixed anxiety and depressed mood, disturbance of conduct, mixed disturbance of emotions and conduct, and unspecified (APA, 2013).

Prevalence of Adjustment Disorder

Relative to PTSD, there is paucity of research on adjustment disorder. It is likely that because of the relatively short span allowed for the disorder's symptoms, there is less interest in its prevalence. Moreover, in comparison to both PTSD and acute stress disorder, the symptoms of adjustment disorder are nonspecific, vague, and open for interpretation. For instance, after the loss of a family member, one clinician

may consider a highly distressed response as part of normal bereavement, whereas another clinician may view it as marked distress that meets criteria for adjustment disorder. These differing perspectives are less likely when evaluating the presence or absence of symptoms for PTSD or acute stress disorder.

The DSM-5 estimates that between 5% and 20% of individuals receiving outpatient mental health care are diagnosed with adjustment disorder (APA, 2013). Other studies report similar findings. Among clients receiving care in an outpatient mental health setting, approximately 10–30% had an adjustment disorder (Ingersoll & Burns, 2001). According to Rundell (2006), the rate of adjustment disorder among US military psychiatric evacuees (i.e., service members evacuated from a foreign country back to the USA due to psychiatric disorders) who participated in Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) was 37.6%, a rate which exceeded mood disorders (22.1%). However, a later review of that study suggested that the elevated rate of adjustment disorder could be the result of measurement issues because the screening tool classified depressive symptoms as adjustment disorder (Carta, Balestrieri, Murru, & Hardoy, 2009)

Procedures for Gathering Information

A strong working alliance between the mental health professional and the client is necessary when assessing for mental health problems and working toward achieving treatment goals. This is especially true when assessing for trauma-related disorders because the phenotype of PTSD is often confusing and difficult to identify, as it can be masked or exacerbated by other disorders such as traumatic brain injury, depression, substance use, or anxiety disorder (Ellis & Zaretsky, 2018). In addition, people may not realize they have PTSD because they view their symptoms as a sign that they are having difficulty coping (Ellis & Zaretsky, 2018). Trauma-related disorders are influenced by biological factors (i.e., genetics), psychological considerations (i.e., emotional and behavioral responses) and social elements (i.e., breadth and depth of the supportive environment) (Damir & Toader, 2014).

The foundation of a good therapeutic alliance is a collaborative relationship where an affective bond between the clinician and the client develops and facilitates the process of agreeing on and progressing with selected treatment goals (Lilienfeld, Lynn, & Lohr, 2012). To elicit good information, it is worthwhile taking the time to create a sense of safety so that the client feels comfortable sharing private details about their thoughts, feelings, and behaviors. Ways to establish a therapeutic alliance early on are to express compassion, show a real interest in the client's concerns, and engage the client as a collaborator in treatment. Client's collaboration can be obtained through mutually setting goals for treatment, as well as sharing impressions of the treatment and progress. Reviewing with the client the results of their assessments as well as providing psychoeducation has the potential to enhance the therapeutic alliance as it can assuage client's concerns about the source of their distress and their ability to cope and change. It is incumbent to continue gathering relevant information and monitoring progress at each stage of therapy.

An unstructured interview—a form of interview that does not have a fixed format or require the use of a sequenced set of questions—may provide useful information and help to start a therapeutic alliance. However, structured or semi-structured interviews are recommended as the best method for reaching a well-informed diagnosis (Segal & Williams, 2014). Structured and semi-structured clinical interviews can be used to obtain a client's history of symptoms and current problems in functioning. Most structured and semi-structured interviews were developed using psychometric approaches that included evaluations of validity and reliability (Segal & Williams, 2014). Using a structured or semi-structured interview with good validity and reliability minimizes the risk of arriving at dissimilar diagnoses between researchers and mental health professionals.

When appropriate, it is also important to gather information from collateral sources such as family members, spouses, partners, or close friends as they can shed light on the client's behavior and current concerns. However, any interviews with a third party should be done with the client's informed consent. Because of the clinician's primary legal and ethical responsibility to maintain client's confidentiality, it is advisable not merely to obtain a client's verbal consent but also to secure a client-signed release of information (ROI) form. The ROI should detail specific individuals or institutions from whom the clinician can request information or records, the scope of release of information (i.e., what information the clinician can disclose to others), expiration date of the ROI, and the client's right to revoke the ROI at any time. Such stipulation not only protects the clinician from potential legal problems but also protects the client by clearly informing them of their rights.

While interviews are the first step in forming a diagnosis, it is also important to let the client actively participate in the evaluation process. Information from cognitive and mood assessments can inform case conceptualization and guide treatment planning, if the client has given their best effort in responding and is forthcoming when completing measures. Self-report measures, where the client, rather than the clinician, rates their distress levels and endorses the presence and magnitude of various symptoms are the most widely used measurement tools in psychology (Haeffel & Howard, 2010). Indeed, there are a variety of PTSD self-report measures that can be used to identify PTSD symptoms, rate the symptoms' onset and severity, as well as monitor for any change in diagnosis throughout treatment. Some self-report measures can help both the clinician and client monitor whether the treatment is effective.

Recommendations for Formal Assessment

Structured and Semi-structured Interviews

General Interview: The Structured Clinical Interview for DSM

One of the most widely used semi-structured interviews used to determine a diagnosis is the Structured Clinical Interview for the DSM (SCID). The most recent edition is the SCID-5 (First, Williams, Karg, & Spitzer, 2016), which contains 12

modules that mirror the DSM-5's organizational structure. The five different versions of the SCID-5 include research version (RV), clinician version (CV), clinical trial (CT), personality disorders (PD), and alternative model for personality disorders (AMPD). Each version is also accompanied by a user's guide. PTSD, acute stress disorder, adjustment disorder, and other specified trauma and stressor-related disorder are included in Module L of the SCID-5. Psychometric properties of the SCID-5 are not yet available (Vermetten, Germain, & Neylan, 2018). However, in a study by Zanarini et al. (2000), the test-retest and interrater reliability of the SCID-I was tested for the DSM-IV. The study found excellent test-retest reliability for PTSD, alcohol use, and substance use (Test/Retest Kappa = 0.78, 0.77, and 0.76, respectively). Per the SCID-I validity, Rush, First, and Blacker (2008) suggest that more than 85% of patients who showed psychotic symptoms disclosed them during the SCID-I interview. In addition, SCID-IV module for PTSD demonstrated high interrater reliability for lifetime and current diagnoses (Interrater Kappa = 0.94 and 0.87, respectively), as well as strong sensitivity (0.81) and specificity (0.89) when compared with PTSD diagnosis (Vermetten et al., 2018).

The length of time to administer the SCID is dependent on the client's personal history, relevant disorder, as well as other potential comorbid disorders or rule-outs that emerge during an initial interview. Administering the SCID-5 may take between 30 min and 2 h. The SCID uses a combination of mandatory probes with a decision-tree approach. The clinician is expected to use professional judgment and skip irrelevant questions or entire sections of the SCID if criteria has not been met for specific probes. Because the administration of the SCID involves decision-making, it is important that the person administering the SCID be trained to conduct the interview.

General Interview: The Mini-international Neuropsychiatric Interview

The Mini-International Neuropsychiatric Interview (MINI) is a brief structured diagnostic interview for major psychiatric disorders as defined in DSM-III-R, DSM-IV, DSM-5, as well as ICD-10 (Sheehan et al., 1998). The MINI was designed to assess 17 of the most common psychiatric disorders, including PTSD, mania and hypomania, major depressive disorder, panic disorder, agoraphobia, social phobia, substance use disorder, and more (Sheehan et al., 1998). Specifically developed to be brief, administration of the MINI takes approximately15 min, which is significantly shorter than the SCID which at minimum could take 30 min (Sheehan et al., 1998). In addition, the MINI was designed to be used by trained interviewers rather than physicians or mental health professionals (Sheehan et al., 1998). There are more than 15 versions of the MINI, each addressing a different disorder and different population (e.g., adults, children, clinician-rated or patient-version). The most appropriate module for PTSD appears to be the Standard MINI, which assesses all 17 disorders.

Psychometrically, the MINI is a sound instrument and aligned with both the SCID-IV and ICD-10 for all 17 disorders. Specifically, the PTSD module shows

significant sensitivity (>0.70) and very good positive predictive value (>0.75). Research also shows that the MINI has excellent interrater reliability (Interrater Kappa = 0.95) and good test-retest reliability (Test/Retest Kappa = 0.73) (Sheehan et al., 1998). The measure has gained popularity among researchers worldwide and has been translated into multiple languages. This measure is useful for research purposes and as a supplemental measure of a more thorough interview, for diagnostic purposes.

General Interview: The Psychiatric Diagnostic Screening Questionnaire

The Psychiatric Diagnostic Screening Questionnaire (PDSQ) (Zimmerman & Mattia, 1999) is a self-administered questionnaire usually provided in outpatient settings. The PDSQ consists 126 questions which cover 13 of the most common DSM-IV Axis I disorders, among them PTSD as well as disorders likely to be comorbid, such as anxiety, depression, and substance use disorders (alcohol and substance use disorders). The PDSQ also maintains a psychosis screen. Administering the measure takes approximately 15 min (Rush Jr et al., 2008) which is much shorter in comparison to both the SCID-5 and the MINI. In addition, while the results (i.e., scores of the questionnaire) have to be reviewed by a mental health professional, scoring the measure can be done quickly by a nonprofessional (Rush Jr et al., 2008).

The PDSQ shows moderate to high internal consistency reliability ($\alpha = 0.82$) as well as good test-retest reliability ($r = 0.84$). The measure's validity is also strong: Its convergent validity (i.e., measuring correlation between the scale and other scales measuring the same disorder) was 0.64. The PDSQ also showed strong mean subscale sensitivities in three cut points (80%, 85%, and 90%) as well as specificities (78%, 73%, and 66%, respectively) (Rush Jr et al., 2008).

Trauma-Related Specific Interviews

Clinician-Administered PTSD Scale

Originally developed by Blake, Weathers, Nagy, Kaloupek, Klauminzer, Charney, and Keane (1995), the Clinician-Administered PTSD Scale (CAPS) is one of three measures recently updated by the Veterans Affairs (VA) National Center for PTSD to be aligned with DSM-5 criteria. The CAPS is considered the gold standard of PTSD structured interviews. The CAPS-5 is a 30-item questionnaire (while the prior version included 17 items) which also measures, through a single score, each symptoms' severity based on its frequency and intensity. There are currently three versions of CAPS-5: past month, worst month/past month and past week. The clinician is expected to use their professional judgment coupled with background information provided by the client to determine which version is most appropriate.

The CAPS demonstrates strong psychometric properties: It is highly reliable, with strong internal consistency for the individual subscales ($\alpha = 0.76–0.88$). Joint reliability was particularly excellent among rape and motor vehicle victims (Kappa = 0.84) (Rush Jr et al., 2008). The CAPS also showed to correlate well with other PTSD self-report measures, including the Mississippi Scale (MSS) ($r = 0.73$), as well as with the Minnesota Multiphasic Personality Inventory PTSD Scale (MMPI-PTSD) ($r = 0.74$) (Rush Jr et al., 2008).

A clinician interested in administering the interview should consider that it takes 45–60 min to administer, which is much longer than other instruments such as the PTSD Symptom Scale-Interview (PSS-I) which takes only 20 min. In addition, because answering the CAPS-5 interview questions can be intense, mental health professionals are expected to complete a 4.5 h training before administering the measure. Training by the Veterans Affairs National PTSD Center can be found on their website. Often it is useful to supplement the CAPS-5 with a trauma-focused assessment like the Life Events Checklist (LEC-5), which measures the frequency and intensity of the client's exposure to a range of traumatic events (see below for a description of the LEC-5).

PTSD Symptoms Scale Interview

The PTSD Symptoms Scale-Interview (PSS-I) is a semi-structured interview developed by Foa, Riggs, Dancu, and Rothbaum (1993) to obtain a valid and reliable diagnosis of PTSD. The PSSI-5 is an updated version to match the DSM-5 (Foa et al., 2016). Designed as a flexible semi-structured interview, the PSSI requires familiarity with its manual and scoring process, knowledge of PTSD symptomatology, ability to make a differential diagnosis, and sound professional judgment. During the administration of the interview, the clinician must determine which questions can be skipped. The PSSI-5 was developed to assist in diagnosing PTSD as well as provide an estimate of the severity of symptoms using a 5-point scale (from 0 = not at all to 4 = 6 or more times a week/severe). The PSSI has excellent psychometric properties with strong internal consistency ($\alpha = 0.89$), test-retest reliability ($r = 0.87$), high interrater reliability for the total severity score (Intraclass Correlation Coefficient = 0.98), and good interrater agreement for PTSD diagnosis (Interrater Kappa = 0.84) (Foa et al., 2016). A cutoff score of 23 for PTSD was determined by a Receiver Operating Characteristic (ROC).

Trauma-Related Self-Report Measures

Life Events Checklist

Developed by the National Center for PTSD, the Life Event Checklist (LEC) is a 17-item self-report measure that is aligned with DSM-5 criteria (Blake et al., 1995). Unlike the majority of PTSD assessments that assess for most recent or current

events, the LEC-5 assesses for potentially traumatic events across the life span. The person is asked if the event happened to them, was witnessed, was learned about from others, or if they are not sure or the event does not apply. The LEC-5 was originally intended to be used co-jointly with the CAPS. In a study by Gray, Litz, Hsu, and Lombardo (2004), the LEC was validated for use as an independent measurement for trauma events. With respect to the LEC's reliability, the study found that all items except for one achieved a kappa above 0.50, while the test-retest correlation was particularly high ($r = 0.82$). As for validity, the study found strong convergence between the LEC and the Traumatic Life Events Questionnaire (TLEQ) scale, where only two of the nine items did not achieve a kappa of 0.40 (Gray et al., 2004). It is important to note that while the LEC is mostly useful for identifying traumatic events as defined by PTSD or acute stress disorder, it can also be used to assess severity of symptoms for an adjustment disorder.

PTSD Checklist for Diagnostic and Statistical Manual of Mental Disorders

The PTSD Checklist for Diagnostic and Statistical Manual of Mental Disorders (PCL) was originally developed by Weathers, Litz, Herman, Huska, and Keane (1993) and later redesigned by Weathers, Litz, Keane, Palmieri, Marx, and Schnurr (2013) to accommodate the DSM-5. It is a 20-item self-report measure used to help make a provisional diagnosis of PTSD and to assess symptoms severity. Respondents are asked to rate, on a scale from 0 (not at all) to 4 (extremely), how bothered they have been by each of the 20 items that correspond with DSM-5 criteria for PTSD. The two versions of the PCL-5—one for civilian and the other for military—are available in two formats, one which includes Criterion A (trauma) and one without. The PCL-5 was not developed as a stand-alone diagnostic tool. It can be used to supplement other, more structured, clinician-rated assessments and is quick and easy for clients to complete. It is also useful for monitoring symptoms over time as the client can easily provide a self-report every few sessions.

Psychometric studies of the PCL prior to the DSM-5 version found the instrument to be of high reliability and validity (Keen, Kutter, Niles, & Krinsley, 2008). Blevins, Weathers, Davis, Witte, and Domino (2015) examined the psychometric properties of the current version and found excellent internal consistency ($\alpha = 0.94$), strong test-retest reliability ($r = 0.82$), and good convergent and discriminant validities ($rs = 0.74$–0.85 and rs = 0.31–0.60, respectively). In another study, the PCL-5 similarly showed good internal consistency ($\alpha = 0.96$) and test-retest reliability ($r = 0.84$) (Bovin et al., 2016).

The National Stressful Events Survey Acute Stress Disorder Short Scale

The National Stressful Events Survey Acute Stress Disorder Short Scale (NSESSS) is a self-report 7-item measure that assesses the severity of acute stress symptoms among adults (Kilpatrick, Resnick, & Friedman, 2013). All the items on the NSESSS

are aligned with DSM-5 criteria for PTSD (i.e., flashbacks, emotional or psycho-logical distress, detachment, avoidance, hypervigilance, startle response and irrita-bility/anger). The NSESSS is a monitoring rather than a diagnostic assessment tool. It is easy and quick to complete (approximately 5 min) and can be used to monitor progress for clients diagnosed with acute stress disorder. However, mental health professionals should be aware that the instrument addresses symptoms experienced in the past 7 days. Because the NSESSS is a relatively new measure, its psychomet-ric properties are still examined by the American Psychiatric Association. This screener can be reproduced without permission and is available at the American Psychiatric Association's website.

Case Illustrations

Two vignettes are provided below to illustrate the wide spectrum in which symp-toms of trauma-based disorders preside. The first vignette features Erick, a Marine combat veteran, who experiences symptoms of distress following battles he took part in during his military service. The second case vignette is of Lily who also experiences symptoms of emotional and physical distress following a car accident. When reading these vignettes, the reader is encouraged to identify cultural consid-erations such as gender, race, and family status that can affect symptom presenta-tion. While Erick and Lily's symptom presentations are vastly different, they both encounter common challenges when processing their respective traumas.

Erick: Marine Combat Veteran

Erick is a 28-year-old male veteran who lives with his wife, Diana, and their 3-year-old daughter. Erick is currently unemployed. Six months ago, he lost his job as a carpenter for a construction company. He decided to attend therapy because his marriage was falling apart, and his wife was threatening to leave if he did not get help. The first session with his clinician was held with both Eric and Diana. During that session, Diana stated she was willing to stay in the marriage only if Erick agreed to receive ongoing mental health treatment. She described Erick as "unbear-able" and indicated that unless he got help and changed his behavior that she would leave the marriage and take custody of their daughter. Diana stated that Erick went from an outgoing and friendly person to increasingly angry—one who is easily provoked and lashes out over his own and other people's mistakes. He shows little interest in going out with friends or even engaging in fun activities with their daugh-ter. She reported that Erick's irritability and anger cost him his job as he yelled at his supervisor at work over a remark he made about his work.

   After the first session, Erick attended the next three sessions alone. The clinician learns Erick enlisted in the Marines at age 22 and has served in multiple tours of

war. He has had four deployments to Afghanistan and Iraq. He shares with you that during his last month in Iraq, an improvised explosive device detonated next to his jeep, and he witnessed the death of his commander. Erick was also injured and was honorably discharged from the Marines several months later. He has a Veterans Affairs 30% service-connected physical disability.

Eric describes ongoing difficulty with his sleep manifested through waking up multiple times during the night. When pressed, Eric shares a recurring nightmare he has, where his direct commander, all bloody and injured, tries to reach out and grab him. Eric admits to being reluctant to talk about his experiences in Iraq with anyone, stating "It's not going to do me any good…I have to be strong for my family and just move on…that is what a man supposed to do." Erick admits to being more irritable with others and shares with you his regret for lashing out at his 3-year-old several times "over nothing." He also reveals to you that he smokes marijuana twice a week to "calm down my nerves" when his wife is at work and his daughter is at day care.

Lily: Car Accident Survivor

Lily is a 30-year-old single female, who works as a psychiatric nurse at a university teaching hospital. Three months ago, Lily was involved in a serious car accident where she suffered minor injuries. She reported that her life has not been the same since her accident. Lily reports that the night of the accident she went out with two girlfriends, Susan and Marry, to a bar after work. Susan offered to be the designated driver. However, during the course of the evening each of the girls had several drinks. On the way back from the bar, Susan ran a red light and crashed into the car of an elderly couple. While the girls were not seriously injured, the elderly couple died instantly. Since the accident, Lily describes having recurring memories of the accident at different times during the day. These memories include screaming and images of the dead elderly couple as they were moved from their car into the ambulance. Lily also described experiencing heart palpitations and sweaty palms whenever she drives or is a passenger in a car. As a result, Lily avoids traveling in a car and has started using public transportation. This has increased her daily commute time to the hospital from 20 min to over an hour each morning. Lily blames herself for the accident and feels responsible for the death of the elderly couple stating, "I should not have let Susan drive… if I was at the wheel this accident would not have happened." Feeling angry, guilty, and ashamed, Lily cut contact with Susan and Marry. She refuses to go out to meet her friends or go out on dates. Since the accident, Lily describes difficulties falling asleep and intrusive memories of the crash. After she mistakenly administered the wrong medication to a patient in the hospital, Lily realized that she should seek help.

Comment on Cases

While both Erick and Lily might meet criteria for the same disorder (PTSD), the symptoms they experience are significantly different, if not opposite. Erick copes with his distress through external behaviors such as irritability toward others and substance use. Lily, on the other hand, does the opposite—she experiences shame and self-blame as well as physical sensations (i.e., heart palpitation). While the presentations of their symptoms are vastly different, both of these presentations embody a dysfunctional way of processing the trauma which impacts their respective important areas of life: For Erick, it is his relationship with his family and quality of life (e.g., sleep), while for Lily it is her relationship with her friends as well as quality of life (e.g., spending 2 h on the bus daily while she could have spent 40 min).

Impact of Culture, Sex, Race, Age, and Other Aspects of Diversity

Culture informs the psychological process. It is an imperative factor that should be considered by the clinician from the diagnostic phase and throughout treatment. The perception of culture usually refers to race or gender. However, culture can be defined around common themes such as age, religion, social standing, education, financial resources, or veterans' status. Culture is complex and multi-faceted. For example, an individual may define herself as Hispanic, female, veteran, and Catholic. She belongs to multiple cultural groups, rather than just one. Multiple cultural identities may play a significant role in an individual's comprehension, understanding, and presentation of their mental health symptoms as well as influence the treatment process and outcomes. Mental health professionals are responsible for being knowledgeable and sensitive to cultural considerations and their potential impact on assessment, case conceptualization, and treatment. Cultural competency is especially relevant when providing treatment for trauma-related disorders: While the self-cognition (e.g., "who I am") of individuals from independent cultures (e.g., the USA or Europe) who experienced trauma is significantly defined by the trauma, it is much less so for individuals who experienced trauma from interdependent cultures (e.g., South America or Southeast Asia) (Jobson & O'Kearney, 2008). These findings are both theoretically and clinically important. Theoretically, the findings highlight how the perception of trauma is influenced by social norms. Clinically, the findings buttress the existing recommendation that mental health professionals strive to be culturally competent (i.e., knowledge, skills, and attitude).

Gender and Age

Ample research suggests a positive correlation between gender, age, and post-traumatic symptoms. In fact, a meta-analysis of 77 studies revealed that both the risk of *experiencing* traumatic events and *endorsing* PTSD symptomatology were significantly associated with being female, younger, and lower social class status (Brewin, Andrews, & Valentine, 2000). A later study by Ditlevsen and Elklit (2010) supported these findings in a sample of 6548 Nordic people using the Harvard Trauma Questionnaire-Part IV (HTQ-IV). The study found that 27.5% of female and 13.8% of men endorsed PTSD symptoms (Ditlevsen & Elklit, 2010). In other words, the findings from this study suggest that women were twice as likely as men to endorse PTSD symptoms after a traumatic event. In addition, women of all ages had higher HTQ scores than men.

Research also indicates that PTSD has different developmental trajectories for men and women (Ditlevsen & Elklit, 2010; Reynolds, Pietrzak, El-Gabalawy, Mackenzie, & Sareen, 2015). Overall, multiple studies suggest that PTSD prevalence is lower among both men and women in late life (Brewin et al., 2000; Ditlevsen & Elklit, 2010; Reynolds et al., 2015). However, men showed a decline in HTQ scores in their 40s and a lowest potential for PTSD risk in their 60s to mid-80s (Ditlevsen & Elklit, 2010). In the late 1980s to 1990s, higher rates of PTSD were evident for men (Reynolds et al., 2015). Among women, a decrease in PTSD symptoms occurred a decade later than men (Ditlevsen & Elklit, 2010) and continued to decline steadily into late life (Reynolds et al., 2015).

Racial and Ethnic Minorities

In general, studies indicate that racial and ethnic minorities experience more mental health diagnostic inaccuracies as well as disparities in treatment when compared to their White counterparts (Fortuna, Porche, & Alegría, 2009; Samnaliev, McGovern, & Clark, 2009). Do these findings also apply to PTSD diagnosis and treatment among US minorities? The answer seems to be at least partially positive. Data from a structured diagnostic interview administered to 34,653 adults revealed that minorities reported lower exposure to traumatic events in comparison to Whites (Roberts, Gilman, Breslau, Breslau, & Koenen, 2011). However, the lifetime prevalence of PTSD was found to be highest among African Americans (8.7%) in comparison to Whites and Hispanics (7.4% and 7.0%, respectively) and lowest among Asians (4.0%) (Roberts et al., 2011). The relatively high prevalence of lifetime PTSD among Blacks may be explained by factors such as discrimination, racial stigmatization and racial-based abuse, as well as lower socioeconomic conditions (Roberts et al., 2011). While Blacks are at greater risk for developing PTSD than Whites or other minorities, they are less likely to seek and receive mental health treatment for their trauma. Only 35.3% of Blacks with PTSD symptoms sought any type of

treatment (e.g., physician or psychologist) versus 53.3% of Whites with similar symptomology (Roberts et al., 2011). Also, only 42% of Hispanics and 32.7% of Asians sought any form of treatment for the disorder. The comparatively low percentage of minorities using mental health treatment for their PTSD symptoms can be explained by a number of factors such as negative mental health stigma, cultural beliefs, poor quality or limited availability of resources, and racism or bias in treatment settings (Conner et al., 2010).

A recent study also found a significant negative association between stigma and mental health treatment among American Middle Eastern (i.e., Arab or Israeli) (Clement et al., 2015). Additional explanations, other than stigma, for lower percentage of treatment seeking and use among minorities can be attributed to socio-economic issues (e.g., health insurance plan with coverage for adequate mental health treatment) and knowledge (e.g., education about the options available).

Sexual Minority Adults

Lesbian, gay, bisexual, transgender, queer (LGBTQ) people living in the USA are more likely to encounter sexual abuse, crime, verbal harassment, and various types of discriminations in comparison to their heterosexual counterparts (Herek, 2009; Rothman, Exner, & Baughman, 2011). The higher likelihood of victimization explains why sexual minorities also have higher risk for PTSD (Roberts, Austin, Corliss, Vandermorris, & Koenen, 2010). In a large study of 34,653 noninstitutionalized adults living in the USA, Roberts, Austin, Corliss, Vandermorris, and Koenen (2010) found that the PTSD prevalence among (self-defined) gay and bisexual men who were exposed to a potentially traumatic event was 13.38% and 9%, respectively, in comparison to 5.03% among heterosexual men with no same-sex attractions or partners. The study also found that PTSD prevalence among lesbian and bisexual women was 18.04% and 25.68%, respectively, in contrast to 12.50% among heterosexual women without same-sex attractions (Roberts et al., 2010). These differences in rates for gay, lesbian, bisexual, and heterosexual people are consistent with findings reported by earlier studies (Gilman et al., 2001; Herek, Gillis, & Cogan, 1999).

Mental health professionals should be aware that new patients may be reluctant to disclose their sexual orientation for a variety of reasons. A recent study found that only a third (33%) of gay, lesbian, and bisexual veterans who used Veterans Health Care Administration (VHA) services were willing to disclose personal information about their sexual orientation (Simpson, Balsam, Cochran, Lehavot, & Gold, 2013). A significant number of the sample reported avoiding using at least one (25%) or two or more (15.4%) VHA services despite their need for treatment due to fear of stigmatization (Simpson et al., 2013).

The Armed Forces

Post-traumatic stress disorder and other trauma-related disorders have been extensively studied among military service members and veterans returning from war. Violent combat exposure has been associated with serious mental illnesses such as post-traumatic stress, depression, substance use, and risk for death by suicide (Boscarino, 2008; Prigerson, Maciejewski, & Rosenheck, 2002). Recent US military Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) research examining the prevalence of PTSD among service members and veterans post deployment found a strong positive correlation between participation in battle and PTSD (Ramchand et al., 2010).

A meta-analysis of 22 studies examining PTSD and other trauma-related disorders among service members returning from OEF and OIF found significant variability in rates for PTSD (Ramchand et al., 2010) ranging from a high of 60% among Army National Guard soldiers serving in Iraq (Stecker, Fortney, Hamilton, & Ajzen, 2007) to a low of 1.6% among Marines serving in Iraq and Afghanistan (Larson, Highfill-McRoy, & Booth-Kewley, 2008). While the prevalence of PTSD varied among the studies, there were additional studies where service members completed Department of Defense (DoD) Post Deployment Health Assessment questionnaires within 2 weeks of returning home from service in Iraq. These studies estimated that PTSD rates were approximately 10% (Hoge, Auchterlonie, & Milliken, 2006; Milliken, Auchterlonie, & Hoge, 2007). However, Ramchand, Karney, Osilla, Burns, and Caldarone (2008) also reported that reassessment of same participants 6 months after their return from Iraq showed higher PTSD rates. Possible explanations for this increase could be underreporting of symptoms or gradual development of symptoms when reintegrating into society (Ramchand et al., 2008).

Studies have also found a positive correlation between trauma and health-related problems. Specifically, chronic PTSD was associated with heart disease, as well as with increased risk of developing inflammatory and autoimmune diseases (Boscarino, 2006; Boscarino, 2008). To summarize, while PTSD and trauma-related disorders are extensively studied among the service members and veterans, there is still a lot more to learn. Although different studies often produce different or conflicting results, sometimes due to the use of different measures, the sample studied, or the duration of the study (e.g., single or multiple time points), it is evident that service members and veterans are at higher risk for PTSD than the civilian population.

Integrating Cultural Considerations into Case Conceptualization

Cultural awareness should be a standard part of clinical practice. Learning about your client's race/ethnicity, primary language, sexual orientation, religious beliefs, and military service are all necessary for case conceptualization and treatment

planning. Familiarity with recent research concerning the client's culture and potential idioms of distress is also recommended. The client's sex and gender can influence reporting of symptoms. For example, a study found that men who worked in high-stress jobs, such as firefighters, tend to underreport symptoms of trauma (Skeffington, Rees, Mazzucchelli, & Kane, 2016). Similarly, women refugees from Southeast Asian descent were likely to underreport symptoms of trauma resulting from rape because of stigma and shame (Yang et al., 1989). The DSM-IV (APA, 1994) was the first to introduce the Outline for Cultural Formulation (OCF) in 1994 with the purpose of helping clinicians organize and integrate cultural considerations of their clients into case formulation (Lewis-Fernández et al., 2014). The OCF was revised into a semi-structured interview format and included in the DSM-5 Cultural Formulation of Diagnosis (APA, 2013). The purpose of the CFD is to operationalize the process of cultural considerations as part of the case formulation (Lewis-Fernández et al., 2014). More psychometrically sound assessment tools are needed to detect cultural considerations that should be integrated into diagnosis and treatment.

Information Critical to Making a Diagnosis

Comorbid Disorders

When evaluating a client for a PTSD diagnosis, it is often the case that symptoms stemming from other disorders are also endorsed (Kessler et al., 1995). Disorders that occur conjointly with PTSD are known as comorbid disorders. Comorbid disorders may start prior to onset of PTSD symptoms, appear concurrently, or after PTSD symptoms are evident. Multiple studies have identified several disorders that are likely to appear comorbidly with PTSD, either as a primary or secondary disorder (Courtois & Gold, 2009; Perkonigg et al., 2000). A landmark study by Breslau, Davis, Andreski, and Peterson (1991) identified the rates of PTSD-comorbid disorders as agoraphobia (21.5%), drug abuse or dependence (21.5%), alcohol abuse or dependence (31.2%), major depression (36.6%), and any substance abuse or dependence (43.0%). Notably, being diagnosed with PTSD significantly increases the likelihood (82.8%) of being diagnosed with a second disorder (Breslau et al., 1991). Other studies have reported similar findings (Kessler et al., 1995; Perkonigg et al., 2000).

Research also suggests that there is a significant positive correlation between PTSD and suicide. Sareen, Cox, Stein, Afifi, Fleet, and Asmundson (2007) found that 20% of the study participants who were diagnosed with PTSD also endorsed suicidal ideation, and 6.5% reported that they had attempted suicide during the past year.

Disorders Masking PTSD Symptoms

A disorder that shares similar symptomatology with PTSD (e.g., substance abuse, depression) could mask the presence of PTSD (Ellis & Zaretsky, 2018). Symptoms that are masked can result in an incorrect or partial diagnosis of PTSD and lead to the use of a wrong pharmacological or psychological treatment. When making a differential diagnosis, Wilson and Keane (2004) recommend considering (1) premorbidity (i.e., review the client's psychiatric history to determine presence of a preexisting disorder; (2) possible history of substance use prior to or after the traumatic event; (3) specific changes in personality and behavior prior to or after the traumatic event; (4) type of interaction between premorbid disorder, traumatic event, and PTSD—to better understand how the premorbid condition could influence presentation of PTSD symptoms; and (5) need for multiple diagnoses, when warranted, if necessary as PTSD can coexist with other disorders.

Emerging Issues: Complex PTSD, Complicated Grief, and Moral Injury

Complex PTSD is defined as "exposure to an event or series of events of an extremely threatening or horrific nature, most commonly prolonged or repetitive events from which escape is difficult or impossible (e.g., torture, slavery, genocide campaigns, prolonged domestic violence, repeated childhood sexual or physical abuse)" (ICD-11, 2018). While the term is not formally acknowledged as a disorder in the DSM-5, it is officially included in ICD-11 as a disorder. Because of the trauma's unique characteristics, there is also a growing body of research evaluating psychotherapies for effectiveness in treating Complex PTSD (Cloitre et al., 2011; Courtois & Gold, 2009).

Complicated grief is an extreme and continuous form of bereavement marked by severe distress in daily functioning. Complicated grief is associated with stress-related disorders because of mutual symptoms such as avoidance of thoughts about deceased, survivor guilt, social detachment, hallucinations, and somatization (Horowitz et al., 2003; Prigerson et al., 1995). These symptoms, in addition to preoccupation through thoughts and behavior related to the deceased's passing, predict long-term dysfunctionality (Prigerson et al., 1995). According to van Denderen, de Keijser, Stewart, and Boelen (2018), 10–15% of bereaved individuals experience chronic grief symptoms in the first year after a significant loss. Horowitz et al., (2003) described symptoms of complicated grief as (1) intrusive symptoms such as (a) unbidden memories or intrusive fantasies related to the lost relationship, (b) strong spells or pangs of severe emotion related to the lost relationship, (c) distressingly strong yearnings or wishes that the deceased were there and (2) signs of avoidance and failure to adapt that include (a) feelings of being far too much alone or

personally empty, (b) excessively staying away from people, places, or activities that remind the subject of the deceased, (c) unusual levels of sleep interference, and (d) loss of interest in work, social, caretaking, or recreational activities to a maladaptive degree (Horowitz et al., 2003). Despite the fact that it is not included in the DSM as a disorder, multiple studies have been conducted examining the characteristics of complicated grief as well as potential treatments.

Moral injury is a fairly new concept that was developed to describe psychological distress that is experienced by an individual and results from an event where one's actions are not aligned with their morals. Shay (2014) defined moral injury as: (a) "A betrayal of what's right; (b) By someone who holds legitimate authority (e.g., commander in the military) (c) In a high stakes situation" (p. 183). Moral injury is not yet included in the DSM possibly because its specific symptoms (i.e., the individual experiences distress, severity of distress) need to be clarified. Moreover, some have questioned whether there is a substantial difference between moral injury that is not captured by PTSD symptom criteria, other stress-related disorders, or even depression. However, it is possible that treatments that may work for PTSD (e.g., exposure therapy) or depression (e.g., psychodynamic therapy), may not be effective with moral injury (Litz et al., 2009). While PTSD without additional issues such as impulsivity or substance use does not significantly increase risk for harm to self (i.e., suicide) or harm to others (i.e., homicidally), moral injury has been shown to increase risk for suicidal thoughts and behaviors (Shay, 2014).

Malingering

The definition of malingering in the context of trauma-related disorders refers to "the intentional exaggeration or production of feigned physical/psychological symptoms of PTSD in order to obtain some external reward (i.e., avoiding criminal responsibility, compensation, attention" (Peace & Masliuk, 2011). Studies suggest that malingering or exaggeration of PTSD symptoms by veterans is more likely when disability compensation is involved (Freeman, Powell, & Kimbrell, 2008; Richardson, Frueh, & Acierno, 2010). The possibility of malingering reinforces the importance of administering a structured interview, along with other relevant evidence-based assessments that measure exaggeration and can serve to corroborate the presence of symptoms, such as the Minnesota Multiphasic Personality Inventory (MMPI-2). Some consider malingering a maladaptive call for help. People who are feigning or exaggerating symptoms are likely feeling psychologically, financially, and/or socially distressed and would benefit from treatment to help manage their concerns and promote adaptive coping.

Dos and Don'ts

- *Do* develop a therapeutic alliance, that is, a relationship built on trust that is used for the benefit of the client. The clinician's efforts to build that relationship should take place during the first session and continue throughout treatment. While building rapport is a long-term process, its benefits can be immediate and demonstrated by the client being able to honestly and openly disclose information, collaborate and give best effort in completing assessments, and engage in treatment.
- *Do* set aside an appropriate amount of time for giving an unstructured and (semi) structured interview before administering assessments, making a diagnosis, and proceeding with treatment. During the interview, conduct an informal mini mental status exam by being attuned to verbal descriptions, nonverbal body, and facial expressions (e.g., sadness, anger), motor activity (e.g., slow or fast motions), and affect (i.e., is it congruent with the client's stated mood?).
- *Do* explain to the client the process of diagnosis, assessment, and treatment before you begin therapy. Providing informed consent at the start of therapy can help alleviate client's fears by addressing concerns, as well as setting expectations. It is also important to "check-in" with the client throughout the intake and diagnosis process to see if they have questions or clarification.
- *Do* explore cultural considerations by reading relevant research and by consulting with experienced clinicians. Be aware of culturally prescribed "idioms of distress" (e.g., somatization and under- or overreporting of symptoms), as well as your own cultural bias and how it could impact the therapeutic process.
- *Do* use structured interviews, standardized assessments, self-report measurements, and evidence-based treatments throughout therapy. Scientifically supported assessments and therapies have shown high rates of success (Norcross & Wampold, 2011). A description of evidence-based therapies for DSM-5 disorders can be found on the American Psychological Association's Division 12 (Society of Clinical Psychology) website.
- *Do* inquire about past and present substance use as research shows very high comorbidity between PTSD and substance abuse. When inquiring about substance use, it is useful to learn about the type, frequency, amount, and duration of substance(s) used.
- *Do* always inquire about past and present suicidal or homicidal ideation as research shows a significant positive correlation between PTSD symptoms and suicide (Boscarino, 2008; Prigerson et al., 2002; Sareen et al., 2007). Should the client endorse suicidal ideation, proceed by exploring whether such ideation is passive (e.g., wishing to disappear) or active (e.g., "I want to kill myself"). If active ideation is present, ask if there is a specific plan in place (e.g., use of a gun, medication overdose), and the seriousness and lethality of the intention (e.g., highly unlikely to highly likely). As appropriate, collaboratively develop a plan for the client to remain safe (i.e., suicide safety plan). Consult with an experienced colleague regarding your assessment of risk and the adequacy of the safety plan. If needed, discuss hospitalization.

- *Don't* rush the client into revealing the details of their trauma during the initial stages of therapy. While a diagnosis of PTSD or ASD requires that specific factors pertaining to a traumatic event are established for meeting Criterion A, consider discussing the traumatic event but be attuned to the dynamics in the room. Does the client independently and voluntarily share any of the details about their traumatic event? If not, it may be preferable to obtain necessary details once treatment commences, when the therapeutic alliance is better established.
- *Don't* avoid making a comorbid diagnosis when warranted. Because of the high prevalence of PTSD with mood disorders, it is important to ascertain if the client has symptoms of a mood disorder. If yes, it is important to identify the severity of the symptoms using appropriately normed, evidence-based assessments. The diagnosis would inform case conceptualization and could influence the type of psychotherapy selected.
- *Don't* follow pseudoscience or use non-substantiated techniques when treating PTSD. Use a well-established evidence-based treatment such as Prolonged Exposure Therapy (PET), Cognitive Processing Therapy (CPT), or Eye Movement Desensitization and Reprocessing (EMDR). Read about each modality and use the one that is best for your client.

Summary

Moving trauma and stress-related disorders into a chapter of their own in the DSM-5 was a significant step indicating that the etiology of these disorders was stress, rather than mood. The pain and suffering resulting from PTSD reflect a way of processing the trauma, albeit in a dysfunctional way. Trauma and stress-related disorders are complex, multi-faceted, and often more challenging to diagnose than depression or anxiety. Different people can endorse completely different symptoms (e.g., hyperarousal vs. avoidance, anger vs. shame), and different comorbid disorders (e.g., depression vs. substance use), and still meet DSM-5 criteria for a PTSD diagnosis. In the past two decades, we have witnessed a growing body of research on scientifically supported psychotherapies for PTSD such as EMDR, PET, and CPT. These psychotherapies are now considered first-line treatments for PTSD. The diagnosis and treatment of such disorders require well-trained and skilled mental health clinicians who possess working knowledge about trauma disorders and use evidence-based practices.

References

American Psychiatric Association [APA]. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
American Psychiatric Association [APA]. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed. Text Revision ed.). Washington, DC: Author.

American Psychiatric Association [APA]. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.

Bandelow, B., Koch, M., Zimmermann, P., Biesold, K. H., Wedekind, D., & Falkai, P. (2012). Posttraumatic stress disorder (PTSD) in the German Armed Forces: A retrospective study in inpatients of a German army hospital. *European Archives of Psychiatry and Clinical Neuroscience, 262*(6), 459–467.

Birur, B., Moore, N. C., & Davis, L. L. (2017). An evidence-based review of early intervention and prevention of posttraumatic stress disorder. *Community Mental Health Journal, 53*(2), 183–201.

Blake, D. D., Weathers, F. W., Nagy, L. M., Kaloupek, D. G., Gusman, F. D., Charney, D. S., & Keane, T. M. (1995). The development of a clinician-administered PTSD scale. *Journal of Traumatic Stress, 8*(1), 75–90.

Blevins, C. A., Weathers, F. W., Davis, M. T., Witte, T. K., & Domino, J. L. (2015). The posttraumatic stress disorder checklist for DSM-5 (PCL-5): Development and initial psychometric evaluation. *Journal of Traumatic Stress, 28*(6), 489–498.

Boscarino, J. A. (2006). Posttraumatic stress disorder and mortality among US Army veterans 30 years after military service. *Annals of Epidemiology, 16*(4), 248–256.

Boscarino, J. A. (2008). A prospective study of PTSD and early-age heart disease mortality among Vietnam veterans: Implications for surveillance and prevention. *Psychosomatic Medicine, 70*(6), 668.

Bovin, M. J., Marx, B. P., Weathers, F. W., Gallagher, M. W., Rodriguez, P., Schnurr, P. P., & Keane, T. M. (2016). Psychometric properties of the PTSD checklist for diagnostic and statistical manual of mental disorders–fifth edition (PCL-5) in veterans. *Psychological Assessment, 28*(11), 1379.

Breslau, N., Davis, G. C., Andreski, P., & Peterson, E. (1991). Traumatic events and posttraumatic stress disorder in an urban population of young adults. *Archives of General Psychiatry, 48*(3), 216–222.

Brewin, C. R., Andrews, B., Rose, S., & Kirk, M. (1999). Acute stress disorder and posttraumatic stress disorder in victims of violent crime. *American Journal of Psychiatry, 156*(3), 360–366.

Brewin, C. R., Andrews, B., & Valentine, J. D. (2000). Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology, 68*(5), 748.

Bryant, R. A. (2003). Early predictors of posttraumatic stress disorder. *Biological Psychiatry, 53*(9), 789–795.

Bryant, R. A., Moulds, M. L., Guthrie, R. M., & Nixon, R. D. (2005). The additive benefit of hypnosis and cognitive-behavioral therapy in treating acute stress disorder. *Journal of Consulting and Clinical Psychology, 73*(2), 334.

Butler, D. J., Moffic, H. S., & Turkal, N. W. (1999). Post-traumatic stress reactions following motor vehicle accidents. *American Family Physician, 60*(2), 524–531.

Carta, M. G., Balestrieri, M., Murru, A., & Hardoy, M. C. (2009). Adjustment disorder: Epidemiology, diagnosis and treatment. *Clinical Practice and Epidemiology in Mental Health, 5*(1), 15.

Carter, R. T. (2007). Racism and psychological and emotional injury: Recognizing and assessing race-based traumatic stress. *The Counseling Psychologist, 35*(1), 13–105.

Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., … Thornicroft, G. (2015). What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological Medicine, 45*(1), 11–27.

Cloitre, M., Courtois, C. A., Charuvastra, A., Carapezza, R., Stolbach, B. C., & Green, B. L. (2011). Treatment of complex PTSD: Results of the ISTSS expert clinician survey on best practices. *Journal of Traumatic Stress, 24*(6), 615–627.

Conner, K. O., Copeland, V. C., Grote, N. K., Koeske, G., Rosen, D., Reynolds, C. F., III, & Brown, C. (2010). Mental health treatment seeking among older adults with depression: The impact of stigma and race. *The American Journal of Geriatric Psychiatry, 18*(6), 531–543.

Courtois, C. A. (2008). Complex trauma, complex reactions: Assessment and treatment. *Psychotherapy: Theory, Research, Practice, Training, 41*(4), 412–425.

Courtois, C. A., & Gold, S. N. (2009). The need for inclusion of psychological trauma in the professional curriculum: A call to action. *Psychological Trauma: Theory, Research, Practice, and Policy, 1*(1), 3.

Cukor, J., Wyka, K., Jayasinghe, N., & Difede, J. (2010). The nature and course of subthreshold PTSD. *Journal of Anxiety Disorders, 24*(8), 918–923.

Damir, D., & Toader, E. (2014). Posttraumatic stress syndrome–ethical and biopsychosocial implications. *Procedia-Social and Behavioral Sciences, 149*, 276–279.

De Kloet, E. R., Joëls, M., & Holsboer, F. (2005). Stress and the brain: From adaptation to disease. *Nature Reviews Neuroscience, 6*(6), 463.

Difede, J., Olden, M., & Cukor, J. (2014). Evidence-based treatment of post-traumatic stress disorder. *Annual Review of Medicine, 65*, 319–332.

Ditlevsen, D. N., & Elklit, A. (2010). The combined effect of gender and age on posttraumatic stress disorder: Do men and women show differences in the lifespan distribution of the disorder? *Annals of General Psychiatry, 9*(1), 32.

Ellis, J., & Zaretsky, A. (2018). Assessment and management of posttraumatic stress disorder. *Behavioral Neurology and Psychiatry, 24*(3), 873–892.

Favaro, A., Degortes, D., Colombo, G., & Santonastaso, P. (2000). The effects of trauma among kidnap victims in Sardinia, Italy. *Psychological Medicine, 30*(4), 975–980.

First, M. B., Williams, J. B., Karg, R. S., & Spitzer, R. L. (2016). *SCID-5-CV: Structured clinical interview for DSM-5 disorders: Clinician version*. Arlington, VA: American Psychiatric Association Publishing.

Foa, E. B., McLean, C. P., Zang, Y., Zhong, J., Rauch, S., Porter, K., … Kauffman, B. Y. (2016). Psychometric properties of the posttraumatic stress disorder symptom scale interview for DSM–5 (PSSI–5). *Psychological Assessment, 28*(10), 1159–1165.

Foa, E. B., Riggs, D. S., Dancu, C. V., & Rothbaum, B. O. (1993). Reliability and validity of a brief instrument for assessing posttraumatic stress disorder. *Journal of Traumatic Stress, 6*(4), 459–473.

Fortuna, L. R., Porche, M. V., & Alegría, M. (2009). A qualitative study of clinicians' use of the cultural formulation model in assessing posttraumatic stress disorder. *Transcultural Psychiatry, 46*(3), 429–450.

Freeman, T., Powell, M., & Kimbrell, T. (2008). Measuring symptom exaggeration in veterans with chronic posttraumatic stress disorder. *Psychiatry Research, 158*(3), 374–380.

Friedman, M. J. (2013). Finalizing PTSD in DSM-5: Getting here from there and where to go next. *Journal of Traumatic Stress, 26*(5), 548–556.

Gilman, S. E., Cochran, S. D., Mays, V. M., Hughes, M., Ostrow, D., & Kessler, R. C. (2001). Risk of psychiatric disorders among individuals reporting same-sex sexual partners in the National Comorbidity Survey. *American Journal of Public Health, 91*(6), 933.

Gray, M. J., Litz, B. T., Hsu, J. L., & Lombardo, T. W. (2004). Psychometric properties of the life events checklist. *Assessment, 11*, 330–341.

Haeffel, G. J., & Howard, G. S. (2010). Self-report: Psychology's four-letter word. *American Journal of Psychology, 123*(2), 181–188.

Herek, G. M. (2009). Hate crimes and stigma-related experiences among sexual minority adults in the United States: Prevalence estimates from a national probability sample. *Journal of Interpersonal Violence, 24*(1), 54–74.

Herek, G. M., Gillis, J. R., & Cogan, J. C. (1999). Psychological sequelae of hate-crime victimization among lesbian, gay, and bisexual adults. *Journal of Consulting and Clinical Psychology, 67*(6), 945.

Hoge, C. W., Auchterlonie, J. L., & Milliken, C. S. (2006). Mental health problems, use of mental health services, and attrition from military service after returning from deployment to Iraq or Afghanistan. *Journal of the American Medical Association, 295*(9), 1023–1032.

Hoge, C. W., Riviere, L. A., Wilk, J. E., Herrell, R. K., & Weathers, F. W. (2014). The prevalence of post-traumatic stress disorder (PTSD) in US combat soldiers: A head-to-head comparison of

DSM-5 versus DSM-IV-TR symptom criteria with the PTSD checklist. *The Lancet Psychiatry, 1*(4), 269–277.

Horowitz, M. J., Siegel, B., Holen, A., Bonanno, G. A., Milbrath, C., & Stinson, C. H. (2003). Diagnostic criteria for complicated grief disorder. *Focus, 1*(3), 290–298.

Ingersoll, R. E., & Burns, L. (2001). Prevalence of adult disorders. In E. R. Welfel & R. E. Ingersoll (Eds.), *The mental health desk reference: A practice-based guide to diagnosis, treatment, and professional ethics*. New York: NY. Wiley.

Isserlin, L., Zerach, G., & Solomon, Z. (2008). Acute stress responses: A review and synthesis of ASD, ASR, and CSR. *American Journal of Orthopsychiatry, 78*(4), 423–429.

Jobson, L., & O'Kearney, R. (2008). Cultural differences in personal identity in posttraumatic stress disorder. *British Journal of Clinical Psychology, 47*(1), 95–109.

Kassam-Adams, N., Fleisher, C. L., & Winston, F. K. (2009). Acute stress disorder and post-traumatic stress disorder in parents of injured children. *Journal of Traumatic Stress, 22*(4), 294–302.

Keen, S. M., Kutter, C. J., Niles, B. L., & Krinsley, K. E. (2008). Psychometric properties of PTSD Checklist in sample of male veterans. *Journal of Rehabilitation Research & Development, 45*(3), 465–474.

Kessler, R. C., Chiu, W. T., Demler, O., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*(6), 617–627.

Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorder in the National Comorbidity Survey. *Archives of General Psychiatry, 52*(12), 1048–1060.

Kilpatrick, D. G., Resnick, H. S., & Friedman, M. J. (2013). *National stressful events survey ASD short scale (NSESSS-ASD)*. Arlington, VA: American Psychiatric Association.

Kimble, M., Boxwala, M., Bean, W., Maletsky, K., Halper, J., Spollen, K., & Fleming, K. (2014). The impact of hypervigilance: Evidence for a forward feedback loop. *Journal of Anxiety Disorders, 28*(2), 241–245.

Lasiuk, G. C., & Hegadoren, K. M. (2006). Posttraumatic stress disorder part I: Historical development of the concept. *Perspectives in Psychiatric Care, 42*(1), 13–20.

Larson, G. E., Highfill-McRoy, R. M., & Booth-Kewley, S. (2008). Psychiatric diagnoses in historic and contemporary military cohorts: Combat deployment and the healthy warrior effect. *American Journal of Epidemiology, 167*(11), 1269–1276.

Lewis-Fernández, R., Aggarwal, N. K., Bäärnhielm, S., Rohlof, H., Kirmayer, L. J., Weiss, M. G., … Groen, S. (2014). Culture and psychiatric evaluation: Operationalizing cultural formulation for DSM-5. *Psychiatry, 77*(2), 130.

Lilienfeld, S. O., Lynn, S. J., & Lohr, J. M. (Eds.). (2012). *Science and pseudoscience in clinical psychology*. New York, NY: Guilford Press.

Litz, B. T., Stein, N., Delaney, E., Lebowitz, L., Nash, W. P., Silva, C., & Maguen, S. (2009). Moral injury and moral repair in war veterans: A preliminary model and intervention strategy. *Clinical Psychology Review, 29*(8), 695–706.

Lorenz, L., Bachem, R. C., & Maercker, A. (2016). The adjustment disorder–new module 20 as a screening instrument: Cluster analysis and cut-off values. *The International Journal of Occupational and Environmental Medicine, 7*(4 October), 775–215.

McKibben, J. B., Bresnick, M. G., Wiechman Askay, S. A., & Fauerbach, J. A. (2008). Acute stress disorder and posttraumatic stress disorder: A prospective study of prevalence, course, and predictors in a sample with major burn injuries. *Journal of Burn Care & Research, 29*(1), 22–35.

Milliken, C. S., Auchterlonie, J. L., & Hoge, C. W. (2007). Longitudinal assessment of mental health problems among active and reserve component soldiers returning from the Iraq war. *Journal of the American Medical Association, 298*(18), 2141–2148.

Nijenhuis, E. R., & Van der Hart, O. (2011). Dissociation in trauma: A new definition and comparison with previous formulations. *Journal of Trauma & Dissociation, 12*(4), 416–445.

Norcross, J. C., & Wampold, B. E. (2011). Evidence-based therapy relationships: Research conclusions and clinical practices. *Psychotherapy, 48*(1), 98.

Peace, K. A., & Masliuk, K. A. (2011). Do motivations for malingering matter? Symptoms of malingered PTSD as a function of motivation and trauma type. *Psychological Injury and Law, 4*(1), 44–55.

Perkonigg, A., Kessler, R. C., Storz, S., & Wittchen, H. U. (2000). Traumatic events and post-traumatic stress disorder in the community: Prevalence, risk factors and comorbidity. *Acta Psychiatrica Scandinavica, 101*(1), 46–59.

Prigerson, H. G., Maciejewski, P. K., Reynolds, C. F., III, Bierhals, A. J., Newsom, J. T., Fasiczka, A., … Miller, M. (1995). Inventory of complicated grief: A scale to measure maladaptive symptoms of loss. *Psychiatry Research, 59*(1–2), 65–79.

Prigerson, H. G., Maciejewski, P. K., & Rosenheck, R. A. (2002). Population attributable fractions of psychiatric disorders and behavioral outcomes associated with combat exposure among US men. *American Journal of Public Health, 92*(1), 59–63.

Ramchand, R., Karney, B. R., Osilla, K. C., Burns, R. M., & Caldarone, L. B. (2008). Prevalence of PTSD, depression, and TBI among returning service members. In T. L. Tanielian & L. H. Jaycox (Eds.), *Invisible wounds of war: Psychological and cognitive injuries, their consequences, and services to assist recovery* (pp. 35–85). Santa Monica, CA: RAND Corporation.

Ramchand, R., Schell, T. L., Karney, B. R., Osilla, K. C., Burns, R. M., & Caldarone, L. B. (2010). Disparate prevalence estimates of PTSD among service members who served in Iraq and Afghanistan: Possible explanations. *Journal of Traumatic Stress, 23*(1), 59–68.

Reynolds, K., Pietrzak, R. H., El-Gabalawy, R., Mackenzie, C. S., & Sareen, J. (2015). Prevalence of psychiatric disorders in US older adults: Findings from a nationally representative survey. *World Psychiatry, 14*(1), 74–81.

Richardson, L. K., Frueh, B. C., & Acierno, R. (2010). Prevalence estimates of combat-related post-traumatic stress disorder: Critical review. *Australian and New Zealand Journal of Psychiatry, 44*(1), 4–19.

Roberts, A. L., Austin, S. B., Corliss, H. L., Vandermorris, A. K., & Koenen, K. C. (2010). Pervasive trauma exposure among US sexual orientation minority adults and risk of posttraumatic stress disorder. *American Journal of Public Health, 100*(12), 2433–2441.

Roberts, A. L., Gilman, S. E., Breslau, J., Breslau, N., & Koenen, K. C. (2011). Race/ethnic differences in exposure to traumatic events, development of post-traumatic stress disorder, and treatment-seeking for post-traumatic stress disorder in the United States. *Psychological Medicine, 41*(1), 71–83.

Rothbaum, B. O., Foa, E. B., Riggs, D. S., Murdock, T., & Walsh, W. (1992). A prospective examination of post-traumatic stress disorder in rape victims. *Journal of Traumatic Stress, 5*(3), 455–475.

Rothman, E. F., Exner, D., & Baughman, A. L. (2011). The prevalence of sexual assault against people who identify as gay, lesbian, or bisexual in the United States: A systematic review. *Trauma, Violence, & Abuse, 12*(2), 55–66.

Rundell, J. R. (2006). Demographics of and diagnoses in Operation Enduring Freedom and Operation Iraqi Freedom personnel who were psychiatrically evacuated from the theater of operations. *General Hospital Psychiatry, 28*(4), 352–356.

Rush, A., Jr., First, M. B., & Blacker, D. E. (2008). *Handbook of psychiatric measures*. Washington, DC: American Psychiatric Publishing, Inc..

Samnaliev, M., McGovern, M. P., & Clark, R. E. (2009). Racial/ethnic disparities in mental health treatment in six Medicaid programs. *Journal of Health Care for the Poor and Underserved, 20*(1), 165–176.

Sareen, J., Cox, B. J., Stein, M. B., Afifi, T. O., Fleet, C., & Asmundson, G. J. (2007). Physical and mental comorbidity, disability, and suicidal behavior associated with posttraumatic stress disorder in a large community sample. *Psychosomatic Medicine, 69*(3), 242–248.

Schuster, M. A., Stein, B. D., Jaycox, L. H., Collins, R. L., Marshall, G. N., Elliott, M. N., … Berry, S. H. (2001). A national survey of stress reactions after the September 11, 2001, terrorist attacks. *New England Journal of Medicine, 345*(20), 1507–1512.

Segal, D. L., & Williams, K. N. (2014). Structured and semistructured interviews for differential diagnosis: Fundamental issues, applications, and features. In D. C. Beidel, B. C. Frueh, & M. Hersen (Eds.), *Adult psychopathology and diagnosis* (7th ed., pp. 103–129). Hoboken, NJ: Wiley.

Sheehan, D. V., Lecrubier, Y., Sheehan, K. H., Amorim, P., Janavs, J., Weiller, E., … Dunbar, G. C. (1998). The Mini-International Neuropsychiatric Interview (MINI): The development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *Journal of Clinical Psychiatry, 59*, 22–33.

Shay, J. (2014). Moral injury. *Psychoanalytic Psychology, 31*(2), 182.

Simpson, T. L., Balsam, K. F., Cochran, B. N., Lehavot, K., & Gold, S. D. (2013). Veterans administration health care utilization among sexual minority veterans. *Psychological Services, 10*(2), 223.

Skeffington, P. M., Rees, C. S., Mazzucchelli, T. G., & Kane, R. T. (2016). The primary prevention of PTSD in firefighters: Preliminary results of an RCT with 12-month follow-up. *PLoS One, 11*(7), e0155873.

Spottswood, M., Davydow, D. S., & Huang, H. (2017). The prevalence of posttraumatic stress disorder in primary care: A systematic review. *Harvard Review of Psychiatry, 25*(4), 159–169.

Stecker, T., Fortney, J. C., Hamilton, F., & Ajzen, I. (2007). An assessment of beliefs about mental health care among veterans who served in Iraq. *Psychiatric Services, 58*(10), 1358–1361.

van Denderen, M., de Keijser, J., Stewart, R., & Boelen, P. A. (2018). Treating complicated grief and posttraumatic stress in homicidally bereaved individuals: A randomized controlled trial. *Clinical Psychology & Psychotherapy, 25*(4), 497–508.

Vermetten, E., Germain, A., & Neylan, T. C. (Eds.). (2018). *Sleep and combat-related posttraumatic stress disorder*. New York, NY: Springer.

Weathers, F. W., Litz, B. T., Herman, D. S., Huska, J. A., & Keane, T. M. (1993, October). The PTSD Checklist (PCL): Reliability, validity, and diagnostic utility. *In annual convention of the international society for traumatic stress studies, San Antonio, TX* (Vol. 462).

Weathers, F. W., Litz, B. T., Keane, T. M., Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2013). *The PTSD Checklist for DSM-5 (PCL-5)*. Available from the National Center for PTSD at www.ptsd.va.gov.

Wilson, J. P., & Keane, T. M. (Eds.). (2004). *Assessing psychological trauma and PTSD*. New York, NY: Guilford Press.

World Health Organization, ICD-11, 2018 [accessed October 1, 2018]. Available from: https://icd.who.int/browse11/

Yahav, R., & Cohen, M. (2007). Symptoms of acute stress in Jewish and Arab Israeli citizens during the Second Lebanon War. *Social Psychiatry and Psychiatric Epidemiology, 42*(10), 830–836.

Yang, M., Chan, S., Vang, T., Nguyen, T., Ly, M., Phommasouvanh, B., … Cabugao, R. (1989). Depression and posttraumatic stress disorder in Southeast Asian refugees. *American Journal of Psychiatry, 146*(12), 1592–1597.

Zanarini, M. C., Skodol, A. E., Bender, D., Dolan, R., Sanislow, C., Schaefer, E., … Gunderson, J. G. (2000). The collaborative longitudinal personality disorders study: Reliability of axis I and II diagnoses. *Journal of Personality Disorders, 14*(4), 291–299.

Zimmerman, M., & Mattia, J. I. (1999). The reliability and validity of a screening questionnaire for 13 DSM-IV Axis I disorders (the Psychiatric Diagnostic Screening Questionnaire) in psychiatric outpatients. *The Journal of Clinical Psychiatry, 60*, 677–683.