DSM-5 and Posttraumatic Stress Disorder

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The latest iteration of the posttraumatic stress disorder (PTSD) criteria presented in The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) includes specific elaborations of the gatekeeper criteria, a new category of stressor, an expansion in the number of symptoms, addition of a new subtype of PTSD, and an enlarged text discussion that breaks new ground in defining the criteria. We first trace the rationale underlying these changes and their impact on the prevalence of PTSD diagnoses in clinical studies and then present potential implications of the new criteria for forensic assessment methodology and the detection of malingering, interpretations of criminal responsibility and mitigation, evaluation of the reliability of witnesses, the scope of claims in civil and employment cases, and eligibility for disability.

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In considering the potential forensic impact of the changes in the PTSD criteria of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5),[1] one need only recall the words of Allan Stone[2]:

> No diagnosis in the history of American psychiatry has had a more dramatic and pervasive impact on law and social justice than PTSD. . . . The diagnosis of PTSD has also given a new credibility to a variety of victims who come before the courts either as defendants or plaintiffs [Ref. 2, pp 23–4].

Since its introduction in DSM-III in 1980,[3] the criteria set for PTSD has contained the same basic elements: exposure to a traumatic stressor that serves as the gatekeeper criterion, re-experiencing the trauma, numbing and avoidance (the latter added in DSM-IV)[4], and increased arousal and vigilance.

The latest iteration of the PTSD criteria presents a more specific elaboration of the gatekeeper criteria, including a new stressor category; an expansion in the number of symptoms that may be manifested, as well as a regrouping of these symptoms; addition of a new subtype of PTSD; and an expansion of the accompanying text discussion that breaks new ground in defining the criteria. Given that Friedman *et al.*[5] have comprehensively reviewed the rationale and research basis for changes in the PTSD criteria, we will focus the discussion on the specific changes in the adult criteria and their effect on the prevalence of the disorder in clinical studies and then discuss the possible impact of these changes on forensic assessment and criminal and civil litigation. Although comprehensive review of the changes in the criteria for PTSD in children 6 years of age and younger is beyond the scope of our review, we will summarize the new criteria and their potential forensic impact. Table 1 presents a comparison of the PTSD criteria in the DSM-IV-TR,[6] with the criteria for patients older than 6 years in DSM-5.

Trauma- and Stressor-Related Disorders

Several new sections were created in DSM-5, among them "Trauma- and Stressor-Related Disorders," containing PTSD, acute stress disorder (ASD), adjustment disorders (ADs), and childhood reactive attachment disorder. The new section separates PTSD, ASD, and AD from the anxiety disorders (e.g., panic disorder and social phobia). Several concerns have been raised about this change. Zoellner *et al.*[7] have argued that the reclassification undermines the centrality of fear and avoidance in PTSD, dimensions common to all anxiety disorders. Similarly, ex-

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Table 1 PTSD Criteria in DSM-IV-TR versus DSM-5

	DSM-IV TR		DSM-5
A1	The person experienced, witnessed, or was confronted with an event that involved actual or threatened death or serious injury or a threat to the physical integrity of self or others.	A1	Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways: 1. Directly experiencing the traumatic event(s). 2. Witnessing, in person, the event(s) as it occurred to others. 3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental. 4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse). Note: Criterion A4 does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work related.
A2	The person's response involved intense fear, helplessness, or horror.	A2	Eliminated
B	The traumatic event is persistently reexperienced in one (or more) of the following ways:	B	Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:
B1	Recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions.	B1	Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s).
B2	Recurrent distressing dreams of the event.	B2	Recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event(s).
B3	Acting or feeling as though the event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated).	B3	Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.)
B4	Intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.	B4	Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).
B5	Physiologic reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.	B5	Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).
C	Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma) as indicated by three (or more) of the following:	C	Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:
C1	Efforts to avoid thoughts, feelings, or conversations associated with the trauma.	C1	Avoidance of or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
C2	Efforts to avoid activities, places, or people that arouse recollections of the trauma.	C2	Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
		D	Negative alterations in cognitions and mood that are associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two or more of the following:
C3	Inability to recall an important aspect of the trauma.	D1	Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol, or drugs).
C7	Sense of foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span).	D2	Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., "I am bad," "No one can be trusted," "The world is completely dangerous," "My whole nervous system is permanently ruined").
		D3	Persistent distorted cognitions about the cause or consequence of the traumatic event(s) that lead the individual to blame himself/herself or others.
		D4	Persistent negative emotional state (e.g., fear, horror, anger, guilt, or shame).
C4	Markedly diminished interest or participation in significant activities.	D5	Markedly diminished interest or participation in significant activities.

Table 1 (Continued)

DSM-IV TR		DSM-5	
C5	Feeling of detachment or estrangement from others.	D6	Feeling of detachment or estrangement from others.
C6	Restricted range of affect (e.g., unable to have loving feelings).	D7	Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).
D	Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:	E	Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:
D2	Irritability or outbursts of anger.	E1	Irritable behavior and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects.
		E2	Reckless or self-destructive behavior.
D4	Hypervigilance.	E3	Hypervigilance.
D5	Exaggerated startle response.	E4	Exaggerated startle response.
D3	Difficulty concentrating.	E5	Problems with concentration.
D1	Difficulty falling or staying asleep.	E6	Sleep disturbance (e.g., difficulty falling or staying asleep or restless sleep).
E	Duration of the disturbance is at least one month: Acute–when the duration of symptoms is less than three months. Chronic–when symptoms last three months or more.	F	Duration of the disturbance (criteria B, C, D, and E) is more than 1 month. "Acute" and "chronic" eliminated.
F	Requires significant distress or functional impairment.	G	The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
		H	The disturbance is not attributable to the physiological effects of a substance (e.g., medication, alcohol) or another medical condition.
	Specifiers:		With dissociative symptoms (with either depersonalization or derealization).
	With delayed onset: if onset of symptoms is at least six months after the stressor.		With delayed expression: if the full diagnostic criteria are not met until at least 6 months after the event (although the onset and expression of some symptoms may be immediate).

posure-based treatments, effective in PTSD and other anxiety disorders, involve a common methodology intended to reduce fear, avoidance, and arousal symptoms.[8] Finally, available data indicate that trauma does not invariably cause PTSD and, in fact, can precipitate a wide range of affective, anxiety, and behavioral symptoms.[9]

Complicating this emphasis on the primacy of a traumatic event, predisposing and postevent factors play a significant role in the development of PTSD,[10] a fact noted in the text accompanying the revised PTSD criteria. Despite these objections, Friedman *et al.* opined, "There is a useful distinction between those disorders that are precipitated (directly dependent upon) by a traumatic stressor and those that may be exacerbated by one." They went on to state, "Perhaps the most important argument for the exclusivity of a trauma/stress grouping is that stress is necessary, even if not sufficient for the outbreak of the disorder" (Ref. 11, p 741). They also justify the inclusion of the new trauma section because (at the time of their review in 2011) a similar section, "Reaction to Severe Stress and Adjustment Disorders," was already included in the World Health Organization's 10th edition of the International Classification of Diseases (ICD-10).[12] Apart from the scientific controversy as to the appropriateness of separating these conditions from anxiety disorders, the reader wonders if this formulation is simply a tautology or, as Friedman *et al.*[11] explain, a genuine attempt to create a diagnostic grouping with a known etiology in a manual that is otherwise largely phenomenological.

Criterion A: the Gatekeeper

The definition of a qualifying stressor, the so-called gatekeeper criterion, has the greatest impact on the prevalence of PTSD. The two central questions for Criterion A are first, must the stressor involve a life-threatening or serious injury (A1 in DSM-IV-TR)? Second, must exposure to this event be direct, such as experiencing or witnessing, or are indirect exposures, such as being confronted with or learning about, sufficiently intense to justify labeling them traumatic stressors?

Regarding the first question, there is no bright line separating trauma that produces PTSD from trauma that does not. Some research suggests that events that

are not life threatening, such as serious conflicts in a relationship, loss of a job, separation, and serious financial stress may be as likely to cause symptoms of PTSD as those that involve serious threat to bodily integrity.[13] Despite these findings, the DSM-5 Anxiety, Obsessive-Compulsive Spectrum, Posttraumatic, and Dissociative Disorders Work Group felt that the weight of the research indicated that, in most cases, PTSD does not develop unless the individual is exposed to events that are "intensely stressful," constituting "watershed events" in the life of the patient (Ref. 5, p 754).

As to the specific definition of an intensely stressful event, DSM-5 retains the prior description of "threatened death, serious injury" and adds "sexual violence." Whereas the text in DSM-IV-TR limits the description of sexual trauma to "sexual assault" (Ref. 6, p 463), DSM-5 presents a wide-ranging set of examples of sexual violence ("e.g., forced sexual penetration, alcohol/drug-facilitated sexual penetration, abusive sexual contact, noncontact sexual abuse, sexual trafficking") (Ref. 1, p 274). The Manual does not provide further detail to operationalize "abusive sexual contact" or "noncontact sexual abuse." Further, examples of traumatic events provided in the text (i.e., "being kidnapped, being taken hostage, terrorist attack, torture . . . ") (Ref. 1, p 274) stand in contrast to the formulation of sexual violence, complicating efforts to define an intensely stressful or watershed event clearly.

Despite this increased range of qualifying events, the DSM-5 authors cite the earlier formulation by the DSM-IV-TR Work Group that elimination of A1 (threats to life or severe injury) could lead to "widespread and frivolous use" of the PTSD concept (Ref. 5, p 754). This caveat suggests that the decision to retain A1 was based on both scientific arguments and a desire to protect the integrity of the diagnosis, possibly with an eye toward the use of the diagnosis in forensic settings. Nevertheless, the inclusion of the vague term noncontact sexual abuse may, in fact, threaten the integrity of PTSD.

Regarding direct versus indirect exposure to the stressor, available research indicates that direct exposures predict more serious symptoms.[13] DSM-5 maintains the primacy of direct exposure, listing both "directly experienced" (A1) or "witnessed" (A2). That said, a growing body of research indicates that indirect exposure, such as learning about homicide; physical or sexual assault; or traumatic death in combat, disaster, or terrorism occurring to a loved one can precipitate PTSD symptoms.[5] As a result, in DSM-5, "learning" was moved from its prior position in the text of DSM-IV-TR (Ref. 6, p 463) into the criteria set as A3, substituting it for the phrase "confronted with" which was part of DSM-IV-TR A1.

During the development of DSM-5, McNally[14] argued that the addition of indirect exposures to DSM-IV creates a bracket creep, expanding those eligible for the diagnosis. In fact, Breslau and Kessler[15] demonstrated that the addition of indirect exposures to DSM-IV resulted in a 59 percent increase in traumatic events over DSM III and that the added events were responsible for 38 percent of PTSD diagnoses. In contrast, a later study found a lower prevalence of PTSD diagnoses when the DSM-IV criteria were applied, compared with those in DSM-III, despite the inclusion of indirect exposures.[16] The authors attributed this reduced prevalence to the requirement in DSM-IV (not present in DSM-III) that symptoms cause "significant distress or impairment" (Criterion F) (Ref. 4, p 428). These conflicting findings and the critique of the inclusion of indirect stressors informed the decision to narrow the indirect exposure definition in DSM-5 A3 to "an actual or threatened death of a family member or friend." Calhoun *et al.*[17] found that this change had the intended effect, causing a six to seven percent decrease in the rate of PTSD diagnoses when indirect exposures were limited to violent or accidental death or injury of another person.

The DSM-5 Work Group took the additional step of expanding indirect exposures by adding A4: "repeated or extreme exposure to aversive details of the traumatic event(s)." The examples provided include first responders who must collect human remains and police officers who are repeatedly exposed to details of child abuse. Of note, A4 receives no further explication in the "Diagnostic Features" section. Instead, the "Prevalence" section contains an oblique reference to A4, stating, "Rates of PTSD are higher among veterans and others whose vocation increases the risk of traumatic exposure (e.g., police, firefighters, emergency personnel)" (Ref. 1, p 276). Although it is not made entirely clear in this spare discussion, this criterion suggests that therapists and social service workers,[18] as well as legal professionals, such as public defenders,[19] prosecutors,[20] and judges,[21] who regularly encounter crime scene details of homicide

and domestic violence, could develop PTSD. Previously, these responses have been labeled "secondary traumatic stress" (Ref. 22, p 2) or "vicarious trauma" (Ref. 23, p 558), as distinct from PTSD. No data are yet available that assess the impact of the addition of A4 on the prevalence of PTSD.

The elimination of A2 in DSM-IV-TR requiring that the exposure precipitate "fear, helplessness or horror" (Ref. 4, p 428) was based on its lack of predictive value for the development of symptoms of PTSD and studies that indicated that its elimination did not increase prevalence.[5,24] In addition, the DSM-5 Work Group was inclined to eliminate A2 because "trained military personnel may not experience fear, helplessness, or horror during or immediately following a trauma" (Ref. 5, p 756), and victims who experience mild traumatic brain injury (TBI) may be unaware of their response at the time of the stressor, yet still develop PTSD symptoms (explicated in a specific text section on TBI, Ref. 1, p 280). Further, the authors felt that both trauma-induced dissociation and current mood state may bias recall of responses at the time of the trauma.[5]

Symptom Clusters

Once individuals are deemed to have experienced a qualifying stressor, they must demonstrate a series of symptoms from four different clusters. Criterion B, re-experiencing of the traumatic event, although relatively unchanged in DSM-5, contains several potentially important alterations in wording. B1 no longer includes images or thoughts of the event, a change based on the authors' conclusion that these have a reflective quality, whereas the intrusive, involuntary memories of PTSD are more sensory and immediate.[5] This subtle difference may decrease the prevalence of this symptom. Dreams about the event may now be related to the affect associated with the trauma as well as the details of the event (B2), a change in keeping with the observation by Resnick[25] that recurrent dreams with unvarying content are uncommon and may be an indicator of malingering.

B3 clarifies that dissociative flashbacks can include the "loss of awareness" of present surroundings. According to the text, which is unchanged from DSM-IV-TR, these dissociative states could "last from a few seconds to several hours or even days" (Ref. 1, p 275). The addition of the "loss of awareness" to the criteria, even though DSM-IV-TR contains a similar description in the text, reinforces the notion that those who have PTSD may, at times, be out of touch with reality. B4 and B5, emotional and physiological responses to cues, are unchanged, despite disagreement regarding their specificity for PTSD.[5] Friedman *et al.*[5] argued that these symptoms may be present in individuals with no memory of the event (such as those with TBI), suggesting that these cued responses are outside of awareness.

In consideration of evidence indicating that PTSD symptom clusters sort into four factors (re-experiencing, avoidance, numbing, and hyperarousal) rather than three,[26] in DSM-5, avoidance and numbing were placed into separate categories, whereas in DSM-IV-TR they were both contained in Criterion C. Individuals must demonstrate at least one avoidance symptom, whereas previously they could fulfill Criterion C with only numbing symptoms (i.e., C4–C7 in DSM-IV-TR). (Ref. 6, p 468). This more stringent requirement apparently has little impact on prevalence, lowering the incidence of PTSD by only one to two percent.[27]

Whereas the avoidance criteria themselves are unchanged, the numbing cluster (Criterion D) has been reworked to include negative alterations in cognitions and mood (D2–D4) in addition to numbing and inability to recall aspects of the event, criteria already contained in DSM-IV-TR (C4–C6) (Ref. 6, p 468). These additions expand the DSM-IV-TR C7 (foreshortened future) to include negative beliefs about oneself, others, and the world; self blame regarding the event; and a pervasive negative emotional state including "fear, horror, anger, guilt, or shame" (D4).

The hyperarousal criteria, now listed in Criterion E, include all of the symptoms that appeared in DSM-IV-TR and the notable additions of "reckless or self-destructive behavior" (E2) and "verbal or physical aggression" (E1). The text states, "Reckless behavior may lead to accidental injury to self or others, thrill seeking, or high risk behaviors" (Ref. 1, p 277). Recent research indicates that PTSD correlates with an increase in reckless and self-destructive behavior in adolescents,[28] in dangerous driving,[29] and in risky sexual behavior in adult survivors of child abuse.[30] Similarly, available data indicate an increase in aggressive behavior in veterans[31] and civilians[32] with PTSD. Calhoun *et al.*[17] reported aggressive behavior in 58 percent and recklessness in 17 percent of their sample of 185 adults, a third of whom were veterans. In addition to these new hyperarousal

symptoms, the text in DSM-5 explicating hypervigilance states, "PTSD is often characterized by a heightened sensitivity to potential threats, including those related to the traumatic experience . . . " (Ref. 1, p 275). The association between PTSD and violence is, nevertheless, complex. Koffel *et al.*[33] reported that although anger has a higher correlation ($r = 0.5$) with PTSD than depression ($r = 0.27$) and substance abuse ($r = 0.31$) have, aggressive behavior correlates equally with PTSD ($r = 0.27$) and substance abuse ($r = 0.32$). They concluded that aggression is not unique to PTSD.

Following the release of DSM-5, Kilpatrick *et al.*[34] reported a study of 2,953 subjects recruited from an active panel of adults participating in an online sampling program (i.e., a nonclinical sample). The subjects responded to questions that covered both DSM-IV and DSM-5 trauma and symptom criteria. The survey revealed that 89.7 percent of the subjects experienced an event that met the DSM-5 Criterion A compared with 93.7 percent who met Criterion A in DSM-IV. This difference largely derived from exclusion of nonviolent death or injury to a loved one in DSM-5. Lifetime prevalence of DSM-5 PTSD was significantly lower than that in DSM-IV (9.4% vs. 10.6%). The two most important factors contributing to this difference were first, as expected, elimination of indirect exposure to the nonviolent death of a loved one (60% of the discrepant cases) and, second, failure to have at least one avoidance symptom as required under DSM-5 Criterion C (37% of the discrepant cases). Thus, the more stringent DSM-5 Criterion A requirement for indirect exposures and the creation of a separate criterion for avoidance symptoms have a small but measurable impact on PTSD prevalence.

Specifiers

DSM-5 adds a new subtype, "with dissociative symptoms" (Ref. 1, p 272) in which the individual recurrently experiences depersonalization and/or derealization. This new classification derives from studies indicating the presence of the dissociative symptoms in PTSD,[35,36] as well as indications that dissociative symptoms confer a worse prognosis and complicate exposure treatments.[37,38] This addition strengthens the recognition of dissociation in PTSD and highlights findings that a subset of patients with PTSD may not respond as well to treatment.

Whereas DSM-5 eliminates the acute and chronic specifiers because they lack scientific support, the somewhat controversial delayed-onset specifier is maintained. In DSM-IV-TR, that specifier was indicated when "at least six months have passed between the traumatic event and the onset of symptoms" (Ref. 6, p 465), a description that implies that the individual may not have experienced any symptoms until six months after the event. A 2007 review of the literature indicated that absence of any symptoms before six months is quite rare, whereas the typical pattern is the appearance of some symptoms before the full criteria are manifested.[39] These findings are reflected in the DSM-5 text language indicating that "some symptoms typically appear immediately and that the delay is in meeting full criteria" (Ref. 1, p 276). Despite this, DSM-5 has left the door open for diagnosis of PTSD six months after the event in the absence of any prior symptoms.

Text Discussion

The DSM-5 text discussion contains many of the same elements present in the text in DSM-IV-TR, with some notable additions. In the "Prevalence" section, DSM-5 introduces the term subthreshold presentations, a terminology not mentioned in prior manuals. The authors observe that these presentations are more common in later life and "are associated with substantial clinical impairment" (Ref. 1, p 276). Friedman *et al.*[5] explain in their paper discussing the rationale for the new criteria that because the evidence for partial/subthreshold PTSD presentations is inconclusive, the term is not used as a specifier. Notably, Strain and Friedman[40] recommended an ASD/PTSD subtype for adjustment disorders to fill this gap, but this proposal was also rejected because the work group felt that the unmodified AD label was sufficient (Strain J, personal communication, September 2013).

The new section, "Risk and Prognostic Factors," expands on the brief discussion of these topics in the DSM-IV-TR text. This more detailed enumeration of the pre-, peri-, and posttrauma factors that increase risk (or confer protection) is a welcome attempt to elucidate the finding that only a minority of trauma victims develop PTSD.[41]

Regarding the course of PTSD, the DSM-5 text summarizes available evidence stating that symptoms vary over time, with "recurrence and intensification . . . in response to reminders of the original

trauma, ongoing life stressors, or newly experienced traumatic events" (Ref. 1, p 277). This point is similar to the DSM-IV-TR discussion of PTSD's course, but DSM-5 then adds that, in older individuals, "declining health, worsening cognitive functioning, and social isolation may exacerbate PTSD symptoms" (Ref. 1, p 277). These formulations indicate that PTSD is a chronic condition that waxes and wanes and may be expected to increase as the victim ages.

The text section on the cultural aspects of PTSD notes that clinical expression of symptoms may vary cross-culturally with respect to avoidance and numbing symptoms, distressing dreams, and somatic symptoms. This addition highlights the need for flexibility when applying the criteria to individuals from other cultures.

PTSD in Children

According to Friedman,[42] recent research prompted inclusion of a preschool subtype for children 6 years of age and younger. The committee responded to data indicating an "implausibly low rate of PTSD in young traumatized children who frequently exhibit all three DSM-IV symptoms clusters of PTSD, but not to the extent to exceed the diagnostic threshold for PTSD" (Ref 42, p 553). When the number of symptoms required were reduced and behavioral indicators more consistent with childhood responses were included, the prevalence of PTSD increased to levels similar to those seen in adults exposed to trauma.

Implications for Forensic Psychiatric Practice

Assessment

The PTSD criteria in DSM-5 present new challenges to the forensic examiner and highlight old ones, including the need to detect malingered PTSD. The increased list of possible stressors reinforces the desirability of a structured interview enumerating a list of traumatic experiences rather than reliance on open-ended questioning, and also emphasizes the need for corroboration,[43] a mainstay in the investigation of malingering. Regarding specific stressors, the vague definition of sexual violence in the text is particularly challenging, providing an avenue to extend the boundaries of the diagnosis. Given the lack of benchmarks in this area, experts will debate what constitutes stressor-qualifying sexual violence.

The inclusion of employment-related exposures in A4 may increase the demands on examiners to understand work conditions, and particularly, the nature and frequency of traumatic material encountered on the job. The examiner would need to review these materials and perhaps even present them to the plaintiff during evaluation to judge the plaintiff's response (e.g., to pictures or narratives of traumatic events), along the lines of the recommendations of Pitman *et al.*[44] that measurement of physiologic responses to reminders could be one means of detecting malingering.

It remains to be seen how elimination of DSM-IV-TR A2 will affect claims of PTSD. As noted, although studies in clinical populations do not indicate a change in the prevalence of PTSD when the requirement that the individual experience intense fear, helplessness, or horror at the time of the traumatic event is eliminated, this change is counterintuitive and appears to increase the potential for malingering. Defendants may ask plaintiffs' experts to explain how it is possible for victims who were not either trained professionals, dissociated, or head injured (the groups cited as the basis for elimination of A2) to develop PTSD when they did not experience fear at the time of the trauma. Conversely, establishing the presence of such reactions, although not required in DSM-5, may increase the credibility of PTSD claims.

In the evaluation of symptoms, cognitive constructs such as distorted self-blame and persistent negative beliefs may be difficult to ascertain accurately, because they are based on self-report. Negative beliefs (D2) and distorted cognitions (D3), as well as impaired recall (D1) and detachment (D6), are difficult to verify independently and may be relatively easy to malinger. In fact, the only symptoms in this cluster that are readily observable are persistent negative emotional state (D4), diminished interest and participation (D5), and difficulty experiencing positive emotions (D7). Thus, one could fulfill Criterion D with symptoms (only two are required) that are largely based on self-report and are difficult to verify, complicating the diagnostic process in an adversarial legal setting.

A further assessment challenge is to distinguish PTSD-based recklessness and aggression from the effects of other contributors to violence including, as noted, substance abuse and depression. This necessary distinction places an additional premium on a

thorough evaluation in which multiple sources of observation of the individual are considered,[45] to parse out the role of PTSD compared with other factors.

Several of the PTSD instruments in current use, such as the Clinician Administered PTSD Scale, have been revised or are under revision by the National Center for PTSD to reflect the changes in DSM-5,[46] but none of the instruments is designed to detect whether the individual is endorsing symptoms that are not present. Instruments that elucidate personality and psychological make-up, and shed light on malingering, such as the Minnesota Multiphasic Personality Inventory (MMPI-2),[47] may facilitate assessment of the individual's tendency to magnify distress and/or overendorse symptoms.

In presentations that do not meet the full criteria for PTSD, an ASD/PTSD subtype for AD would have created another avenue for introducing the label of PTSD, particularly in cases where the stressor is a nontraumatic event, such as verbal abuse from a superior, financial difficulties, or job loss, but this proposal was rejected by the DSM-5 Work Group. As it stands now, the text specifies that diagnoses of adjustment disorder or other and unspecified trauma- and stressor-related disorder should be applied when full criteria are not met (i.e., when there are insufficient symptoms or symptoms without a qualifying stressor). This approach will permit plaintiffs to include the term trauma when describing potential damages. The text discussion of subthreshold presentations with resultant clinical impairment also increases the risk of introducing the PTSD label, even when full criteria are lacking, particularly because DSM-5 does not define the boundaries of subthreshold. Any presentation of a subthreshold argument would require a careful investigation of the extent of impairment in addition to enumeration of symptoms.

PTSD and Criminal Law

PTSD has been offered as a basis in criminal defenses including insanity, unconsciousness, self-defense, and diminished capacity, as well as in sentence mitigation proceedings,[48] although, in one study, PTSD was advanced as the basis for an insanity defense in only 0.3 percent of all insanity pleas.[49] The expanded criteria as well as the newly added symptoms in the DSM-5 are likely to increase the use of PTSD diagnoses by defendants in both the guilt and sentencing phases. As summarized by Berger *et al.*,[48] the successful use of PTSD in an insanity defense has been predicated on a demonstration of the presence of dissociative phenomena, primarily flashbacks, that transiently cause defendants to misperceive their circumstances and act as would be reasonable in the context of the flashback. This approach would be applicable in a jurisdiction using the *M'Naughten* standard. In jurisdictions applying an American Law Institute (ALI) standard, the argument would shift to the impact of PTSD on volition, and specifically, whether the instant offense was a spontaneous, unpremeditated reenactment of the prior trauma.[50]

Although the success of these approaches has been mixed, defendants may believe that the new emphasis on dissociation will strengthen their presentation, but the dissociative subtype alone, with its symptoms of derealization and depersonalization, does not necessarily equate to a loss of reality testing. Similarly, although the text discussion of extended flashbacks may be a more successful path to establishing a break with reality during a flashback, with consequent inability to understand the nature and quality or the wrongfulness of one's actions, difficulty corroborating the presence, timing, and magnitude of flashbacks will continue to complicate the successful use of PTSD in establishing an insanity defense. Creating further complexity, it may be difficult to determine whether dissociative phenomena preceded violent actions or developed as a consequence of disturbing aspects of the violence itself.[51]

PTSD has also been used to support an unconsciousness or automatism *actus reus* defense,[48,52] although it is more commonly used to negate *mens rea*. The highlighting of "complete loss of awareness of present surroundings" in B3 lends support to an unconsciousness defense, although the actual experience may be difficult to discern reliably and even more difficult to demonstrate convincingly. Black's Law Dictionary, Ninth Edition,[53] defines automatism as an "action or conduct occurring without will, purpose, or reasoned intention, such as sleepwalking; behavior carried out in a state of unconsciousness or mental dissociation without full awareness" (Ref. 53, p 154). DSM-5 B3 is congruent with this definition. The text adds that during a flashback the "individual behaves as if the [past traumatic] event were occurring at that moment" (Ref. 1, p 275) (i.e., without full awareness of the current situation). Recent neu-

robiological research may be enlisted to explain the lack of awareness in PTSD-based automatic behavior. Specifically, Hamilton[52] suggests that invoking the construct of stress-induced fear circuitry could provide a compelling argument in an unconsciousness defense. These circuits are believed to be responsible for rapid responses to perceived danger before rational and conscious appraisal of the situation.

Hyperarousal symptoms of recklessness and aggression might be conceptualized as automatic behavior, but are rarely the sole basis for particular conduct, especially complex or multistep conduct. These symptoms, however, may be relevant to diminished capacity and mitigation dimensions in criminal proceedings.[54] Defendants may argue that aggressive behavior is the result of PTSD-related recklessness and aggression rather than the product of fully formed intent. Courts are increasingly recognizing these considerations in criminal proceedings involving veterans,[55] leading to leniency in sentencing.[54] Donley *et al.*[32] recently demonstrated in a low-income, urban population that exposure to trauma and civilian PTSD confer increased risk of involvement in the criminal justice system and, specifically, charges for violent offenses. Defendants might use this association together with DSM-5 criteria when seeking mitigation.

Similar considerations arise around recklessness, a dimension that bears on both criminal and civil litigation. For instance, the recklessness dimension of PTSD could be invoked to explain nonviolent conduct such as reckless driving. Experts will be tasked with separating the primacy of PTSD as a cause for reckless behavior from, for example, substance abuse, attention deficit disorder, or antisocial personality. In such cases, defendants with substance abuse and PTSD are likely to enlist this criterion to minimize the role of substance abuse in facilitating their aggressive behavior.

The more explicit text discussion of heightened sensitivity to potential threats may strengthen arguments that defendants had a reasonable belief (from their perspectives) of imminent harm. This argument has already been used in cases in which battered women assaulted or killed abusive mates who were not immediately threatening.[48] The combination of a heightened perception of threat and symptoms of aggression in a defendant with PTSD may also provide a compelling argument for diminished capacity.

Finally, the highlighted emphasis in DSM-5 on memory and dissociation may affect the credibility of witnesses in both criminal and civil proceedings. In light of the failure-of-proof argument raised at the Hague War Crimes Tribunal, in which the defendant asserted that a witness's memory of atrocities was inaccurate owing to the impact of traumatic experiences, Sparr and Pitman[56] opined that courts may preclude testimony from a victim or witness who has PTSD. Although it is more likely that courts will admit the testimony, the presence of PTSD, particularly the dissociative subtype, could serve to undermine a witness's credibility.

Correctional Psychiatry and Asylum Seekers

Several studies document increased prevalence of PTSD in jail and prison populations compared with the general population. Lifetime rates of PTSD in female jail detainees range from 33.5 to 48.2 percent,[57,58] considerably higher than the 10.4 percent rate reported in a community sample, according to DSM III-R criteria.[59] Trestman *et al.*[60] reported that 20 percent of males and 41.8 percent of females screened at jail intake met criteria for DSM-IV PTSD. In a study of convicted female prisoners, Warren *et al.*[61] reported that, in addition to high rates of violence (73.6%) and sexual (60.7%) victimization, 93.5 percent of these women reported witnessing harm to others. All these studies emphasize the need to include screening for PTSD in correctional settings. Although it is unclear whether the DSM-5 criteria will alter the prevalence of PTSD among detainees and prisoners, increased training of correctional mental health staff is needed in the recognition, and more important, the treatment of PTSD. Improved recognition and treatment of PTSD with particular attention to diminishing hyperarousal symptoms may diminish assaultive behavior that is disruptive in the correctional environment.

In the evaluation of asylum seekers, some of whom are detained, the text explanation of cultural factors may be of particular assistance in the determination and description of PTSD, because it provides for flexibility in applying the criteria to individuals from other cultures. Presentation of this discussion in DSM-5 may assist fact finders who often have difficulty in recognizing the effects of trauma on individuals from other cultures because of their atypical presentations.[62,63]

Civil Considerations

Emotional Distress Damage Litigation

PTSD claims for emotional distress invariably turn on defining the stressor to be traumatic. The revisions in Criterion A along with the accompanying text discussion represent an expansion of the realm of traumatic stressors. Previously, in sexual harassment matters, for example, a hostile work environment characterized by sexually offensive comments without direct threat or physical contact would not qualify as a PTSD-level trauma, and plaintiffs would need to use the less viscerally powerful diagnosis of adjustment disorder. The addition in DSM-5 of the vague term noncontact sexual abuse arguably elevates that environment as well as behaviors such as fondling or exhibitionism to qualifying trauma, permitting plaintiffs to label their symptoms as PTSD. Experts taking this position might then be called on to explain how noncontact sexual abuse is a traumatic stressor equivalent to the kidnapping or torture examples described in the text. In sum, notwithstanding that the authors' stated desire was to avoid widespread and frivolous use of the PTSD diagnosis, the vague term noncontact sexual abuse may have the opposite effect.

Regarding the assessment of damages caused by PTSD, beyond symptoms of numbing, negative mood, and loss of pleasure, plaintiffs could claim that reckless or aggressive behavior resulted from PTSD and then attempt to hold the defendant liable for their subsequent actions (e.g., a car accident or aggressive behavior). In cases involving domestic violence or incest, the creation of a separate section specifying criteria for PTSD in children six years of age or younger may facilitate diagnosis of PTSD in those actions.

Enshrining PTSD in a category of trauma- and stressor-related disorders may strengthen the perception of direct causation, despite evidence that predisposing factors and posttrauma experiences often play an important role in the development of PTSD.[10]

On the other hand, the expanded text discussion of the role of pre-, peri-, and posttraumatic factors in the development of PTSD could be used by defendants to weaken the causal but-for link between the trauma and resultant symptoms. Specifically, the defendant might argue that posttrauma factors (e.g., job loss after the traumatic experience) were factors, in addition to the trauma itself, in the development of PTSD, particularly in light of the literature indicating that posttrauma factors can play a critical role in determining who will develop PTSD.[10]

Employment Litigation

DSM-5 is the first edition of the Manual to identify vocational responsibilities explicitly as potential qualifying traumatic experiences that could precipitate PTSD. The examples given in the criteria and the text (police, firefighters, first responders, and emergency medical personnel) are intuitively obvious to a lay fact finder, but other groups such as mental health professionals, social service workers, and legal personnel routinely encounter lurid details of traumatic events. All of these secondary victims of trauma could make claims of on-the-job injury that fall into the mental-mental injury category (i.e., a mental stressor precipitating psychological symptoms) recognized under workers' compensation legislation.[64]

Compensation for mental-mental claims has been limited in some states to sudden, unexpected exposure,[64] but A4 will provide support for regarding ongoing exposures on the job as qualifying injuries. Experts may be called on to evaluate whether these exposures actually fulfill the A4 criterion of "extreme exposure to aversive details of the traumatic event," perhaps requiring that they opine how a reasonable person would respond to the material.

In addition to use of the PTSD diagnosis in these settings to support compensation claims, new concerns regarding disability accommodations may emerge. Would the worker who develops PTSD due to job-related exposure to traumatic material be entitled to an accommodation under the Americans with Disabilities Act of 1990 (ADA)[65] shielding him from that material? If so, determination of the permissible frequency and extent of exposure, as well as what materials are not traumatic, may be complex and controversial. On the other hand, if contact with traumatic material is an essential feature of the job, the employer may not be required to make an accommodation.

Disability

PTSD has formed the basis for disability claims under Social Security, private insurance, and veterans compensation. Although the changes in Criterion A may increase claims, particularly stemming

from A4, claimants applying for Social Security Disability Insurance benefits must still establish that they are unable to engage in "any substantial gainful activity" (Ref. 64, p 166). This high bar requires documentation of function beyond the diagnosis itself. Individuals who are no longer able to work with traumatic material are likely to be capable (following recovery) of engaging in a range of alternative employment and thus would not qualify.

In private plans where disability may be job specific, a PTSD claim based on an A4 stressor could, in fact, qualify for disability (e.g., a surgeon who has developed PTSD due to repeated exposure to horrific injuries and can no longer tolerate the sight of blood). In light of this new definition connecting PTSD to work exposure, employers may need to attend more carefully to the impact of traumatic material on employees to safeguard their well-being, promote effective functioning, and avoid potential employment actions.

The inclusion of physical aggression as a diagnostic element of PTSD could affect an employer's handling of an aggressive worker. Employers are permitted under the ADA to end the employment of those with disorders that otherwise would require accommodation if the individual poses a significant risk of committing acts of workplace violence.[64] However, if individuals could demonstrate that their risk of acting violently arose from PTSD, they would be able to request accommodations that will diminish potential triggers of aggression. This approach may provide sufficient legal justification to maintain employment. Conversely, from a risk-management perspective, employers may more readily request a violence risk assessment of employees with PTSD.

PTSD is the most common psychiatric condition for which veterans seek compensation.[56] Several of the changes in the criteria may affect PTSD claims. First, learning of the violent or accidental death of a close friend (A3) could support a claim of PTSD triggered by the death of a buddy in combat. The Department of Veterans Affairs may be forced to exclude A3-related PTSD or risk a significant increase in claims. Second, military personnel are likely to have repeated or extreme exposure to aversive details of traumatic event(s) (A4). The handling of remains is already a recognized stressor in the military,[56] but A4 opens the door for consideration of repeated exposure to gruesome details of combat experienced by noncombat personnel, such as medical staff and social service workers. Finally, Frierson[50] noted that recent changes instituted by the Department of Veterans Affairs specify that veterans need only show that they served in a combat zone and had a job consistent with conditions related to PTSD, even if not in direct contact with the enemy. This policy extends the definition of a PTSD-qualifying exposure beyond the DSM-5 criteria, opening the door for PTSD claims in a wider range of military related litigations beyond simple disability, (e.g., criminal responsibility).

With the introduction of delayed PTSD in DSM-III, the then Veterans Administration waived the requirement that service-related psychiatric conditions develop within one year after military service, causing a sharp increase in claims.[56] The DSM-5 discussion of delayed onset may decrease such claims because the text emphasizes that "some symptoms typically appear immediately and that the delay is in meeting full criteria" (Ref 1, p 276). This addition does not fully close the door on the assignment of the PTSD diagnosis when there is no evidence of subthreshold symptoms for months or perhaps years before the development of the full symptom picture.

Similarly, the text formulations that PTSD symptoms fluctuate and may increase with age indicate that an individual with PTSD, even in symptom remission, will always be vulnerable to a recurrence. Veterans may place new claims when they relapse after an extended period of recovery. In the civil arena, plaintiffs could seek to toll the statute claiming that the past trauma created a vulnerability to symptoms years after the event. Finally, the addition of the dissociative subtype in DSM-5 may also affect disability claims, because identification of this subtype would indicate a worse prognosis.

Conclusion

Although it is not possible to predict precisely how courts and attorneys will respond to the new PTSD criteria in DSM-5, we anticipate an increase in claims due to expansion in the definition of qualifying events, new efforts to diminish criminal responsibility derived from the inclusion of new symptoms, and effects on disability and employer accommodations. In the courtroom, the impact of the revised criteria will depend on the interaction between the expert's ability to incorporate and explain these changes credibly and the fact finder's willingness to accept them. Because concepts of trauma and PTSD have become

widely accepted and understood in the wake of 9/11 and the well-publicized return of veterans with PTSD, fact finders are likely to be more sympathetic and accepting of PTSD claims in the courtroom. This combination of broader criteria and increased public acceptance may affect our legal system for years to come.

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