Posttraumatic Stress Disorder in DSM-5: New Criteria, New Measures, and Implications for Assessment

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Abstract The diagnostic criteria for posttraumatic disorder (PTSD) were substantially revised for Diagnostic and Statistical Manual of Mental Disorders—5th edition (DSM-5). This in turn necessitated revision of DSM-correspondent assessment measures of PTSD. We describe the various changes to the PTSD diagnostic criteria and the corresponding changes to National Center for PTSD measures. We also discuss the implications of the new criteria for assessment of trauma exposure and PTSD. Although the DSM-5 version of PTSD departs significantly in some respects from previous versions, we conclude that there is fundamental continuity with the original DSM-III conceptualization of PTSD as a chronic, debilitating mental disorder that develops in response to catastrophic life events.

Keywords DSM-5 · PTSD · Assessment

The diagnostic criteria for posttraumatic stress disorder (PTSD) were substantially revised for the recently published Diagnostic and Statistical Manual of Mental Disorders—5th edition (DSM-5; APA 2014). Although the PTSD criteria were revised twice previously since the disorder was introduced in DSM-III (APA 1980), most major revisions to the symptom criteria were made in the transition to DSM-III-R (APA 1987), with the only change of consequence for DSM-IV (APA 1994) being an expanded

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definition of trauma in Criterion A. Thus, after the advent of DSM-III-R, the PTSD criteria were generally stable for more than 25 years. Over that time, however, clinical observation and a burgeoning research literature in the field of traumatic stress brought to light a number of concerns regarding the conceptualization of trauma and PTSD. These concerns motivated an exhaustive revision process in the run-up to DSM-5 that culminated in a number of significant changes to the PTSD criteria.

The most notable of these changes include (a) moving PTSD out of the anxiety disorders and into a new trauma- and stressor-related disorders chapter, (b) eliminating Criterion A2, (c) splitting the avoidance and numbing cluster into two separate clusters labeled avoidance and negative alterations in cognition and mood, (d) adding three new symptoms and re-conceptualizing several others, (e) adding a dissociative subtype, and (f) creating separate criteria for preschool children. Other less conspicuous but important changes include elaborating and tightening the concept of indirect exposure to trauma and emphasizing the functional link between symptoms and the traumatic event.

Collectively, these changes reflect an important new phase in the ongoing evolution of the PTSD diagnostic criteria, and they will pose significant challenges in the transition from DSM-IV to DSM-5 as the new criteria are adopted and fully disseminated. The impact of these changes will be felt in several ways. First, inevitably there will be questions and discussion, if not heated debate, regarding the meaning and intent of the new PTSD criteria. Clinicians may find some elements of the criteria to be unfamiliar or even contradictory with their previous understanding and practice. The criterion language and accompanying text provide guidance, but additional explication may be needed to clarify the intended meaning of the various criteria and ensure that clinicians interpret and apply the criteria uniformly. Second, the changes will necessitate revision of standardized measures for assessing trauma exposure and PTSD symptoms. Third, the changes will trigger a new wave of studies aimed initially at evaluating the correspondence between DSM-IV and DSM-5 criteria, then eventually at validating the DSM-5 version of PTSD as the new consensus definition for the field.

94

Psychol. Inj. and Law (2014) 7:93–107

In this paper, we address each of these vital areas. We begin with an overview of general issues regarding the classification and conceptualization of PTSD in DSM-5. Then we consider each of the DSM-5 diagnostic criteria in turn, identifying each of the various changes and detailing the intent and rationale, but also highlighting notable points of continuity. Next, we describe the process of revising the National Center for PTSD assessment instruments for DSM-5. These include the PTSD Checklist, the Clinician-Administered PTSD Scale, and the Life Events Checklist, which are among the most widely used and extensively validated measures in the field of traumatic stress. We conclude by discussing the implications of the DSM-5 criteria for assessment of PTSD.

The DSM-5 PTSD criteria were developed by the Trauma/Stress-Related and Dissociative Disorders Sub-Work Group (hereafter referred to as the SWG), one of three sub-work groups of the DSM-5 Anxiety and Dissociative Disorders Work Group (Friedman, 2013a). The revision process began in 2008 and involved extensive literature reviews, substantial input from a large group of leading trauma experts, and public commentary. As with the DSM-5 revision in general, the SWG took a conservative approach in revising the PTSD criteria, requiring that any change be justified by a very high level of scientific evidence. As it turns out, little was removed; most changes involved additions of new criteria or modification of existing criteria. The PTSD revision process—including the various questions considered, options proposed, and rationale for all final decisions—is described in detail in Friedman (2013a, b); Friedman, Resick, Bryant and Brewin (2011a) and Friedman et al. (2011b). These articles are the basis for much of the discussion in the next two sections of the present paper.

Classification and Conceptualization of PTSD

One of the most conspicuous changes regarding PTSD in DSM-5 is its removal from the anxiety disorders and reclassification in a new trauma- and stressor-related disorders (TSRD) chapter, along with reactive attachment disorder, disinhibited social engagement disorder, acute stress disorder, and adjustment disorder. The decision to reclassify PTSD was made primarily in recognition of the heterogeneity of posttraumatic clinical presentations, which may involve not only fear and anxiety, but also predominant dysphoria and anhedonia, anger and aggression, guilt and shame, dissociation, or some combination of all of these symptoms. PTSD was grouped with the other TSRDs because they all include exposure to a traumatic or stressful event as a diagnostic criterion and presumptive etiological factor. The etiological implication is more explicitly stated for reactive attachment disorder and disinhibited social engagement disorder (i.e., the stress of inadequate care of a child is "presumed to be responsible for" symptoms), whereas for PTSD and acute stress disorder

only the temporal aspect is noted (i.e., symptoms began "following exposure to one or more traumatic events").

The classification of PTSD has been a focal issue since the disorder was introduced in DSM-III. Davidson and Foa (1991) provided an early detailed analysis. Drawing on then-available research findings across key domains such as symptom presentation, comorbidity, biological aspects, and treatment response, they identified nosological links between PTSD, anxiety, and specific anxiety disorders (phobia, generalized anxiety disorder, obsessive-compulsive disorder, panic disorder), which was to be expected, given placement of PTSD in the anxiety disorders. More importantly, though, they noted strong connections with disorders such as depression, dissociation, and borderline personality disorder. They concluded that PTSD fit better as an anxiety disorder than as a depressive or dissociative disorder. However, they anticipated DSM-5 by exploring the possibility of taking an etiological approach to classification and creating a new diagnostic category of stress disorders, to include acute and chronic forms of PTSD, adjustment disorders, and possibly other stress-related syndromes.

Nearly 20 years after Davidson and Foa's (1991) paper, Resick and Miller (2009) revisited the issue of the classification of PTSD, making the case for creating a new diagnostic category comprising PTSD and other stress disorders. They argued that exposure to trauma triggers a variety of negative emotions other than fear and anxiety—chief among them being guilt, shame, and anger—and that these other emotions play at least as important a role as fear and anxiety in the development and maintenance of PTSD. They further argued that PTSD is related to both internalizing and externalizing of psychopathology and thus does not fit cleanly with disorders in either spectrum. They concluded that PTSD should be placed in its own category based on an explicit diathesis-stress conceptualization, whereby trauma interacts with diverse vulnerabilities to create a wide array of posttraumatic phenotypes.

The SWG subsequently reached the same conclusion, after considering the evidence for PTSD as an anxiety disorder, a stress-related fear circuitry disorder, or internalizing or externalizing disorder (Friedman, Resick, Bryant, & Brewin, 2011b). The SWG went further, considering whether the dissociative disorders also belonged in the TRSD category, but concluded that this made less sense because trauma exposure does not always precede the onset of dissociation. In DSM-5, the TRSD chapter is placed in close proximity to anxiety disorders, obsessive-compulsive and related disorders, and dissociative disorders to signify the conceptual relatedness among all of these disorders.

In addition to establishing the appropriate classification of PTSD in DSM-5, a second crucial decision was whether to follow the DSM tradition and continue to conceptualize PTSD as a broad construct, or to conceptualize it much more narrowly and include as diagnostic criteria only a relatively few so-called core symptoms. Advocates of a narrow approach

(e.g., Brewin, 2013; Brewin, Lanius, Novac, Schnyder & Galea, 2009; Maercker et al., 2013; Spitzer et al. 2007) have argued that a reduced criterion set for PTSD would simplify diagnosis, facilitate differential diagnosis, reduce comorbidity and create more homogeneous groups for research, and focus assessment and treatment planning on aspects most likely in need of attention.

Ultimately, the SWG decided to retain the broad approach. In part, this was in keeping with the conservative nature of the DSM-5 revision process, which opposed the type of sweeping changes the narrow approach entailed. More importantly, though, the concern was that the narrow approach fails to provide sufficient coverage of PTSD. The rationale for a broad definition is that the diagnostic criteria should provide maximal coverage of the full range of symptoms seen in the typical clinical presentation of PTSD, even if some of the symptoms also occur in other disorders (Friedman, 2013a; Kilpatrick, 2013). In a clinical context, a narrow approach might streamline some aspects of initial assessment, but would be inadequate for comprehensive clinical evaluation, which requires identification of all clinically significant problems, theory-driven evaluation of the functional relationships among the problems, and development of a detailed treatment plan addressing all high-priority targets for treatment. In a research context, the narrow approach might result in investigators overlooking important aspects of PTSD.

Following the rationale for a broad definition, not only were the PTSD criteria not abbreviated for DSM-5, they were actually expanded somewhat to reflect a fuller spectrum of posttraumatic reactions, including negative alterations in cognitions, emotions, externalizing behavior, and dissociation. This led to renewed concerns regarding the complexity of the PTSD symptom criteria, which permit a PTSD diagnosis to be met via thousands of possible symptom combinations (e.g., Rosen et al., 2010). This complexity potentially could increase heterogeneity in clinical presentations among cases of PTSD, although this is mitigated by the high degree of intercorrelation among PTSD symptoms within and across symptom clusters. However, it does not appear to affect reliability: In the DSM-5 field trials, PTSD was one of the most reliable of all diagnoses evaluated in adults (Regier et al., 2013). Thus, clinicians appear to be able to navigate the lengthy list of PTSD symptoms comfortably and arrive at consistent diagnostic decisions.

DSM-5 Criteria for PTSD

Criterion A

Criterion A, the stressor criterion, has been the most controversial PTSD criterion (for a full discussion, see Weathers & Keane, 2007). Accordingly, we provide an extended overview of the various issues to provide sufficient context for understanding the SWG's decisions and rationale regarding Criterion A. The most salient issue involves the question of how broadly or narrowly trauma should be defined. The definition of a trauma expanded after DSM-III, most notably with the introduction of the two-part Criterion A in DSM-IV, which required exposure to an event involving life threat or serious injury (A1), as well as a peritraumatic emotional response involving intense fear, helplessness, or horror (A2). Further, although the original DSM-III definition did not specify different types of exposure, it seems to imply that the event should be directly experienced. However, beginning with DSM-III-R, three types of exposure were identified, including directly experiencing the event, witnessing it, or learning about it happening to a loved one.

Following the publication of DSM-IV, critics expressed concern that the definition of a traumatic event had become too broad, making too many people eligible for a PTSD diagnosis based on exposure to relatively minor stressors or indirect exposure to major stressors, a problem labeled "conceptual bracket creep" by McNally (2003) and "criterion creep" by Rosen (2004). Consistent with this concern, in several respects, the DSM-IV Criterion A language and accompanying text represented a broader definition of trauma relative to DSM-III and, to a lesser extent, DSM-III-R. These include (a) indirect exposure (i.e., learning about the event); (b) vague phrases such as "confronted with" and "threat to physical integrity;" and (c) new examples of qualifying stressors, such as "being diagnosed with a life-threatening illness;" "developmentally inappropriate sexual experiences without threatened or actual violence or injury;" "learning about the sudden, unexpected death of a family member or close friend;" and "learning that one's child has a life-threatening disease."

However, as Weathers and Keane (2007) noted, the DSM-IV Criterion A language and accompanying text also provided explicit safeguards against excessive broadening, including (a) an emphasis on life threat; (b) multiple repetitions of the descriptor "extreme" (e.g., "an extreme traumatic stressor;" "the stressor must be of an extreme [i.e., life-threatening] nature"); (c) an unambiguous directive that adjustment disorder is the appropriate diagnosis when the stressor is not extreme; and (d) most effectively, the conjunctive requirement that the event meet both A1 and A2. Nonetheless, there was sufficient complexity and ambiguity that even conscientious clinicians who tried to apply the safeguards were left perplexed and debating among themselves as to which events qualified as traumatic. Even worse, for those inclined to ignore the safeguards and exploit the ambiguity, there was ample opportunity for a selective interpretation and inappropriate application of Criterion A.

Regardless of the source or extent of the problem, as McNally (2004, 2009) has noted, excessive broadening of

the definition of trauma has a number of potentially negative effects, including (a) increasing heterogeneity of trauma-exposed samples, making it more difficult to identify psychobiological mechanisms; (b) misuse of the diagnosis in forensic contexts; and (c) pathologizing normal reactions to stressful events. McNally (2009) made two recommendations for Criterion A in DSM-5. The first recommendation, also suggested by Spitzer et al. (2007), was to eliminate indirect exposure altogether and allow only direct experience of the event or witnessing it in person. Clearly, by excluding one of three modes of exposure, this would result in a more restrictive definition of trauma. The second recommendation was to eliminate A2 because "In the language of behaviorism it confounds the stimulus with the response. In the language of medicine, it confounds the host with the pathogen" (p. 598).

Based on his second recommendation, it appears that McNally objects to the subjectivity of A2 on conceptual grounds, not because removing it would create a narrower definition of trauma. Others, though, seem to believe that A2 contributes to an excessively broad definition of trauma, and that removing it would reduce criterion creep (e.g., Rosen et al., 2010). However, A2 was added specifically to constrain the definition of trauma. That is, according to DSM-IV Criterion A, only events that both meet A1 (i.e., high-magnitude stressors involving life-threat or serious injury) and also evoke an intense emotional response are considered traumas. Because this two-part definition is a conjunctive criterion, logically it can only reduce the number of events considered traumatic, and in fact has been shown to do so robustly (e.g., Breslau & Kessler, 2001). Therefore, all other things being equal, retaining A2 creates a narrower definition of trauma, and eliminating it creates a broader one.

In contrast to calls for tightening the Criterion A definition of trauma, some investigators have gone the opposite direction and proposed eliminating Criterion A altogether, which amounts to adopting the broadest definition possible. For example, Brewin et al. (2009) provided a long list of arguments in favor of abolishing Criterion A. First, they argued that it is too difficult to come up with an adequate definition of trauma. Setting this aside, they then argued that specifying a precipitating stressor is undesirable anyway because it (a) gives too much etiological weight to the stressor relative to vulnerability factors; (b) makes it impossible to study which type of events lead to PTSD symptoms; and (c) emphasizes PTSD as the primary outcome of trauma exposure, taking the focus off other disorders that might develop. They further argued that abolishing Criterion A is desirable because (d) hardly anyone develops PTSD in the absence of an extreme stressor; (e) it would make PTSD like most other disorders which are diagnosed based solely on symptoms; (f) it would remove a major source of controversy regarding the PTSD diagnosis; and (g) otherwise, the treatment needs of individuals who develop PTSD symptoms following exposure to non-Criterion A events will be ignored. They propose instead that the PTSD diagnosis be based only on assessment of a core set of six symptoms (two reexperiencing, two avoidance, and two hyperarousal symptoms) lasting at least a month and resulting in clinically significant distress or functional impairment.

These are all vital concerns, and serve as important caveats alerting clinicians and investigators to the ambiguity and potential untoward consequences involved in defining trauma and PTSD. However, they are surmountable, and collectively do not justify abolishing Criterion A. In brief rejoinder to these concerns, we argue that: (a) Just because trauma is difficult to define does not mean it is not worth doing—most diagnostic criteria for mental disorders are at least somewhat ambiguous and require clinical judgment to implement appropriately; (b) Criterion A in no way prevents scientific investigation of questions such as what vulnerability factors contribute to PTSD, which types of events lead to PTSD, or what other outcomes besides PTSD result from trauma exposure—in fact, the literature is full of such studies; (c) some people do report PTSD symptoms to apparently minor stressors; (d) decisions regarding the diagnostic criteria for PTSD should be based on what is scientifically justified for PTSD and not what is appropriate for other disorders; (e) controversies are best resolved through accumulation of scientific evidence, not out of fear of controversy; and (f) not having a PTSD diagnosis does not somehow render individuals with clinically significant problems ineligible for treatment. Regarding the last point, in fact it is possible that being misdiagnosed with PTSD may result in poor treatment outcome. As McNally (2009) pointed out: "…if vulnerability factors, not the memory of the stressor, are responsible for the person's suffering, then imaginal exposure targeting the subtraumatic memory may fail" (p. 598).

The concerns of Brewin et al. (2009) notwithstanding, Criterion A serves a number of valuable functions. First, it provides a conceptual basis for the diagnosis and focal point for symptom inquiry. If any stressor would suffice—even trivial events, as long as the requisite symptoms were reported—then why continue to refer to PTSD as posttraumatic? Further, unless a stressor of some kind was specified, even if only as vaguely as the first part of the DSM-III definition ("a recognizable stressor"), why would PTSD even be called a stress disorder at all? If the stressor has no etiological significance, and not even a temporal relationship with the onset of symptoms, it is difficult to see in what sense the diagnosis would even be meaningful.

Clearly, Brewin et al. (2009) do not intend this strongest form of the argument. As is apparent in the reexperiencing symptoms of their proposed PTSD criteria, they explicitly acknowledge the role of an identifiable stressor, specifically "an event now perceived as having severely threatened someone's physical or psychological well-being" that is

reexperienced in dreams or "daytime images" with "marked fear or horror" (p. 370). Thus, in effect their proposed criteria do not actually eliminate Criterion A, but instead fold it into the reexperiencing symptoms. In essence, their criteria imply a two-part stressor criterion akin to DSM-IV Criterion A, although with substantially greater emphasis on subjective appraisal of the event, to wit: (1) The person has been exposed to an event that is now perceived as having severely threatened his/her physical or psychological well-being; and (2) The event is associated with current feelings of fear or horror. It is not clear whose perception is being considered in this definition, but presumably the person's rather than the clinician's. In any case, without the potentially more objective (or at least consensus) standard of life threat, this constitutes a very broad definition of "A1," particularly with respect to the ambiguous and expansive "psychological well-being." In contrast, "A2" is even more restrictive than DSM-IV A2 and thus narrows the definition of qualifying events. Thus, the proposed criteria of Brewin et al. (2009) abolishes Criterion A in a literal sense, but retains it in a functional sense.

Second, Criterion A serves a valuable gatekeeping function. It may be that relatively few people meet all other criteria for a PTSD diagnosis—including all requisite clinically significant symptoms and functional impairment—without being exposed to an extreme stressor. But even in carefully designed studies with rigorous assessment methods, some do (e.g., Kilpatrick, Resnick & Acierno, 2009, 1998; also see Weathers & Keane, 2007). Assuming the assessments are accurate and these individuals have the symptoms but not the trauma exposure, then they likely are characterized by a preponderance of other vulnerability factors, do not resemble other PTSD cases for whom the trauma was a more important etiological factor, and thus detrimentally increase heterogeneity of the PTSD diagnosis.

Further, as critics of PTSD have often pointed out (e.g., McNally, 2003, 2009; Rosen & Lilienfeld, 2008) there are numerous examples in the literature of individuals reporting high levels of PTSD symptoms following exposure to non-Criterion A events such as divorce, financial problems, exposure to sexual jokes in the workplace, and wisdom tooth extraction. Many of these findings are implausible; they are likely the result of excessive symptom endorsement on PTSD questionnaires and would not withstand rigorous clinical assessment. But to the extent that any of them did, that too would increase the heterogeneity of PTSD cases. Finally, abolishing Criterion A and shifting the diagnostic burden to assessment of symptoms and functional impairment—which Rosen (2004) refers to as the "changing of the guard"—has its own set of problems. Even with rigorous assessment, i.e., a structured diagnostic interview administered by an expert clinician, evaluation of PTSD is based primarily, if not exclusively, on the individual's self-report, which is subjective and difficult to verify objectively.

Ultimately, the SWG decided to retain Criterion A, but made several important changes, most notably eliminating A2 and clarifying the concept of indirect exposure, tightening it in some respects and expanding it in others. A2 was eliminated for a variety of reasons (Friedman, 2013a; Friedman, Resick, Bryant, & Brewin, 2011a). First, requiring A2 reduces prevalence of trauma exposure, but has little impact on prevalence of PTSD because most A1 events that result in PTSD also meet A2 (e.g., Breslau & Kessler, 2001; Kilpatrick et al., 2009; Schnurr, Spiro, Vielhauer, Findler & Hamblen, 2002). Second, some occupations at high risk for exposure to A1 events (military and emergency response personnel) are trained to minimize peritraumatic emotional responding and so either do not have A2 responses, or have them long after the event, or show a response bias against reporting them. Third, there are concerns about the reliability of retrospective recall of emotional responses during the event. Finally, A2 was seen as an inappropriate component of the stressor criterion on conceptual grounds, owing to McNally's argument and recommendation regarding A2 cited above.

In addition, the SWG made a number of changes to A1 (now just A). First, in specifying the nature of a traumatic event, the essential elements "exposure to actual or threatened death or serious injury" were retained, and the ambiguous "threat to physical integrity" was replaced with the more explicit "sexual violence." Second, four modes of exposure were identified. Experiencing and witnessing were both retained, although somewhat more emphatically as "directly experiencing" and "witnessing, in person." In addition, two forms of indirect exposure were included. One is the ambiguous "confronted with" from DSM-IV, which was replaced with "learning that the traumatic event(s) occurred to a close family member or close friend." Importantly, this form of indirect exposure was substantially restricted by a new requirement that events involving the actual or threatened death of a loved one must have been violent or accidental. The other was newly recognized for DSM-5 and involves "repeated or extreme exposure to aversive details of the traumatic event(s)" as might happen for first responders or emergency personnel. This potentially involves much more direct exposure than just learning about the event, and could even be considered witnessing the event, or at least the proximal aftermath. This form of exposure was restricted by a requirement that it not be through visual media unless it is work-related.

Third, in the accompanying text, the list of examples of qualifying events was elaborated somewhat—although arguably not actually expanded—particularly with respect to various forms of physical assault and sexual violence. In addition, two important restrictions in the text explicitly exclude certain events from being considered traumas. One notes that not all life-threatening illnesses or medical conditions are traumas, and limits qualifying events to those that are sudden and catastrophic. This is in contrast to DSM-IV, which included

being diagnosed with a life-threatening illness as a qualifying event. The other repeats the requirement that learning about the death of a loved one only qualifies if it was violent or accidental, but spells this out further by noting specifically that death due to natural causes does not qualify.

Fourth, throughout the DSM-5 PTSD criteria the traumatic stressor is consistently referred to in the plural, i.e., event(s). The plural was used once in DSM-IV, so this approach is not completely novel; nonetheless, it is a subtle but important change that highlights the facts that (a) the index trauma used as the basis for symptom inquiry may consist of multiple closely related events (e.g., combat, sexual abuse); (b) people often experience multiple, unrelated traumatic events over the lifespan; and (c) the effects of trauma can be cumulative, and thus the PTSD clinical picture at a given point in time may comprise symptoms that are attributable to multiple, distinct events. Kilpatrick et al. (2013) referred to this latter phenomenon as composite PTSD.

Last, although not a change to Criterion A per se, the centrality of the functional link between Criterion A and the symptom criteria was highlighted with the addition of the phrases "beginning after the traumatic event(s) occurred" (for the reexperiencing and avoidance symptoms) and "beginning or worsening after the traumatic event(s) occurred" (for the remaining symptoms). The first of these phrases is equivalent to the DSM-III-R/DSM-IV version "not present before the trauma." The second, however, distinguishes between symptom onset and symptom exacerbation. This is crucial, given that most of the symptoms it applies to are not inherently linked to the index trauma (as are reexperiencing and avoidance), and thus, unless an explicit functional link to the index event is established, could be attributable to a comorbid disorder such as depression, or even to PTSD symptoms caused by an earlier trauma. The significance of this second phrase, then, is that it explicitly recognizes that symptoms do not have to have their onset following the index event; they may have existed at a lower level prior to the index event, as long they were exacerbated by the index event. This approach acknowledges that trauma happens to people who may already have symptoms, and that the impact of trauma is not limited just to the onset of symptoms.

Symptom Criteria

For DSM-5, several important changes were made to the PTSD symptom criteria. First, the DSM-IV avoidance and numbing symptom cluster (Criterion C) was split into two clusters, avoidance (Criterion C) and negative alterations in cognitions and mood (Criterion D). Second, three new items were added, including blame of self or other and negative emotional state to the cognitions and mood cluster, and reckless or self-destructive behavior to the hyperarousal cluster (Criterion E). Third, a number of symptom criteria were

revised—some only slightly to improve clarity, but others much more substantially to reflect a fundamental reconceptualization of the corresponding symptoms.

The decision to split avoidance and numbing into separate clusters was based on strong empirical evidence from an extensive confirmatory factor analytic (CFA) literature (for reviews, see Elhai & Palmieri, 2011, and Yufik & Simms, 2010). Apart from the three new symptoms, DSM-5's implicit four-factor structure (reexperiencing, avoidance, negative alterations in cognitions and mood, hyperarousal) is the same as the four-factor numbing model (King, Leskin, King & Weathers, 1998), the first model to verify the distinction between avoidance and numbing. However, all three leading CFA models of PTSD—the numbing model, the four-factor dysphoria model (Simms, Watson & Doebbeling, 2002), and the five-factor dysphoric arousal model (Elhai et al., 2011)—make this distinction, although they differ in how they group the numbing and hyperarousal symptoms.

Criterion B: Intrusion

The reexperiencing symptoms have been among the most stable symptoms across the various versions of PTSD. Intrusive recollections, nightmares and flashbacks were the three original reexperiencing symptoms in DSM-III, and DSM-III D6—"intensification of symptoms by exposure to events that symbolize or resemble the event"—contained the core of the other two reexperiencing symptoms, cued distress and cued physiological arousal. These were added explicitly in DSM-III-R, although cued physiological arousal was classified as a hyperarousal symptom, and then finally moved to its current position in DSM-IV. For DSM-5, all five DSM-IV reexperiencing symptoms were retained, with a few revisions, and are now referred to as "intrusion symptoms" rather than reexperiencing, hearkening back to Horowitz's (1976) seminal model of stress response syndromes that provided the foundation for the original DSM-III PTSD criteria.

The most significant revision involves B1, which previously was phrased as "recurrent and intrusive distressing recollections of the event," but was reworded as "recurrent, involuntary, and intrusive distressing memories of the traumatic event(s)." The key changes—replacing "recollections" with "memories" and adding "involuntary"—were intended to distinguish this symptom from ruminations, which involve a more abstract cognitive appraisal process, may be at least somewhat voluntary, and may serve as an avoidance strategy. Several other minor revisions were made for this cluster. B2 (distressing dreams) now clarifies that nightmares only need to be related to the trauma and not necessarily a direct replaying of it. B3 (flashbacks) now emphasizes the dissociative nature of flashbacks and clarifies that dissociation occurs on a continuum. B4 (cued distress) was rephrased from "intense psychological distress" to "intense or prolonged

psychological distress," indicating that either a brief intense reaction or a more sustained but less intense reaction would satisfy this criterion. Last, B5 (cued physiological reactivity) was rephrased from "physiological reactivity" to "marked physiological reactions," indicating a higher threshold for clinical significance.

Criterion C: Avoidance

As discussed earlier, the avoidance symptoms were separated from emotional numbing and placed in their own symptom cluster. These two symptoms, C1 and C2, are also among the most stable symptoms across DSM versions. Together with cued distress and arousal, C1 and C2 constitute the phobic aspects of PTSD described by the two-factor behavioral model of PTSD, i.e., classically conditioned fear responses and negatively reinforced avoidance of conditioned stimuli (Keane, Fairbank, Caddell, Zimering & Bender, 1985; Foa, Skeketee & Rothbaum, 1989). Avoidance of trauma-related activities (now C2) appeared in DSM-III, and was expanded to activities and situations in DSM-III-R, whereas avoidance of trauma-related thoughts and feelings (now C1) was added in DSM-III-R. Both were carried over into DSM-IV, although the previous clear distinction between avoidance of internal versus external cues was muddled with the unfortunate simultaneous expansion of "thoughts and feelings" to "thoughts, feelings, and conversations" and "activities or situations" to "activities, places, or people." The overlap between "conversations" in C1 and "people" in C2 created considerable confusion for respondents and clinicians alike, introducing measurement error and inflating the overlap between the two symptoms.

This problem has been rectified in DSM-5 by placing conversations and people in C2 with other external reminders. In addition, echoing the new emphasis on memories in B1, both C1 and C2 now specify that avoidance centers on "distressing memories, thoughts, or feelings." Further, the addition of "distressing" in this phrase makes explicit the emotion regulation function of effortful avoidance, i.e., that these are conscious strategies to reduce distress, and are maintained through negative reinforcement. The most important change regarding this symptom cluster, though, is that an individual must have at least one avoidance symptom to meet full PTSD diagnostic criteria. That was not the case in DSM-IV, where an individual with no avoidance symptoms could still meet full diagnostic criteria by having three numbing symptoms.

Criterion D: Negative alterations in cognitions and mood

This new cluster, created when avoidance was split off from numbing, is the most extensively revised of the four DSM-5 clusters. Only three of the seven symptoms in this cluster are

carried over relatively intact from DSM-IV (D1—amnesia, D5—diminished interest, and D6—detachment or estrangement). The remaining four include two new symptoms (D3—distorted cognitions leading to blame of self or other and D4—negative emotional state); one substantially broadened symptom (D2—exaggerated negative beliefs about self, others or world, which is an expanded version of DSM-IV foreshortened future); and one substantially narrowed symptom (D7—inability to experience positive emotions, which is a pared down version of the more general DSM-IV restricted range of affect, which originated in DSM-III as constricted affect).

The latter two symptoms are particularly noteworthy. First, foreshortened future was a vague and puzzling criterion that was not well-understood by respondents or clinicians, did not fit the experience of many trauma survivors, and was often interpreted idiosyncratically, thereby increasing measurement error and lowering reliability. Although the revised version in DSM-5 D2 is greatly expanded, it is more conceptually satisfying because it articulates the more general phenomenon of posttraumatic alterations in beliefs, thereby illuminating the underlying intent of the original foreshortened future criterion.

Second, DSM-5 D7—inability to experience positive emotions—is in some sense a marked departure from the previous version of this symptom, which designated restricted range of affect in general, and thus applied to both positive and negative emotions. On balance, though, this change is relatively modest: Starting with DSM-III-R this symptom emphasized reduced ability to experience positive emotions specifically, e.g., "loving feelings" in the criterion language for DSM-IV C6 and "intimacy, tenderness, and sexuality" in the DSM-IV accompanying text. The rationale for this change is that trauma survivors are not emotionally numb; they experience emotions, but primarily negative emotions—it is the positive emotions that are restricted (Litz & Gray, 2002). Nonetheless, there is no longer a way to represent a respondent who has restricted affect across the full range of emotions. That is, if someone were emotionally shut down to the point of no longer feeling even negative emotions, there would no way to capture that experience with the DSM-5 Criterion D symptoms.

In keeping with these various revisions and additions, this cluster was re-conceptualized from emotional numbing to the broader and more apt negative alterations in cognitions and mood. Negative alterations in cognitions are represented most directly by D2 (exaggerated negative beliefs about self, others or world) and D3 (distorted cognitions leading to blame of self or other). These symptoms are consonant with cognitive models of response to trauma and represent high-priority targets for cognitive-behavioral treatments of PTSD, e.g., "stuck points" in cognitive processing therapy (Resick & Schnicke, 1992). Further, all but one of the remaining symptoms in this cluster speak to the profound emotional disruption that can develop following trauma exposure, including an

excess of negative emotions (fear, horror, anger, guilt, or shame in D4), loss of interest in usual activities (D5), sense of detachment or estrangement from others (D6), and inability to experience positive emotions (D7).

The remaining symptom in this cluster, D1 (amnesia), is problematic in several respects. Originally appearing as non-specific memory impairment in DSM-III, it was recast in DSM-III-R as psychogenic amnesia and conceptualized as a form of unconscious avoidance. As such, it does not fit well with conscious, effortful avoidance in DSM-5 Criterion C. Nor does it fit particularly well with the alterations of appraisals and beliefs in the re-conceptualized Criterion D. In addition, it is linked with the conceptual ambiguity and controversy surrounding the psychoanalytic concept of repression and the divisive debate regarding repressed memories of childhood sexual abuse (McNally, 2003). Further, as McNally (2003, 2009) notes, it is difficult to determine whether inability to recall an aspect of the trauma is due to retrieval failure or encoding failure, i.e., whether the information is in memory but cannot be accessed, or whether it was never processed and stored in memory to begin with. And even if it were due to retrieval failure, it is difficult to determine whether the retrieval failure is due to repression (motivated forgetting) or normal forgetting. Finally, there is no consensus and little guidance as to what constitutes an "important aspect" of the event. Presumably, this means something like "a salient, traumatic part of the event that the individual reasonably would be expected to recall," and thus typically would not include relatively minor, peripheral information such as names, dates, or precise chronology.

Despite all these concerns, some trauma survivors do report the phenomenon of psychogenic amnesia, stating that they are aware there is some part of the trauma memory they have pushed away and do not wish to access because it would be too painful to recall. Because of this, amnesia was retained for DSM-5. However, two revisions were made to improve conceptual clarity and facilitate assessment. First, there is increased emphasis on the dissociative nature of the amnesia. Second, to address at least some sources of encoding failure, D1 includes specific rule-outs, i.e., that the amnesia is not attributable to head injury or intoxication.

Criterion E: Arousal and reactivity

This symptom cluster is largely unchanged. The two notable revisions are the addition of one new item, E2 (reckless or self-destructive behavior), and a shift in emphasis for the irritability and anger criterion from both emotional and behavioral aspects to an exclusive focus on the overt behavioral expression, especially as evidenced by verbal or physical aggression. The emotional component of anger is now covered in D4 (negative emotional state). The other four criteria were preserved essentially intact, including hypervigilance, exaggerated startle problems, concentration, and sleep disturbance.

Other Criteria

Two of the remaining criteria also are largely unchanged, including the requirement that symptoms have persisted for at least 1 month, and that symptoms must be associated with clinically significant distress or functional impairment. Several other criteria or features were revised, added, or deleted. First, the usual DSM criterion that symptoms are not due to substance use or other medical condition was added, and the acute vs. chronic specifier was eliminated. Second, "delayed onset" was retained and relabeled "delayed expression" and now indicates that some symptoms may start immediately, which is more realistic and clinically meaningful.

Third, a new dissociative subtype was added, to be specified when the symptom picture involves prominent depersonalization or derealization. The SWG decided to include this subtype based on evidence indicating that those with dissociative symptoms (a) emerge as a distinctive group in latent class and taxometric analyses, (b) show distinctive neurobiological response patterns, (c) have more severe and chronic symptoms, and (d) show differential response to treatment (Lanius, Brand, Vermetten, Frewen & Spiegel, 2012; Friedman, 2013a). Further, the addition of the dissociative subtype, along with revisions to Criteria D and E, provides improved coverage of complex PTSD, and serves as an interim solution for addressing this hypothesized disorder until sufficient research can determine the merit of including it as a distinct diagnostic entity in future editions of DSM (Friedman, 2013a).

Last, whereas DSM-IV had notes to indicate differences in symptom expression in children for memories, dreams, and flashbacks, in DSM-5 a separate, complete set of criteria was added for children 6 years old and younger. Apart from modifications to reflect age-typical clinical features, these criteria generally follow the primary criteria for adults, adolescents, and children over six. The main differences for preschool children are that avoidance and numbing are not separated into distinct clusters, and three of the seven symptoms representing negative alterations in cognition and mood were excluded. Specifically, the excluded symptoms are those that require a high degree of introspection and do not have overt behavioral referents, i.e., amnesia, exaggerated negative beliefs, and distorted cognitions leading to blame. It is expected that revision of these criteria will increase the surprisingly low prevalence of PTSD observed among preschool children assessed with DSM-IV criteria (Friedman, 2013a).

National Center for PTSD Assessment Instruments

The revision of the PTSD criteria for DSM-5 necessitated an analogous revision of existing DSM-correspondent measures of trauma and PTSD. In this section, we provide a brief

overview of the updated versions of the three main measures developed at the National Center for PTSD: the Life Events Checklist (LEC), PTSD Checklist (PCL), and Clinician-Administered PTSD Scale (CAPS). Revision of these measures began as soon as the DSM-5 draft criteria were made available in 2010. The main goals were to update the measures to accurately reflect DSM-5 criteria, and to incorporate suggestions for improvement that had accumulated over the 20 years since the measures were last revised following the release of DSM-IV.

Life Events Checklist

The LEC is a 17-item self-report measure designed to screen for exposure to Criterion A events. It consists of a list of 17 categories of potentially traumatic events, including 16 specific categories (e.g., natural disasters, transportation accidents, sexual assault) and one catch-all category labeled "any other very stressful event or experience." For each event category, respondents indicate their level of exposure, i.e., whether it happened to them directly, they witnessed it, they learned about it happening to someone else, they are not sure, or it does not apply to them. Although the LEC has been validated for use as a stand-alone trauma measure (Gray, Litz, Hsu & Lombardo, 2004), it was originally intended as a brief trauma screen to identify an index event for symptom inquiry on the CAPS.

Only two changes were required for the DSM-5 version of the LEC (LEC-5). First, because of the DSM-5 requirement that learning about the sudden, unexpected death of a loved one only qualifies as a Criterion A event if it was accidental or violent, the category "sudden, unexpected death of someone close to you" was revised to "sudden accidental death." This, in conjunction with the category "sudden violent death (for example, homicide, suicide)," which was carried over from the previous LEC, was seen as providing sufficient coverage of the types of death that would qualify for Criterion A, while excluding deaths due to natural causes. Second, because of the addition in DSM-5 of a new form of indirect exposure (exposure to aversive details of the trauma), with its tie-in to certain occupational roles, a new response category was added to the LEC-5, namely, being exposed to the event as part of one's job.

PTSD Checklist

The PCL is a 17-item DSM-correspondent self-report measure of PTSD. Developed in 1990, the PCL has become one of the most widely used, extensively validated PTSD questionnaires, and is the basis for much of the CFA literature for PTSD (for reviews, see McDonald & Calhoun, 2010; Wilkins, Lang & Norman, 2011). There were three versions of the previous PCL. The first two, the military (PCL-M) and civilian

(PCL-C) versions, were intended to correspond with the military and civilian versions of the Mississippi Scale (Keane, Caddell & Taylor, 1988), and refer generally to either a stressful military experience or a stressful experience in the past. The third, the specific version (PCL-S), directs respondents to link symptoms to a specific event, referred to as the stressful experience. Although the three versions are otherwise identical, the fact that there are three versions has created some confusion in the literature and raised questions regarding the comparability of findings based on different versions.

Several changes were made for the DSM-5 version of the PCL (PCL-5). First, items were added to assess the three new symptoms, making the PCL-5 a 20-item measure, and other items were revised to reflect other reworded symptoms. Second, numerical anchors for the response scale were changed from 1–5 to 0–4. Although this will require users to become accustomed to new scoring ranges and cutoffs, it makes no substantive difference in psychometric analyses, and is advantageous in that the lowest possible score is now a more intuitive 0 rather than 17. Third, only one version of the symptom items was created, which, like the PCL-S, refers simply to the stressful experience. There are no PCL-5 versions corresponding to the PCL-M or PCL-S. Nonetheless, there are three versions of the PCL-5, which vary only with respect to the assessment of Criterion A. One version does not assess Criterion A at all, one includes a relatively brief Criterion A section, and the remaining one includes the LEC-5 and a somewhat more detailed Criterion A section.

As with the previous PCL, the PCL-5 is intended primarily as a measure of PTSD symptom severity. Severity scores can be calculated for each symptom cluster, by summing item scores for symptoms within a given cluster; or for the entire disorder, by summing all 20 items. The PCL-5 also can be scored to yield a provisional PTSD diagnosis by considering items rated as 2=moderately or higher as a symptom endorsed, and then following the DSM-5 diagnostic rule (1 B, 1 C, 2 D, and 2 E symptoms). Further, PTSD diagnostic status may be inferred by using validated cutoffs for PCL-5 total score. Cutoffs have not yet been established for the PCL-5, but several studies are currently underway. The PCL-5 likely will demonstrate many of the desirable characteristics of the previous PCL, and the described changes should be notable improvements. The PCL-5 also carries over some of the same limitations, including not determining that symptoms are attributable to one or more Criterion A events, and not assessing functional impairment. These would be useful additions, but it was felt they would be too cumbersome for most applications.

Clinician-Administered PTSD Scale

The CAPS (Blake et al., 1995) is a DSM-correspondent structured diagnostic interview for PTSD. Developed in

1989, the CAPS has been extensively validated and is the most widely accepted criterion measure for PTSD (for an overview of the history of the CAPS and review of the early research, see Weathers, Keane & Davidson, 2001). A number of changes were made for the DSM-5 version of the CAPS (CAPS-5). Goals for the revision were to (a) ensure correspondence with DSM-5, (b) retain the distinctive features of the CAPS and maintain backward compatibility, and (c) streamline administration and scoring, making the CAPS-5 more efficient and easier to learn.

As with the PCL-5, items were added to assess the new DSM-5 symptom criteria. The previous CAPS already included items measuring depersonalization and derealization, so these were retained to assess the new dissociative subtype. In addition, prompts were revised to accurately reflect rewording of DSM-5 symptoms, as well as to simplify the language and make the prompts sound more natural. Further, the visual layout and sequence of prompts was improved. On the previous CAPS, prompts were arranged in a left-to-right format, with frequency prompts on the left and intensity prompts on the right. This often meant some back and forth between the two sets of prompts, requiring a high degree of familiarity with the content and layout to achieve efficient administration. The new layout is top-to-bottom; prompts flow smoothly through a standard sequence, with all aspects of intensity assessed first, followed by frequency, and then trauma-related ratings for those symptoms that require it.

Scoring procedures were also modified for the CAPS-5. On previous versions, separate five-point (0–4) ratings were made for symptom frequency and intensity. These were available for use as separate metrics, but for most applications were combined into a single rating, either by summing them to create a nine-point (0–8) symptom severity score, or by using various scoring rules for creating a dichotomous (present/absent) symptom score. The most commonly used scoring rule was the F1/I2 rule, whereby a symptom was considered present if the corresponding CAPS item was rated as having a frequency of 1 or higher and an intensity of 2 or higher. On the CAPS-5, interim ratings of frequency and intensity are still made, but they are combined—using predetermined thresholds—before making a single 0–4 symptom severity rating. Thresholds are based on the clinician-rated scoring rules developed for the CAPS in the mid-1990s (i.e., CR60 and CR75; see Weathers, Ruscio & Keane, 1999). As with the PCL-5, the scoring changes for the CAPS-5 will require users to become accustomed to new scoring ranges, but overall the changes should simplify assessment of symptom severity and PTSD diagnostic status.

In addition, several features on the CAPS-5 were carried over from previous versions. First, as noted above the LEC has been updated and makes a useful companion for the CAPS-5 Criterion A assessment prompts. Second, the trauma-related inquiry and rating feature—which evaluates

the functional link between symptoms and the index trauma—was retained, although the standard prompt was revised to include the phrase "start or get worse" to match the DSM-5 requirement that symptoms began or got worse after the event. Third, items assessing distress and functional impairment were retained, as were items assessing response validity, overall severity, and improvement since a previous assessment. Three versions of the CAPS-5 are available, including past month, worst month/past month, and past week versions. Psychometric studies of the CAPS-5 are currently underway; initial experience suggests that it has strong interrater reliability and is generally more user-friendly and efficient than previous versions.

Implications and Challenges for Assessment

Since its inception in DSM-III, PTSD has posed a number of significant challenges for developing and implementing psychometrically sound assessment methods. Given the substantial continuity between DSM-5 criteria and previous versions of PTSD, many of these challenges will persist. The overall impact of the various DSM-5 revisions remains to be seen—some clearly facilitate assessment, whereas others appear to create additional challenges. In this section, we discuss a number of implications of the DSM-5 criteria for assessment of trauma exposure and PTSD.

Criterion A

As discussed earlier, Criterion A in DSM-5 provides a narrower definition of trauma in some respects (e.g., for indirect exposure, death of a loved one must be violent or accidental; exposure through media does not qualify unless work-related; life-threatening illnesses or medical conditions must be sudden and catastrophic), and a broader definition in other respects (e.g., elimination of A2, addition of new form of indirect exposure). Initial empirical reports indicate that DSM-5 Criterion A is somewhat more restrictive than the DSM-IV version. For example, in a sample of 185 participants recruited specifically for studies on trauma and health, Calhoun et al. (2012) found that 95 % met both DSM-IV A1 and A2, 7 % of whom did not meet DSM-5 Criterion A, primarily because of death of a loved one not due to violence or an accident. This suggests that tightening indirect exposure lowers Criterion A prevalence. In contrast, only one participant met DSM-5 but not DSM-IV Criterion A due to not meeting A2, which suggests that removing A2 does not significantly increase Criterion A prevalence.

Similarly, in an online survey with a large national sample of adults (N=2,953), Kilpatrick et al. (2013) found that for those who met DSM-IV but not DSM-5 PTSD criteria, the

main reason (60 %) was that their index event did not meet DSM-5 Criterion A, primarily because it involved indirect exposure to nonviolent death of a loved one. This suggests that tightening indirect exposure lowers PTSD prevalence. In contrast, for those who met DSM-5 but not DSM-IV PTSD criteria, only 2 % failed to meet DSM-IV criteria because they did not meet A2. This suggests that removing A2 creates a slightly less restrictive definition of Criterion A, but overall has only a minor impact on PTSD prevalence.

The relative merits of a broad versus narrow definition no doubt will continue to be debated and to affect assessment practice, particularly with respect to the content validity of trauma measures and whether they provide adequate coverage of qualifying events. With respect to reliability, though, DSM-5 should help. First, two important sources of ambiguity in DSM-IV were clarified, namely, the phrases "confronted with" and "threat to physical integrity." The former was replaced with reasonably explicit definitions of two forms of indirect exposure, and the latter was replaced with the more explicit "sexual violence." Second, the elimination of A2 reduces ambiguity further, obviating the need to struggle with questions such as what counts as peritraumatic, what counts as intense, and should emotions other than fear, helplessness, and horror be considered. Some gray areas remain: Stressor categories such as developmentally inappropriate sexual experiences and life-threatening illnesses, for example, defy crisp definitions and idiosyncratic interpretation may increase measurement error. On balance, though, DSM-5 Criterion A is more explicit than the DSM-IV version, which should enhance reliability in assessing trauma exposure.

Symptom Criteria

With respect to the symptom criteria, DSM-5 mitigates some of the problems with previous versions, but also introduces new sources of complexity and ambiguity. In general, the Criterion B (intrusion) symptoms were already relatively straightforward to assess, but the DSM-5 revisions should yield incremental improvement in that they highlight key conceptual aspects of individual symptoms and provide clearer definitional boundaries. Relabeling this cluster as intrusions emphasizes that these symptoms are unbidden and unwelcome; this is most relevant for B1 (memories) because it helps distinguish specific trauma memories from rumination. B2 (nightmares) arguably is defined more broadly (in that it allows that either the content or the affect of the dream be related to the trauma), but also more explicitly, which should improve reliability.

B3 (flashbacks) is clearer and more conceptually focused, emphasizing the dissociative nature of this symptom (i.e., that it involves a qualitatively distinct altered state of consciousness) and noting that dissociation occurs on a continuum.

These changes should help clinicians assess flashbacks more accurately. However, this is a low prevalence symptom, and thus reliability may be diminished due to restriction of range. B4 and B5 are largely unchanged from DSM-IV. They are straightforward and well-understood by clinicians and respondents and generally pose no problems for assessment. One potential problem is the addition of "prolonged" in B4 ("intense or prolonged distress"). This creates ambiguity because it seems to allow that this symptom could be met with mild but sustained arousal. Some clinicians might consider that the arousal needs to be at least clinically significant, and then qualified by duration. Others might interpret this as meaning that even mild arousal would qualify, as long as it were sustained. This also raises the question of how long the arousal would need to last to be considered prolonged.

The Criterion C symptoms (avoidance) also were already straightforward, and are even clearer now that the one troubling point of ambiguity has been resolved, i.e., the overlap between avoidance of conversations in DSM-IV C1 and avoidance of people in DSM-IV C2. In contrast, however, the Criterion D symptoms (negative alterations in cognitions and mood) present a number of challenges for assessment. First, for these symptoms and Criterion E symptoms, there is the additional task of establishing a functional link between each symptom and index event. This is not done on the PCL-5 or on most PTSD questionnaires and interviews, but is done on the CAPS-5 with the trauma-related inquiry and rating.

Second, the reworked foreshortened future, now D2 (exaggerated negative beliefs and expectations), as well as the new symptoms D3 (distorted cognitions leading to blame of self or other) and D4 (persistent negative emotional state) are complex criteria, with multiple components that can be expressed in a variety of idiosyncratic ways. As a result, they are very difficult to assess with a single item, as they are on the PCL-5 and likely to be on most brief PTSD questionnaires. They would be better assessed on structured interviews such as the CAPS-5 because the interviewer can break out each component and evaluate it separately. However, this would greatly expand the number of assessment targets and would quickly become unwieldy. Thus, these symptoms create an assessment dilemma, i.e., a choice between efficiency and comprehensive coverage of all aspects of the symptom. The most efficient approach is to inquire about all components as a list in a single prompt. The problem is that respondents tend to focus on the most salient component on a list, possibly because it is their most clinically significant problem, but also possibly because of unrelated factors such as primacy or recency effects. In any case, without follow-up on other components, the risk with the efficient approach is that clinically significant problems might get overlooked.

This dilemma carries over into scoring as well. If components are inquired about as a list, and a respondent focuses on and endorses only one component, is that enough to rate the
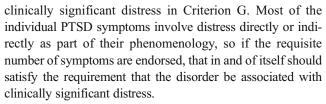
symptom? On the one hand, endorsing any one of the components satisfies the criterion, so for dichotomous (present/absent) ratings, that should suffice. On the other hand, endorsing two or more components might indicate a more severe problem. So for dimensional ratings, the efficient approach would not suffice because it would not routinely assess all components. But for dimensional ratings, there is an additional problem even with the comprehensive approach, and it involves the question of how many components need to be endorsed, and at what severity level, to justify a given item severity rating. If only one component is endorsed, but with maximal severity, should the symptom be rated at maximal severity, or do other components need to be endorsed as well? How does one component endorsed at maximal severity compare to two or more components endorsed at moderate severity?

Like the Criteria B and C symptoms, the Criterion E symptoms are straightforward and pose few problems for assessment. For E1 (irritable behavior and angry outbursts), it is important to note that this criterion now focuses on the overt behavioral components of anger, whereas the subjective emotional experience is subsumed under D4. E2 (reckless or self-destructive behavior) is broad and somewhat vague, even with the examples provided in the text (dangerous driving, excessive substance use, self-injurious or suicidal behavior). Some respondents may be reluctant to report such behaviors; others may report the behaviors but not consider them to be reckless or self-destructive. Such attributions require insight on the part of the respondent or clinical judgment on the part of the clinician.

Clinically Significant Distress and Impairment

Clinically significant distress and functional impairment (Criterion G) are vitally important targets for assessment, and fundamental aspects of the DSM approach to defining mental disorder. Although the issue of gatekeeping for the PTSD diagnosis has centered around Criterion A, Criterion G might do as much or more to create a restrictive definition of PTSD (Breslau & Alvarado, 2007), thereby helping distinguish pathological from non-pathological responses to trauma, decreasing heterogeneity of cases, and preventing misuse of the diagnosis in forensic contexts. Further, like Criterion A, and for the most part unlike the symptom criteria, Criterion G (at least the functional impairment component) is potentially objective and verifiable.

Criterion G combines function and distress in the same criterion, as did Criterion F in DSM-IV. This is somewhat unfortunate because having either one would satisfy the criterion, which means that individuals can meet full criteria for PTSD without having functional impairment. Further, as McNally (2009) pointed out, it is redundant to require

clinically significant distress in Criterion G. Most of the individual PTSD symptoms involve distress directly or indirectly as part of their phenomenology, so if the requisite number of symptoms are endorsed, that in and of itself should satisfy the requirement that the disorder be associated with clinically significant distress.

Clinicians and investigators should focus on Criterion G as an essential part of the PTSD diagnosis. The CAPS-5 assesses it, but only with two global items. Most self-report PTSD measures, including the PCL-5, do not assess distress and functional impairment at all. Thus, a comprehensive assessment requires the administration of additional measures to assess this criterion adequately. Currently, there are a number of interview and self-report instruments available for assessing functional impairment (Rodriguez, Holowka & Marx, 2012). Although the Global Assessment of Functioning (GAF) scale was dropped for DSM-5, DSM-5 does include the World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0) in its Emerging Measures and Models section (Section III) for further study. In selecting which instrument to use, however, clinicians should consider the relative strengths and limitations of each scale.

Response Bias

Ideally, an assessment of PTSD should include information obtained from multiple sources, including diagnostic interview, psychometric testing, review of military and medical records, and reports from collaterals. Such a multimethod approach may be helpful especially in addressing response bias concerns of all types. In situations where concerns about exaggeration or outright malingering for secondary gain purposes may be pertinent, clinicians should consider using measures with response validity indicators, such as the MMPI-2 and PAI, or specialized measures, such as the Structured Interview of Reported Symptoms -2 (SIRS-2; Rogers, Sewell & Gillard, 2010). However, clinicians should be mindful that not every individual seeking financial compensation or other benefits will necessarily require an assessment of malingering or other response biases. In instances where there are questions or concerns, clinicians should add such measures to their assessment battery. But in other cases, it may not be warranted.

Additionally, measures of exaggeration and malingering may be better for ruling out the possibility of faking bad rather than verifying it. For that, independent confirmation is required. Although DSM-IV provided a specific caution to rule out malingering in the assessment of PTSD whenever "financial remuneration, benefit eligibility, and forensic determinations play a role," DSM-5 no longer includes this caveat.

Moving Ahead

The DSM-5 PTSD criteria represent the most sweeping changes to the diagnosis since it was introduced in DSM-III. As dramatic as some of the changes are, though, they are grounded in a thorough review of the empirical literature and reflect clinically meaningful aspects of response to trauma that previously were either only implicit or absent altogether in previous versions of PTSD. As a result, the new criteria provide improved coverage of the diverse phenotypes of posttraumatic stress responses. Also, the criteria are more conceptually coherent in that they explicitly incorporate cognitive aspects long recognized as playing an important role in the development, maintenance, and treatment of posttraumatic symptomatology (e.g., Horowitz, 1976; Janoff-Bulman, 1992; Resick & Schnicke, 1992). Thus, although the DSM-5 criteria could be seen as a significant departure from previous versions, they actually represent the next phase in an ongoing process of elucidating the nature of PTSD through clinical observation, scientific hypothesis testing, and refinement of conceptual models. The extent of the DSM-5 changes notwithstanding, there is fundamental continuity in the conceptualization of PTSD and the core aspects of the diagnostic criteria from DSM-III through the new criteria.

Presently, in the transition to DSM-5, the most pressing question regarding continuity is the extent to which DSM-5 and DSM-IV PTSD criteria are comparable, e.g., in terms of identifying the same individuals as cases and demonstrating similar factor structures, associations with external correlates, and treatment responsivity. Early reports indicate a substantial degree of overlap. For example, in a survey study with a non-clinical sample of college students, Elhai et al. (2012) found that prevalence of trauma exposure was lower for DSM-5 (59 % vs. 67 %), but prevalence of PTSD was very close and slightly higher for DSM-5 (4.8 vs. 4.3 % with moderate impairment required). Using confirmatory factor analysis, they also found that the implicit four-factor DSM-5 model had adequate fit—although not quite as good as the best four-factor model for DSM-IV symptoms—and that the corresponding factors for DSM-5 and DSM-IV had similar correlations with a measure of depression.

Also, two other studies cited earlier in the discussion of Criterion A provide data relevant to PTSD diagnosis as well. First, Calhoun et al. (2012) administered the CAPS—plus four new items written in the CAPS format to assess the three new DSM-5 items and the heavily revised foreshortened future— to a mixed trauma sample with a high prevalence of DSM-IV PTSD (50 %). They found a kappa of .86 between DSM-IV diagnosis and DSM-5 diagnosis scored according to the final DSM-5 diagnostic rule (1 B, 1 C, 2 D, 2E symptoms). This is a very high level of diagnostic concordance and indicates that DSM-IV and DSM-5 yield nearly identical diagnostic decisions. It should be noted that both DSM-IV and DSM-5 diagnoses were based on a single administration of the CAPS

(with the four new DSM-5 items), and so overlapped on 16 symptom ratings. That, plus the 50 % prevalence, which is optimal for diagnostic utility studies, suggests that the concordance might be lower for separate administrations of a DSM-IV and DSM-5 measure, or in a population with a much lower or higher prevalence. Also, Calhoun et al. used the DSM-IV version of the CAPS, so results might differ for the CAPS-5, given its new rating format and wording changes to reflect the final DSM-5 criteria.

Second, Kilpatrick et al. (2013), in the National Stressful Events Survey, the most comprehensive analysis of DSM-5 criteria to date, estimated DSM-IV and DSM-5 PTSD prevalence for three time frames (lifetime, past 12 months, and past 6 months) and for symptoms attributable either to the same index event (same event PTSD) or to multiple events (composite event PTSD). DSM-5 criteria yielded a lower prevalence for all six estimates, although significantly lower for only two of them. Considering one of the estimates (lifetime, same event PTSD), Kilpatrick et al. found that of the 9.8 % who met DSM-IV criteria, 75 % also met DSM-5 criteria; and that of the 8.3 % who met DSM-5 criteria, 88 % also met DSM-IV criteria. For those who met DSM-IV but not DSM-5 criteria, the main reasons were that (a) as noted earlier, their event did not meet DSM-5 Criterion A (60 %), largely because it involved indirect exposure to nonviolent death of a loved one; or (b) they did not report active avoidance (i.e., at least one DSM-5 Criterion C symptom; 37 %). For those who met DSM-5 but not DSM-IV criteria, the main reasons were that (a) they did not meet DSM-IV Criterion C (avoidance/numbing; 55 %), or (b) they did not meet DSM-IV Criterion D (hyperarousal; 38 %). Overall, these results indicate substantial concordance between DSM-IV and DSM-5 diagnosis, with DSM-5 being somewhat more restrictive. As with the Calhoun et al. (2012) study, though, DSM-IV and DSM-5 diagnoses were based on overlapping symptom items, which may have contributed to the high degree of concordance.

Now that the final DSM-5 PTSD criteria are published and final versions of DSM-5-correspondent measures are available, the issue of continuity can be examined directly by administering DSM-IV and DSM-5 measures separately in the same study. Given the early findings, such studies are likely to show substantial diagnostic correspondence, with DSM-5 being somewhat more conservative, owing primarily to a more restrictive Criterion A and the added requirement of at least one effortful avoidance symptom. In addition, future studies will compare DSM-IV vs. DSM-5 criteria with respect to other aspects of construct validity, which will help explicate the DSM-5 version of PTSD and illuminate its conceptual and practical implications. They will also prove important for calibrating and integrating new findings with past research, and will be particularly informative for ongoing longitudinal studies.

Once the transition to DSM-5 is complete, however, comparisons with DSM-IV will become less important as the field

106

Psychol. Inj. and Law (2014) 7:93–107

moves ahead with the new definition of PTSD. This raises the question of when to switch—in the main, the answer is now. The DSM-5 criteria are now the official definition of PTSD, at least for countries that follow DSM-5, and should be utilized in all contexts going forward. Nonetheless, there are situations in which it may not be feasible to adopt the new criteria immediately. For example, ongoing longitudinal studies that began under DSM-IV criteria likely will need to maintain the original measures they began with for data analytic reasons. In such studies, if possible, it would be informative to add at least a DSM-5 questionnaire such as the PCL-5 so that results based on DSM-IV can be calibrated at least somewhat to DSM-5.

This concern also applies to some clinical scenarios, such as those involving a forensic outcome or compensation based on meeting DSM-IV PTSD criteria. Some individuals who met DSM-IV criteria might not meet DSM-5 criteria (25 % in Kilpatrick et al., 2013), which would leave them in jeopardy of losing whatever benefit they may have received as a result of their DSM-IV diagnosis. In such cases, one or more of the following options may be helpful to resolve the diagnostic discordance: (a) conduct a comprehensive, evidence-based assessment, drawing on multiple sources of information, including structured diagnostic interviews, self-report measures of PTSD, multiscale inventories such as the MMPI or PAI, collateral report, and record review; (b) obtain a consensus opinion, e.g., through a case conference format; and (c) carefully assess functional impairment and emphasize degree of impairment in justifying the final diagnostic decision.

Despite these difficulties during the transition from DSM-IV, the DSM-5 PTSD criteria provide a scientifically justified and much-needed update of the PTSD criteria. Overall, they represent a somewhat more conservative definition of PTSD, although they may not go far enough in that respect to satisfy the most ardent critics. They also clarify a number of ambiguities in previous versions, which should improve reliability, if not validity, of assessment of trauma exposure and PTSD. The next few years will see a new wave of research dedicated to exploring the implications of the DSM-5 criteria, and as the empirical evidence accumulates additional changes may be warranted. The main reason for changing from Roman to Arabic numerals to indicate DSM version is to allow for more frequent and less extensive changes, with updates numbered in the manner of software. This approach to revision should make for a more responsive nosology that at any given time accurately reflects state-of-the-science knowledge regarding the psychological impact of exposure to catastrophic life events.

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