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The Evolving Construct of Posttraumatic Stress Disorder (PTSD): DSM-5 Criteria Changes and Legal Implications

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Abstract

In the DSM-5, the diagnosis of posttraumatic stress disorder (PTSD) has undergone multiple, albeit minor, changes. These changes include shifting PTSD placement from within the anxiety disorders into a new category of traumatic and stressor-related disorders, alterations in the definition of a traumatic event, shifting of the symptom cluster structure from three to four clusters, the addition of new symptoms including persistent negative beliefs and expectations about oneself or the world, persistent distorted blame of self or others, persistent negative trauma-related emotions, and risky or reckless behaviors, and the addition of a dissociative specifier. The evidence or lack thereof behind each of these changes is briefly reviewed. These changes, although not likely to change overall prevalence, have the potential to increase the heterogeneity of individuals receiving a PTSD diagnosis both by altering what qualifies as a traumatic event and by adding symptoms commonly occurring in other disorders such as depression, borderline personality disorder, and dissociative disorders. Legal implications of these changes include continued confusion regarding what constitutes a traumatic stressor, difficulties with differential diagnosis, increased ease in malingering, and improper linking of symptoms to causes of behavior. These PTSD changes are discussed within the broader context of DSM reliability and validity concerns.

The goal of the new Diagnostic and Statistical Manual of Mental Disorders (DSM-5, American Psychiatric Association, 2013), as with previous editions, is to provide a common language or nomenclature for describing psychiatric disorders. Some (e.g., Insel, 2013) have likened it to a dictionary, providing a set of labels and definitions based on consensus about clusters of clinical symptoms. This diagnosis, based on symptom presentation, diverges from the diagnosis of common medical disorders such as ischemic heart disease, lymphoma, or AIDS, where underlying causes and objective measures are used for diagnosis. Although the process surrounding the development of this revised edition has been contentious, for the most part, the DSM-5 includes only modest changes from the previous editions. These

changes are based on emerging scientific evidence, clinical observations, and expert opinions. Changes in the diagnostic criteria for posttraumatic stress disorder (PTSD) are no exception. In general, the changes for PTSD appear relatively minor and will likely not have a substantial impact on prevalence or broad conceptualization of the diagnosis. The diagnosis has retained the vast majority of symptoms (e.g., recurrent, involuntary, and intrusive distress memories of the traumatic event, avoidance of or efforts to avoid distressing memories, thoughts, or feelings, hypervigilance). The changes include shifting PTSD from an anxiety disorder to a newly created category of trauma and stressor-related disorders, a redefinition of what constitutes a traumatic event, a shifting of the clusters of symptoms, including adding four more symptoms (negative beliefs/expectations, distorted blame, persistent negative emotions, reckless or self-destructive behavior), and the creation of a dissociative subtype. However, these changes to the PTSD criteria might be more than benign, especially in the legal context.

As the DSM-5 was being developed, two important events occurred that are worthwhile to understand in their broader context and as they relate to PTSD. First, the results from the American Psychiatric Association sponsored field trial studies examining the newly developed DSM-5 criteria began to emerge. The main field trial results examining the reliability of the new versions of the DSM-5 diagnoses were reported at the annual meeting of the American Psychiatric Association in May 2012 and later published (Regier et al., 2013) as were published diagnostic-specific findings (e.g., Miller et al., 2012). Notably, the agreement among raters about the presence or absence of DSM-5 diagnoses was lower than many clinicians and even researchers expected. These expectations can be seen in both the strong criticism by some (e.g., Spitzer, Endicott, & Williams, 2012) and the discussion of adequate reliability by those directly involved with the DSM-5 (e.g., Kraemer, Kupfer, Clarke, Narrow, & Regier, 2012a; Kraemer, Kupfer, Clarke, Narrow, & Regier, 2012b), where it was argued that the observed reliability was similar to what was seen in other medical diagnoses. The new PTSD criteria was interpreted to have “very good” reliability (Kappa = .67; Regier et al., 2013), though some would disagree suggesting that the observed agreement was likely elevated given the anchoring role of an objective traumatic event as a necessary condition for considering the diagnosis. The diagnostic-specific findings for DSM-5 PTSD (Miller et al., 2012), based on data from U.S. military veterans ($N = 345$) and a U.S. national sample ($N = 2,953$), showed that the revised factor structure provided an adequate fit for the data in both samples. However, another model incorporating a previously validated factor structure slightly improved the model fit. Further, two symptoms (psychogenic amnesia and the new symptom of risky behavior) did not fit well with other PTSD symptoms. Second, Tom Insel, MD, director of the U.S. National Institute Mental Health (NIMH), argued that the DSM diagnoses suffer from validity problems and that the field needs alternative methods to advance our nosology (Insel, 2013). These validity concerns stem from the inability of biological markers to map well onto DSM diagnostic categories. The Research Domain Criteria (RDoC) project from NIMH was launched to transform psychiatric diagnoses by incorporating genetics, imaging, cognitive science, and other levels of information to lay the foundation for a new classification system (see Sanislow et al., 2010). Taken together, the new DSM-5 has been criticized for both reliability and validity problems, and PTSD is no exception.

With this backdrop of both emerging reliability and validity concerns, PTSD has been moved out of the category of anxiety disorders, which signifies a re-conceptualization of PTSD as a “trauma- and stressor-related disorder.” Although this change is unlikely to have immediate implications, we (Zoellner, Rothbaum, & Feeny, 2011; Zoellner, Pruitt, Farach, & Jun, 2013) have argued that there was insufficient evidence for PTSD to be considered distinct from the anxiety disorders. With time, this runs the risk of moving the PTSD field away from the focus on a sense of imminent threat or danger as seen in persistent fear and

anxiety reactions following trauma exposure. Further, this places a stronger emphasis on “trauma” being unique from other stressors. With this new classification, a clinician may be more inclined to consider a PTSD diagnosis for a trauma-exposed patient rather than other disorders commonly associated with reactions to trauma and other stressors, such as depression, borderline personality disorder, and generalized anxiety disorder (e.g., Bryant et al., 2010). This also potentially inflates rates of comorbidity and clinical perceptions of complexity. The bottom line is that, for trauma survivors, as with previous DSM editions, clinical diagnosis needs to carefully assess pre-trauma functioning and consider that another diagnosis besides PTSD may be equally or even better warranted; however, the consideration of other non-trauma disorders as an appropriate diagnosis following trauma may be less likely to occur given the new class of trauma-related disorders.

Given these considerations of a reconceptualization of PTSD as trauma and stressor-related disorder, in this paper, we will review specific changes to the definition of a traumatic event (Criterion A), the restructuring of symptom clusters, the addition of a revised negative alterations in cognitions and mood cluster (including new symptoms of persistent negative beliefs, distorted blame, negative emotional state symptoms), the new symptom of risky behavior, the retention of the psychogenic amnesia symptom, and the addition of a dissociative specifier. For each section, we will briefly state the change, provide some empirical insight into the evidence or lack thereof for the change, and discuss potential implications in a legal setting.

Changes in Traumatic Stress Criterion (Criterion A)

PTSD requires exposure to a traumatic stressor defined by Criterion A, which is considered a gatekeeper, determining who will be considered or not, for a diagnosis (American Psychiatric Association, 2000). DSM-IV Criterion A consisted of objective (A1) and subjective (A2) components. Criterion A1 required that the person “experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others.” DSM-IV expanded Criterion A1 from DSM-III to include indirect exposure to the trauma, such as family members who lost their spouse or child to murder or combat (e.g., Freedy, Resnick, Kilpatrick, Dansky, & Tidwell, 1994). This expansion to include “learning about” traumatic events increased lifetime prevalence of exposure to traumatic events by 59.2% (Breslau & Kessler, 2001) and accounted for 38% of total PTSD cases (Weathers & Keane, 2007). This revision was viewed by some as problematic in its use of ambiguous language, especially around indirect confrontation or learning about a traumatic experience. For example, it was not clear whether seeing news footage of deaths from the 9/11 terrorist attacks satisfied Criterion A1. DSM-5 provides revised parameters of Criterion A1, whereby indirect exposure is defined more specifically as “learning that the traumatic event occurred to a close family member or close friend” in which the “actual or threatened death must have been violent or accidental” (American Psychiatric Association, 2013, p. 271). The definition also includes “experiencing repeated or extreme exposure to aversive details of the traumatic event,” such as “first responders collecting human remains; police officers repeatedly exposed to details of child abuse” (American Psychiatric Association, 2013, p. 271). With this, DSM-5 explicitly excludes witnessing traumatic events through electronic media, television, video games, movies, or pictures, unless the exposure is directly related to one's vocational role (e.g., television journalists). The exclusion of witnessing traumatic events through electronic media is based on studies finding low prevalence of PTSD from confronted events, such as witnessing video footage of the 9/11 terrorist attacks (Ahern, et al., 2002) or violent video clips (Weidmann & Papsdorf, 2010).

Originally in DSM-III, Criterion A was conceptualized as a major, life-threatening traumatic stressor that would “evoke significant symptoms of distress in almost everyone” (American Psychiatric Association, 1980, p. 238). The more recent DSM-5 revisions allow it to be satisfied by both high magnitude catastrophic events (e.g., combat exposure or violent rape) and lower magnitude events that are indirectly experienced (e.g., learning a family member died unexpectedly or witnessing a fight; American Psychiatric Association, 2013). As mentioned above, DSM-5 provides slightly more specific language to address the ambiguity of DSM-IV’s definition of indirect exposure. However, it does not fully address what has been termed Criterion A “bracket creep,” where the definition of what constitutes a traumatic stressor is open to expansion beyond its intended boundaries (McNally, 2003). For example, people could still make arguments that sexual harassment (e.g., Avina & O’Donohue, 2002), complicated childbirth (e.g., Olde, van der Hart, Kleber, & van Scott, 2006), chronic illness (e.g., Eglinton & Chung, 2011), and the loss of one’s farm animals (e.g., Olf, Koeter, van Haften, Kersten, Gersons, 2005) may satisfy the criterion. Including such lower magnitude events may be diluting the diagnosis from one related specifically to the experience of a traumatic event (Elhai, Kashdan, Frueh, 2005; McNally, 2003, 2009), complicating the distinction between PTSD and other disorders in which life stressors often mark the onset of symptoms (e.g., adjustment disorder, depression, social anxiety). The symptoms seen in PTSD also commonly occur in those adjusting to various life stressors (e.g., Gold, Marx, Soler-Baillo, & Sloan, 2005). In fact, it has been proposed that Criterion A could be eliminated completely due to lack of a unique relationship between the criterion stressor and PTSD symptoms (e.g., Brewin, Lanius, Novac, Schnyder, & Galea, 2009; Kilpatrick, Resnick, & Acierno, 2009). Overall, the revised definition of Criterion A is still potentially confusing and adds little clarification to the distinction between a stressor and a traumatic (Criterion A) stressor, if such a distinction exists.

In DSM-IV, in addition to being exposed to a Criterion A1 trauma, the individual’s response needed to involve “intense fear, helplessness, or horror,” as stated by Criterion A2. The diagnostic utility of Criterion A2 has been widely questioned. The majority of individuals who meet Criterion A1 also meet Criterion A2, and, similarly, those who meet Criterion A1 and have PTSD symptoms usually meet Criterion A2 (Bedard-Gilligan & Zoellner, 2008; Brewin, Andrews, & Rose, 2000; Creamer, McFarlane, & Burgess, 2005; Karam et al., 2010). McNally (2009, p. 598) pointed out that including Criterion A2 within Criteria A “confounds the response with the stimulus” and “it confounds the host with the pathogen.” This is further problematic given that assessment of the individual’s response to the trauma is retrospective, thus subject to memory biases as well as state-dependent recall. Due to the emerging data on the lack of utility of DSM-IV A2 and these conceptual concerns, DSM-5 removed Criterion A2 completely (American Psychiatric Association, 2013).

Potential legal implications

PTSD is one of few psychiatric disorders to explicitly require identification of a specific external event, assumed causal to the presentation of symptoms (Taylor, Frueh, & Asmundson, 2007). Thus, it is perhaps not surprising that PTSD is a diagnosis frequently brought into a variety of forensic situations, such as those with financial incentives (e.g., disability claims), civil lawsuits, or legal defense of felony charges. One issue in the legal field that is still not addressed by DSM-5 is the need for corroboration of the traumatic event. Similarly, in the Veterans Affairs system for disability awards, an amendment eliminated the requirement for corroborating evidence that the traumatic stressor occurred, if the stressor claimed by the veteran is related to fear of hostile military or terrorist activity (Department of Veterans Affairs, 2010). This suggests that merely being present at a military base that could be hazardous would be considered a traumatic stressor. This may encourage increased rates of over-reporting PTSD symptoms (Frueh, Hamner, Cahill,

Gould, & Hamlin, 2000; Frueh et al., 2003) and malingering (Freeman, Powell, & Kimbrell, 2008). Without the requirement to check the veracity of traumatic events, it brings to question how we should go about handling claims of recovered memories of traumatic events or events in which the reality of their occurrence is questionable (e.g., McNally et al., 2004). Given these concerns, there is a need for pre-trauma functioning assessments in forensic cases, in order to get a more complete picture of the presentation and history of the symptoms. DSM-5's Criterion A revisions also leave gaps and confusing language regarding acceptable types of indirect trauma exposure for a PTSD diagnosis. For example, given the allowance of vocational indirect exposure, could therapists who are repeatedly exposed to aversive details of the traumatic events of their clients (e.g., Dunkley & Whelan 2006) or jurors repeatedly exposed to details of a forensic case (e.g., Robertson, Davies, & Nettleingham, 2009) satisfy Criterion A? With the revised DSM-5 criteria, there is no clear answer to these questions. Another unresolved issue is how to handle a legal defense of a perpetrator reporting PTSD symptoms as a result of the crime he or she committed. The distinction between experiencing versus committing a trauma is not addressed. Taken together, DSM-5 revisions in regard to Criterion A provide some additional clarity in what constitutes a traumatic stressor but still leave room for a variety of interpretations of what constitutes a traumatic stressor, particularly around indirect, vocational exposure.

Reorganization of Symptoms Clusters

Another change to the DSM-5 is the reorganization and expansion of the PTSD symptom clusters. The DSM-IV avoidance/numbing symptom cluster with seven symptoms was revised and split into two separate symptom clusters—an effortful avoidance cluster with two symptoms, and a negative alteration in cognitions and mood cluster with seven symptoms (e.g., negative cognitions, distorted blame, and persistent negative emotions). The addition of a fourth symptom cluster is consistent with factor analytic research (e.g., Friedman, Resick, Bryant, & Brewin, 2011; Yuffik & Simms, 2010). Although there is a general consensus in favor of a four-factor model, there has been disagreement regarding composition of this fourth factor. Across a number of studies, there is evidence for a distinct “numbing” cluster seen by separating avoidant and numbing symptoms into two separate factors (Andrews, Joseph, Shevlin, & Troop, 2006; Asmundson et al., 2000; DuHamel et al., 2004; King, Leskin, King, & Weathers, 1998; Marshall, 2004; McWilliams, Cox, & Asmundson, 2005; Palmieri & Fitzgerald, 2005; Palmieri, Marshall, & Schell, 2007; Schinka, Brown, Borenstein, & Mortimer, 2007). In contrast, other studies suggest that the fourth factor should combine numbing and hyperarousal symptoms into a “dysphoria” factor (Elkit & Shevlin, 2007; Palmieri, Weathers, Difede, & King, 2007; Watson, & Doebbeling, 2002). Despite these differing findings, the field generally agrees that avoidance symptoms and numbing symptoms do not belong in the same factor, which is consistent with research that conceptualizes effortful avoidance and numbing symptoms as structurally distinct phenomena (Asmundson, Stapleton, & Taylor, 2004; King et al., 1998; Naifeh, Elhai, Kashdan, & Grubaugh, 2008; Palmieri, Weathers et al., 2007; Simms, Watson, & Doebbellling, 2002). Although avoidance and numbing may serve similar escape functions, they may arise from distinct mechanisms, the former by strategic processes to avoid traumatic reminders and the latter by automatic responses to arousal (e.g., Foa, Riggs, & Gershuny, 1995). These symptoms also vary in their factor loadings with other posttraumatic symptoms (Foa et al., 1995), providing further support for conceptualizing them as distinct phenomena. The DSM-5 changes to the factor structure for PTSD resemble, but does not fully adopt, the “numbing” factor structure proposed by King et al. (1998). In addition to the separation of avoidance and numbing symptoms, as proposed by past factor analytic studies, the DSM-5 reconceptualizes this numbing factor as a negative mood and cognition cluster, including previous numbing symptoms and adding new ones (i.e., negative beliefs, distorted blame, persistent negative emotions). Notably, in the DSM-5 field trial

data, the new structure provided an acceptable, but not excellent, fit to the data, whereas an alternative four-factor dysphoria model (not the DSM-5 model) demonstrated an improvement in model fit (Miller et al., 2012).

The new DSM-5 avoidance cluster has only two symptoms. Requiring the presence of at least one avoidant symptom re-emphasizes avoidant behavior as a key construct of PTSD. This decision to require either avoidance of trauma-related thoughts and feelings or avoidance of trauma-related external reminders (e.g., people, places, activities) eliminates the possibility of meeting PTSD diagnostic criteria with three numbing symptoms and no effortful avoidance behavior, which was possible in DSM-IV. Some have suggested that the utility of the numbing symptoms is questionable, given that they represent high subjective distress and are not specific to PTSD (Watson, 2009; Spitzer, First, & Wakefield, 2007). In fact, a large prospective study conducted by Forbes et al. (2010) found that PTSD-specific symptoms, such as avoidance, load much higher onto a fear factor, as opposed to non-specific PTSD symptoms, such as numbing, that load much higher onto a general distress factor. The DSM-5's emphasis on avoidance symptoms may help emphasize this fear-based response and may help improve diagnostic specificity by preventing individuals who do not avoid reminders of their trauma from obtaining a diagnosis of PTSD (Zoellner, Pruitt, Farach, & Jun, 2013). The DSM-5 avoidant cluster's two symptoms (C1, C2) also have psychometric problems. Two items that are highly correlated with one another in a criteria cluster introduce more error and decrease reliability of the cluster (Miller et al., 2012). Most psychometricians would have argued to add more symptoms to the avoidance cluster to help make it stable.

It is unclear how this separation into four clusters will alter PTSD prevalence. Elhai, Ford, Ruggiero, and Frueh (2009) estimated that utilizing King's four-factor model (1998) compared to the DSM-IV three-factor model will decrease prevalence of PTSD by approximately one percent, mainly driven by the separation of avoidance and numbing symptoms. Although the DSM-5 model differs slightly from previously studied four-factor models, we can expect the similar separation of symptoms would lead to slightly lowered prevalence of PTSD, as well. In another study, Forbes et al. (2011) projected a 25% reduction in PTSD prevalence, arguing that the requirement of avoidance will reduce spurious diagnoses of PTSD where major depressive disorder (MDD) or general mood disturbance may better account for symptoms. In their sample, a large majority of the MDD cases that met DSM-IV but not DSM-5 criteria for comorbid PTSD failed to meet the avoidance criteria. Thus, taken together, the new avoidance requirement may improve diagnostic specificity. However, it is also plausible that the prevalence will not be affected by the aforementioned DSM-5 changes due to the already high endorsement rates of the avoidance of trauma-related thoughts, places, and activities symptoms (e.g., Miller et al., 2012). The greater emphasis on avoidant symptoms may increase sensitivity in identifying PTSD, but their already high endorsement rates may not help the specificity of the diagnosis.

Potential legal implications

The requirement of avoidant behavior may fail to capture certain trauma survivors who must continue facing reminders of their trauma (e.g., individuals who must drive to work after a car accident, injured worker returning to work, combat veteran returning to combat). The DSM-5 PTSD wording is at odds with the definition of avoidant behavior in DSM-5 anxiety disorders, in which situations are either actively avoided or endured with intense fear or anxiety. Furthermore, this focus on avoidance may even foster a disincentive to engage in trauma-related activities in order to maintain eligibility for disability and other financial compensations. If the consequence of "facing one's fears" may easily mitigate a diagnosis of PTSD, individuals who benefit from having a PTSD label may have secondary gain

incentive to avoid approaching trauma memories and reminders. Conversely, because obtaining a diagnosis could potentially hinge on the presence or absence of avoidance, the focus on behavioral avoidance could be misused to suggest that trauma survivors are responsible for their diagnosis. This is in contrast to predominant theories of PTSD that conceptualize avoidance behavior as a reaction to extreme distressing circumstances and that consider it a defining symptom of the disorder and not a voluntary behavior independent of psychopathology (e.g., Jaycox, Zoellner, & Foa, 2002). Thus, the language around avoidance behavior could have implications in cases of disability and benefits in which individuals could be denied compensation or restitution based on an interpretation of avoidance behavior as a choice as opposed to characteristic of the disorder. Lastly, PTSD symptoms are easily coached and successfully feigned (Rosen, 1996). Malingering of avoidant symptoms is relatively easy, in that it is straightforward to imagine the thoughts, feelings, situations, and activities one would avoid after a given traumatic experience. For example, unlike other symptoms that are harder to describe without having experienced them, it is not hard to imagine that individuals might avoid driving after a motor vehicle accident. Thus, having a symptom cluster defined exclusively with explicit avoidance behaviors may allow for increased malingering.

Negative Alterations in Cognitions and Mood Cluster: The Addition of Persistent Negative Beliefs, Distorted Cognitions, and Negative Emotional State Symptoms

As discussed briefly above, the DSM-5 added a new cluster of symptoms designed to represent cognitive and mood disturbances seen with PTSD. Specifically, criterion D2 (“persistent negative beliefs and expectations about oneself or the world”), criterion D3 (“persistent distorted blame of self or others for causing the traumatic event or for resulting consequences”), and criterion D4 (“persistent negative trauma-related emotions) were newly added symptoms; and the DSM-IV criterion “sense of foreshortened future” was combined with the D2 distorted cognitions and maladaptive appraisals criterion. These changes are a conceptual shift from DSM-IV to include a broader range of reactions, including reactions of generalized negative affect.

Negative beliefs, distorted blame, and persistent negative emotional states are commonly reported after trauma exposure. Negative beliefs, about incompetency of oneself and the dangerousness of the world, consistently separate PTSD and non-PTSD trauma exposed samples (e.g., Foa, Ehlers, Clark, Tolin, & Orsillo, 1999) and predict the development of later PTSD (e.g., Dunmore, Clark, & Ehlers, 2001). In Miller and colleagues’ (2012) civilian sample, 79% of participants reported at least some negative beliefs, 83% reported at least some guilt, and 93% reported at least some persistent negative emotions, with smaller percentages, 31%, 29%, and 37% respectively, reporting severe levels of each of these symptoms. Although not all individuals with PTSD have elevated distorted beliefs or persistent negative emotions, for those who do, these beliefs and negative emotions improve with PTSD treatment (e.g., Cahill, Rauch, Hembree, & Foa, 2003; Foa & Rauch, 2004; Nishith, Nixon, & Resick, 2005). Thus, these added symptoms are commonly associated with the presence and remittance of PTSD.

Even so, a primary concern with the addition of these symptoms is increasing the heterogeneity of PTSD. The sheer increase in number of symptoms (from 17 to 20) dramatically increases the potential number of combinations of symptoms that can constitute a PTSD diagnosis (e.g., Zoellner et al., 2011), directly increasing the heterogeneity of the disorder. Further, these particular symptoms of negative beliefs, guilt, and persistent negative affect are commonly seen in individuals with depression (e.g., Rude, Durham-

Fowler, Baum, Rooney, & Maestas, 2010). Thus, the inclusion of these symptoms has the potential to increase the overlap between PTSD and major depressive disorder (MDD).

There is already a high degree of co-occurrence between PTSD and MDD (e.g., Elhai, Grubaugh, Kashdan, & Frueh, 2008; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). The DSM-IV criteria for PTSD included, and DSM-5 still includes, a high number of numbing and hyperarousal symptoms that overlap with depressive symptoms (e.g., loss of interest, feeling detached, concentration difficulties, sleep difficulties, irritability). Individuals with co-occurring PTSD and MDD report higher subjective distress and dysphoria symptoms than individuals with PTSD alone (Blanchard, Buckley, Hickling, & Taylor, 1998; Shalev et al., 1998; Simms, Watson, & Doebbeling, 2002), suggesting that the alterations in mood are more related to MDD than PTSD specifically. Thus, one of the implications of the addition of these cognitive and persistent negative affect symptoms is a further weighting of the diagnosis toward depression. However, it is not clear whether this weighting will alter prevalence of PTSD (e.g., Grubaugh, Long, Elhai, Frueh, & Magruder, 2010).

A related concern is a growing lack of specificity of PTSD as a reaction to an extreme stressor (e.g., Bodkin, Pope, Detke, & Hudson, 2007; McHugh & Treisner, 2007; Spitzer et al., 2007). The more nonspecific factors are added to a given symptom cluster, the more likely the diagnosis will capture a wider variety of general distress reactions. This may be particularly problematic when the trauma involves loss. Individuals who did not meet DSM-IV Criterion A1 (i.e., two-thirds reported the death or illness of a loved one) actually were more likely to meet diagnostic symptom criteria for PTSD than those who met Criterion A1 (Gold et al., 2005). Consistent with this, even in the absence of a DSM-IV Criterion A1 trauma, individuals seeking depression treatment are likely to meet symptom criteria for PTSD (Bodkin et al., 2007). Related, in depression, the lack of stressor specificity in the context of bereavement versus depression that is “out of the blue” resulted in the elimination of the bereavement exclusion from DSM-5 major depression (see Zisook et al., 2012). Thus, similar to the emerging evidence in depression, the inclusion of more non-specific symptoms has the potential to reduce a traumatic stressor criteria's ability to predict a unique constellation of symptoms.

Potential legal implications

In summary, the changes to Criterion D in DSM-5 may make it harder to link symptoms directly to trauma exposure, given that the symptom additions are generally nonspecific and overlapping with MDD. This may result in individuals more readily attributing symptoms that are not necessarily connected to the traumatic event to a traumatic event or making misattributions about the event itself. Individuals with depression are often biased in their retrospective reporting of events, having both specificity and negative attribution problems (e.g., Dalgleish & Watts, 1990; Brewin, Andrews, & Gotlib, 1993). Thus, a currently depressed individual who is asked to testify in court regarding a traumatic event will likely report more negative experiences and interpretations of events at the expense of other, non-mood congruent event-related information. Further, given that the traumatic event is a tangible and concrete entity, trauma survivors who are depressed are more likely to attribute symptoms to that event, instead of to some pre-existing vulnerability or psychopathology. Notably, if an individual experiences excessive and distorted beliefs of self-blame about the traumatic event (now a Criterion D symptom), judges and jurors may take these interpretations as fact rather than as the distorted perceptions that they represent. For example, a rape survivor may blame herself for attending the social party and being in the environment where the rape occurred, even though she could not have foreseen the rape happening. Her distorted self-blame and excessive guilt related to the rape may be perceived as realistic and incriminating by a jury panel. Perceived guilt is now a symptom of PTSD.

These potential legal implications argue for a careful pre- and post-trauma evaluation of psychiatric functioning and caution in interpreting any beliefs about guilt or blame, particularly for those with PTSD or depression. The new DSM-5 symptom additions involving distorted cognitions and blame may lead to trauma survivors being held accountable for an event due to their inaccurate testimony stemming from precisely these distorted thoughts. Thus, there is the potential for the newly included symptoms of mood disturbance and altered beliefs to complicate legal proceedings.

Retention of Psychogenic Amnesia and the Addition of Risky Behavior Symptoms

In the DSM-5, the symptom of psychogenic amnesia was retained and the symptom of reckless or self-destructive behavior was added. Both psychogenic amnesia, defined as “the inability to recall an important aspect of the trauma” and risky behavior, defined as “reckless or self-destructive behavior such as dangerous driving, excessive drug or alcohol use, or self-injurious or suicidal behavior” (American Psychiatric Association, 2013, p. 275), are symptoms that have lower prevalence than other PTSD symptoms. Using a nationally representative sample, Miller and colleagues (Miller et al., 2012) found that psychogenic amnesia occurred in 38% and reckless behavior in 41% of individuals exposed to a traumatic event, with only 7%-8% of individuals reporting either symptom in the severe range. This is in stark contrast with other symptoms, such as intrusions or emotional reactivity to trauma reminders, which occurred in over 95% of individuals with PTSD, and with over 41-46% in the severe range. This same pattern was also found in a Veteran sample (Miller et al., 2012). Accordingly, these two symptoms represent the least commonly endorsed symptoms seen in individuals with DSM-5 defined PTSD. Further, these symptoms consistently load considerably below all other PTSD symptoms with their symptoms clusters and show poor discrimination between individuals with high and low symptom severity (Miller et al., 2012). The pattern of findings for psychogenic amnesia replicates extensive previous DSM-IV studies showing low cluster and higher-order factor loadings for this item (e.g., Asmundson et al., 2000; King, Leskin, King, & Weathers, 1998; Simms, Watson, & Doebbellings, 2002). Given their low prevalence and poor factor loadings, it is surprising that psychogenic amnesia was retained from the DSM-IV and that risky behavior was added. Indeed, the main paper funded by the American Psychiatric Association Research Program to examine the DSM-5 symptom structure for PTSD suggested that both psychogenic amnesia and risky behavior symptoms should not be considered core symptoms of PTSD and should be considered for removal from the DSM-5 (Miller et al., 2012).

The inclusion of psychogenic amnesia as a specific symptom of PTSD has a long-standing history of being controversial. The main controversy involves the question whether one can forget strong, emotional traumatic events or important facets of these events. If anything, the DSM-5 appears to further reify the belief that the inability to remember an important aspect of the traumatic event is typically due to dissociative amnesia and not due to others factors (such as head injury, alcohol, or drugs). Some argue that dissociative amnesia for an entire traumatic event or key aspects of an event is possible and even relatively common (see Carlson, Dalenberg, & McDade-Montex, 2012), while others think it is unlikely and pose other explanations (see Kihlstrom, 2005; Lynn, Lilienfeld, Merckelbach, Giesbrecht, & van der Kloet, 2012; McNally, 2003). These alternative explanations, arguing that cognitive and sleep mechanisms underlie the observed phenomenon, have received scant attention in the clinical literature but have a solid scientific base (Lynn et al., 2012). For example, dissociation increases the number of commission memory errors (e.g., confabulations/false positives, problems discriminating perception from imagery) but not omission memory errors, presumably associated with dissociative amnesia (Holmes et al., 2005). Further,

when trying to understand psychogenic amnesia, it is not clear whether the details in question were not encoded in the first place or whether they constitute a retrieval failure, leading McNally (2009) and others to conclude that this symptom should be eliminated from DSM-5 PTSD. Finally, as will be discussed below, still others argue the presence of psychogenetic amnesia should be included as part of a dissociative subtype of PTSD (e.g., Lanius, Brand, Vermetten, Frewen, & Spiegel, 2012) or considered as a dissociative disorder instead of a symptom of PTSD.

In contrast to the long-standing controversy regarding psychogenic amnesia, the research on risky behaviors and PTSD has been smaller in scope and has focused largely on suicidal behavior. This literature tends to suffer from selective sampling and cross-sectional designs. Although there is a link between PTSD and suicidal behaviors (e.g., Kanwar et al., 2013), it is likely that this relationship is accounted for by co-occurring depression (e.g., Panagioti, Gooding, Taylor, & Tarrier, 2013) and borderline personality disorder (e.g. Zlotnick et al., 2003), which are commonly seen with PTSD (e.g., Rytwinski, Scur, Feeny, Youngstrom, 2013). Similarly, although there is a link between childhood trauma, emotion dysregulation, and risky behavior (e.g., Messman-Moore, Walsh, & DiLillo, 2010), this literature has not directly linked PTSD and risky behavior, shown an association with other types of trauma, and similarly needs to examine factors that may better account for observed risky behavior relationships. In one of the largest studies to date of active duty military personnel and risky behaviors (e.g., risky recreation, unprotected sex, drug use, self-harm, and suicide attempt), Thomsen, Stander, McWhorter, Rabenhorts, and Milner (2011) reported that risky behavior was moderately associated with both depression and anxiety but only mildly associated with PTSD. Further, psychiatric problems did not mediate the relationship between military deployment and risky behavior. According to the DSM-5 workgroup itself, reckless or self-destructive behavior was included as “an important posttraumatic symptom often seen in adolescents” (Friedman, Resick, Bryant, & Brewin, 2011, p. 761). Indeed, there is one cross-sectional study that reported that PTSD has an indirect effect on the association between childhood sexual abuse and non-suicidal self-injurious behavior in adolescents (Weierich & Nock, 2008); but future research is needed and, like the adult literature, needs to address key third variables, such as co-occurring depression or borderline personality disorder (BPD, e.g., Borders, McAndrew, Quigley, & Chandler, 2012).

Potential legal implications

Despite the controversy over psychogenic amnesia and the lack of solid empirical data underlying a strong, direct association between PTSD and risky behaviors, the inclusion of both of these symptoms in the DSM-5 conceptualization of PTSD has the potential for further codifying a “PTSD made me do it” form of legal defense to plead not guilty by reason of insanity or to argue for diminished capacity as a mitigating factor at sentencing. This is especially the case in that anyone can now point to the DSM-5 and say that these are symptoms of the disorder. Although in the past, traumatic re-experiencing in the form of flashbacks and psychogenic amnesia were symptoms that received forensic focus, the addition of risky behavior adds another PTSD symptom that will potentially have the same forensic implications. Further, the research body linking these particular PTSD symptoms to the perpetration of violent crimes is weak and predominantly characterized by case studies. The DSM-5 does warn against the “simple check-off of the symptoms in the diagnostic criteria” (American Psychiatric Association, 2013, p. 19) to make the diagnosis and, as with the DSM-IV, also includes a cautionary statement for its forensic use. Notably, this includes an instructive statement that, “. . . a diagnosis does not carry any necessary implications regarding the etiology or causes of an individual's mental disorder or the individual's degree of control over behaviors that may be associated with the disorder. . . having the diagnosis in itself does not demonstrate that a particular individual is (or was) unable to control his or her

behavior at a particular time.” Overall, the evidence for the retention of psychogenic amnesia and the addition of risky behavior symptoms to the PTSD diagnostic criteria is weak, and the use of these symptoms as a cause of behavior should be viewed with extreme caution.

Addition of Specifier “With Dissociative Symptoms”

Historically, dissociative symptoms have been emphasized as a clinically important set of reactions following trauma exposure, although they have also been the subject of considerable debate and controversy. With recent changes, the DSM-5 now includes a subtype of the PTSD diagnosis that specifies dissociative reactions of either depersonalization (“out-of-body” experiences, such as observing oneself from the outside), or derealization (the perception of unreality or being in a dreamlike state; American Psychiatric Association, 2013). Depersonalization and derealization are the two most commonly studied dissociative reactions related to PTSD (Lanius et al., 2012). The inclusion of the dissociative subtype is based on the hypothesis that there is a distinct subset of individuals who respond to traumatic events with a predominantly dissociative reaction, in contrast to a more predominant hyperarousal reaction, and that dissociative reactions are an avoidance strategy resulting in decreased experiencing of emotions, such as anxiety and fear (e.g., Bremner, 1999; Friedman et al., 2011; Griffin, Resick, & Mechanic, 1997; Lanius et al., 2012). The new DSM-5 dissociative subtype implies that these individuals are unique from individuals with PTSD who do not present with these persistent dissociative reactions. The rationale for including a dissociative subtype is driven by the view that these individuals show distinct neurobiological and treatment responses compared to individuals with PTSD who do not report significant dissociative reactions (e.g., Lanius et al., 2012). However, the assumption that dissociation is a phenomenon primarily related to trauma exposure and resulting psychopathology has been called into question (e.g., Lynn, Lilienfeld, Merckelbach, Giesbrecht, & van der Kloet, 2012).

Dissociative reactions are seen following repeated and prolonged trauma exposure (e.g., Bremner et al., 1992; Carlson et al., 2001; Stein et al., 2013; van der Kolk, Pelcovitz, Roth, & Mandel, 1996) and are associated with more severe PTSD symptoms, decreased functioning, and increased comorbidity (Stein et al., 2013; Waelde, Silvern, & Fairbank, 2005). Trauma exposure is thought to precede the development of dissociative reactions, suggesting that trauma exposure is an etiologic factor in dissociative symptoms (e.g., Carlson, Dalenberg, & McDade-Montez, 2012). Others argue for cognitive and personality differences (e.g., absorption), rather than trauma exposure, per se, being stronger etiologic factors in the development of persistent dissociation (Lynn et al., 2012; McNally, 2003). In both veteran (Waelde et al., 2005; Wolf et al., 2012a; Wolf et al., 2012b) and civilian (Steuwe, Lanius, & Frewen, 2012) samples, using approaches such as taxometric and latent class analyses, individuals with dissociative presentations have been found to represent distinct patient groups. However, other studies suggest that dissociation is a continuous construct (Forbes, Haslam, Williams, & Creamer, 2005; Ruscio, Ruscio, & Keane, 2002), calling into question the DSM-5 assertion that dissociative reactions are indicative of a qualitatively distinct subtype of post-trauma reaction.

Experimental studies investigating whether there exists a subtype of dissociative individuals characterized by distinct functioning of the neurobiological systems indicated in PTSD have shown increased activation of the medial prefrontal cortex and overmodulation of the corticolimbic system when exposed to trauma reminders (e.g., trauma narratives) for individuals with co-occurring high levels of dissociation in addition to PTSD (Felmingham et al., 2008; Hopper, Frewen, van der Kolk, & Lanius, 2007; Lanius, et al., 2002; Lanius et al., 2010). These studies are limited in that only one study (Felmingham et al., 2008)

compared individuals with dissociative and non-dissociative PTSD and all are cross-sectional in nature, preventing the establishing of a causal connection between trauma, PTSD, and dissociation. Individuals with PTSD will likely exhibit both undermodulation (e.g., hyperarousal/anxiety symptoms) and overmodulation (e.g., dissociative symptoms) in response to trauma cues at various times (Lanius et al., 2012), and thus interpretation that this is evidence for a specific subtype of PTSD is questionable. In addition, although there is some evidence of decreased autonomic arousal in individuals high in dissociation in response to fear-evoking stimuli (Griffin et al., 1997), other studies have not shown this pattern (Kaufman et al., 2002; Nixon, Bryant, Moulds, Felmingham, & Mastrodomenico, 2005). Thus, the research evidence for a distinct biological presentation associated with high levels of dissociation and PTSD remains inconclusive to date.

In addition, the rationale for including dissociative features as a subtype of the PTSD diagnosis in DSM-5 is at least partly based on a limited amount of research suggesting that individuals with a dissociative presentation show poorer PTSD treatment response, due to decreased ability to achieve the emotional engagement necessary for treatment efficacy (Lanius et al., 2012; Resick, Suvak, Johnides, Mitchell, & Iverson, 2012) and due to cognitive deficits associated with dissociation (Giesbrecht, Lynn, Lilienfeld, & Merckelbach, 2008). It is posited that the inclusion of the dissociative subtype will allow for the development of targeted treatment approaches that can specifically address emotional experiencing deficits characteristic of those with high dissociative tendencies (Lanius et al., 2012; McFarlane, 2013). However, there are several large-scale clinical trial studies finding comparable efficacy for standard empirically supported treatments for PTSD (e.g., prolonged exposure, cognitive processing therapy) for those high and low in dissociation (Hagenaars, van Minnen, Hoogduin, 2010; Jaycox, Foa, & Morral, 1998; Resick et al., 2012; Speckens, Ehlers, Hackmann, & Clark, 2006; Taylor et al., 2001), raising doubts that PTSD treatment response is universally affected by dissociative reactions. In addition, it is important to note that several studies have shown that dissociation tends to decrease with standard PTSD treatments (Chard, 2005; Resick et al., 2012; Zlotnick et al. 1997), further suggesting that specialized approaches to dissociation may not be necessary. Taken together, it remains unclear if the dissociative subtype will advance clinical interventions for PTSD.

Potential legal implications

Overall, the addition of the dissociative subtype is surprising given that there appeared to be insufficient evidence to justify its inclusion prior to the DSM-5 (Friedman, Resick, Bryant, & Brewin, 2011). Nevertheless, the inclusion of the dissociative subtype in DSM-5 is likely to have several implications. Its inclusion may spur research on biological and treatment mechanisms of PTSD and dissociative reactions (Lanius et al., 2012). However, it may also have unintended negative consequences in terms of legal implications. The known overlap of dissociative symptoms with other disorders, such as BPD (Pietrzak, Goldstein, Southwick, & Grant, 2011; Wolf et al., 2012) and dissociative disorders themselves (such as DSM-5 depersonalization/derealization disorder) may lead to diagnostic inconsistencies. In addition, the dissociative reactions specifically included in DSM-5, depersonalization and derealization, have implications for veracity of witness testimony and disability claims, given the potential impact of dissociative experiences on memory, symptom reporting, and emotional display. In forensic settings, a diagnosis of a dissociative subtype of PTSD characterized by cognitive impairment and difficulties with attention and memory may be interpreted to mean that the individual is less able to accurately report distress or traumatic details and may result in testimony being less believable. Alternatively, the inclusion of a dissociative subtype may legitimize dissociative reactions and thus make it more acceptable to see these types of presentations. Finally, the dissociative subtype may affect rates and prevalence of malingering for disability or financial gain. These reactions allow for

individuals to claim difficulties in remembering and awareness and may make it easier to fabricate memories and have them considered valid. In cases where this is applicable, it may indicate increased importance on external corroboration of traumatic event details, which can be burdensome and difficult to achieve.

Conclusions

The changes in PTSD from DSM-IV to DSM-5 may be best conceptualized as a relatively large number of relatively minor changes, with a cumulative effect that remains unclear. The diagnostic criteria modifications and language shifts from the DSM-IV to DSM-5 will likely result in some confusion in applying the criteria and differential diagnosis. Although the DSM-5 working group committee dealing with PTSD strived to increase specificity and clarity of the diagnosis, some of the changes and wording are open to varying interpretations and have a variety of potential legal implications. These changes in the DSM-5 and their possible negative consequences include the definition of what constitutes a traumatic stressor, determining primary or differential diagnoses, increased ease of fabricating or exaggerating the symptoms for secondary gain motives, and improper linking of symptoms to causes of behavior. Although the DSM-5 attempts to more clearly define an objective traumatic stressor, the interpretation for indirectly experienced or confronted events is still vague and open to a variety of interpretations. The inclusion of additional symptoms commonly occurring in other disorders such as depression, BPD, and dissociative disorders, may further make differential diagnosis difficult and inadvertently increase rates of diagnostic co-occurrence and perceived clinical complexity. Malingering, as with the DSM-IV, will remain an issue and potentially be made easier with the addition of new non-specific symptoms, increased number of potential combinations of symptoms that constitute a PTSD diagnosis, retention of the symptom of psychogenic amnesia, and the inclusion of a dissociative subtype. Finally, some of the symptom criteria may be interpreted, particularly in legal contexts, as more indicative of causation of behavior or more blaming than previous wording. This is particularly the case for the newly added symptoms of reckless behavior and distorted blame of self or others for causing the traumatic event or for resulting consequences. These symptoms will likely be problematic in legal settings in which understanding realistic responsibility is of utmost importance.

One of the implied goals of the shift of PTSD out of the anxiety disorders and the addition of new diagnostic criteria is to spur additional research on PTSD and related factors (Friedman et al., 2011). With this goal in mind, it is perhaps not surprising, as reviewed above, that some of the revisions are supported by mixed or limited empirical findings and are driven by expert opinions of the emerging research. As the title of this article suggests, the construct of PTSD is evolving and changing. The utility of these changes as reflected in the DSM-5 is not known. There is a real concern that the changes in DSM-5 will increase the psychobiological heterogeneity of people who now qualify for a diagnosis of PTSD and that this will obscure scientific advancement in the traumatic stress field (McNally, 2009). This changing definition of PTSD occurs within a broader context of serious concerns about the reliability and validity of DSM diagnoses and even larger debate about the nature of mental disorders themselves. Regardless of these debates, many experts would agree that there are observable psychobiological reactions that occur after higher magnitude traumatic events and that these reactions can persist over months and years for some trauma survivors. These experts would also agree that the persistence of these reactions can dramatically affect a trauma survivors' family, social, and work functioning and their overall quality of life. Thus, our scientific debates do not alter the real consequences of trauma exposure in cases in which patient presentation is deemed valid.

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