Review

A historical review of trauma-related diagnoses to reconsider the heterogeneity of PTSD

Jennifer DiMauro, Sarah Carter, Johanna B. Folk, Todd B. Kashdan*

George Mason University, United States

ABSTRACT

Based on the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders, there are 636,120 ways for an individual to qualify for a diagnosis of posttraumatic stress disorder (PTSD) (Galatzer-Levy & Bryant, 2013). To unravel this heterogeneity, we examine the historical trajectory of trauma-related diagnoses. Our review addresses four traumas (i.e., combat, natural disaster, life-threatening accident and sexual assault) that have contributed the most to conceptual models of PTSD. Although these trauma types are all subsumed under the same diagnostic label, our literature review indicates that the psychological consequences of different traumatic experiences are traditionally studied in isolation. Indeed, most research addresses hypotheses regarding specific trauma types using samples of individuals selected for their experience with that specific event. We consider the possibility that PTSD is not a single, unified construct and what this means for future research and clinical applications.

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* Corresponding author at: George Mason University, Department of Psychology, MS 3F5, Fairfax, VA 22030, United States. Tel.: +1 703 993 1384; fax: +1 703 993 1359.
E-mail address: tkashdan@gmu.edu (T.B. Kashdan).

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1. Introduction

There are currently 636,120 ways for an individual to meet Diagnostic and Statistical Manual of Mental Disorders (5th edition) (American Psychiatric Association, 2013) criteria for a diagnosis of posttraumatic stress disorder (PTSD) (Galatzer-Levy & Bryant, 2013). This is a staggering number that exemplifies the problem of using a broad set of criteria to identify whether an individual qualifies for a specific diagnosis. In the pursuit of specificity and reliability, the diagnosis of PTSD loses its meaning in a fog of heterogeneity. How did we get to this point? One of the original authors of the criteria for PTSD criteria described how she wrote the definition of PTSD for DSM-III based on [her] recognition that a variety of stressors can induce a final common pathway that is expressed by a variety of autonomic/physiological, cognitive, and emotional symptoms that occur in response to a severe stressor (Andreasen, 2011, p. 242).

Has this approach created a disorder too broad for optimal clinical utility? In this paper, to better understand how the PTSD diagnostic category evolved to its current incarnation, we will 'look backward to look forward.' The PTSD criteria have changed and expanded as a result of the recognition of new trauma types and the inclusion of former trauma-related disorders. For simplicity, we will focus only on the presentation and conceptualization of PTSD in populations of American adults.

Our review addresses the four traumas (i.e., combat, natural disaster, life-threatening accident, sexual assault) that have contributed the most to the development of PTSD conceptualizations. Combat has long been recognized as an event that may result in adverse psychological reactions. Natural disasters and life-threatening accidents were also identified as easily recognizable traumas that can trigger trauma-related syndromes. Finally, the recognition of sexual assault as the traumatic event most likely to trigger PTSD in survivors further broadened the category to include less visible, interpersonal traumas (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). Ultimately, the purpose of this review is to discuss the origins of the current heterogeneity of the PTSD diagnostic category and propose future directions based on our findings.

1.1. Defining trauma: the evolution of criterion A

Perhaps the most crucial changes to PTSD relate to the definition of a traumatic event (see Table 1). Criterion A, the qualifying traumatic event that set psychological disorder into motion, has changed with each version of the DSM. In DSM-III, the definition of a traumatic event was defined as "an event outside the range of usual human experience and that would be markedly distressing to almost anyone" (APA, 1980, p. 238). This broad, vague definition was problematic, and its application to research and clinical work untenable. Defining normality and distress based on the perceptions of ‘almost anyone’ as opposed to objective criteria allowed researchers and clinicians to interpret and apply the diagnostic category as strictly or broadly as preferred; furthermore, this definition failed to prioritize the subjective experience of the individual seeking evaluation or treatment.

In the next iteration, DSM-IV Criterion A1 explicitly defined a traumatic event as occurring when a 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” (APA, 1994, pp. 427–428). A second qualifier, Criterion A2, required that “the person’s response involved intense fear, helplessness, or horror” was also added. These clarifications in DSM-IV created a firmer foundation for the diagnostic category by including both objective (e.g., the circumstances of the event) and subjective (e.g., the emotional reaction to the event) considerations.

In the most current diagnostic manual, DSM-5, Criterion A is more explicit but returns to a broader definition. An individual must have experienced exposure to ‘actual or threatened death, serious injury, or sexual violence’ in one or more of the following ways:

1. Directly experiencing the traumatic event(s).
2. Witnessing, in person, the event(s) as it occurred to others.
3. Learning that the traumatic event(s) occurred to a close family member or close friend... [or] 4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s)... (APA, 2013, p. 271).

Of note, Criterion A2 no longer includes specific emotional responses to the event (i.e., intense fear, helplessness, and horror). Indirect, non-professional exposure through electronic media, television, movies or pictures has also been excluded as a qualifying traumatic event. This change helped reign in the diagnostic category as the traumatic event must now have some direct personal impact, whether it be participation in or presence during a traumatic event, or having that traumatic event seriously impact one’s life through a close other. Research published since DSM-IV suggests that ‘secondary’ and ‘vicarious’ trauma should be parsed out and conceptualized and treated independently (e.g., Figley, 1995; Pearlman & Saakvitne, 1995). Thus, there is some evidence for continuing to narrow the definition of ‘accepted’ traumatic events to increase the clarity and clinical utility of research and treatment for individuals diagnosed with PTSD.

To fully appreciate the impact and evolution of diagnostic changes, we must harken back to the earliest conceptualizations of trauma-related disorders. There is a separate history for each of the four aforementioned trauma types: combat, natural disaster, life-threatening accident, and sexual assault. Although there have been mention of trauma related symptoms as far back as Homer’s Iliad and Odyssey, the Civil War presented some of the first semicohesive diagnostic categories (e.g., Nash Silva, & Litz, 2009), and is thus where our review will begin.

2. The evolution of trauma-related diagnoses

2.1. Combat

The majority of trauma-related research prior to the creation of the DSM focused on mysterious somatic symptoms soldiers often reported following combat. These diagnoses, explored in detail below, offer insight into the iterative nature of clinical science and practice.

2.1.1. Disordered palpitation of the heart

One of the first American documentations of a pathological reaction to trauma emerged during the Civil War (1861–1865). This reaction was termed disordered palpitation of the heart (also known as irritable heart or soldier’s heart), characterized by the primary complaint of unexplained heart palpitations (Jones & Wessely, 2007). These palpitations were frequently coupled with exhaustion and excessive alcohol and tobacco use. Although disordered palpitation of the heart is widely considered to be one of the first combat-related diagnoses, relatively few cases were reported during the Civil War. Even when broadening outside of disordered palpitation of the heart, few psychiatric, combat-related diagnoses were reported by doctors during this time (Frueh & Smith, 2012). Despite these low rates, the suicide rate for Union soldiers approximately doubled in frequency after the war’s end, indicating there were indeed psychological reactions, even if underreported (McNally, 2012). Despite the low reported frequency, the mysterious heart symptoms still captured the interest of the medical
community and several etiologies were contemplated, including a personal weakness, being stationed in an overly hot and sunny climate (Jones & Wessely, 2007), exertion during deployment (Hartshorne, 1864), and the weight distribution of a soldier’s equipment (Maclean & Carow, 1864). The implication that post-combat, psychiatric reactions are due potentially to a weakness in the soldiers or their training continues to be felt by current service members (Costos, 2013). Thus, the stigma associated with suffering from post-combat symptoms representing a personal weakness has yet to fade (Nash et al., 2009).

2.1.2. War neurasthenia

A second diagnosis of trauma-related symptoms in soldiers was attributed to a vague and often unspecified weakness in the nervous system. The term war neurasthenia was conceptualized as a “functional impairment of nerve sense and motor power, associated with psychical symptoms akin to nervous shock of those observed after railway accidents” (Finucane, 1900: p. 807). This diagnosis was similar to disordered palpitation of the heart in that it was often used as a catch-all for unexplained symptoms in young soldiers with no apparent physical wounds (Bogacz, 1989). An editorial in

<table>
<thead>
<tr>
<th>DSM-III</th>
<th>DSM-IV</th>
<th>DSM-5</th>
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<tbody>
<tr>
<td>Exposure</td>
<td>Experienced an event outside the range of usual human experience and that would be markedly distressing to almost anyone.</td>
<td>Exposed to traumatic event (TE) in which: 1. 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. 2. The person’s response involved intense fear, helplessness, or horror.</td>
</tr>
<tr>
<td>Re-experiencing</td>
<td>Traumatic event (TE) persistently re-experienced in 1+ of following ways: 1. Recurrent and intrusive, distressing recollections of the event. 2. Recurrent distressing dreams of the event. 3. Sudden acting or feeling as if the traumatic event were recurring (including “flashback” or dissociative episodes, whether or not intoxicated). 4. Intense psychological distress at exposure to events that symbolize or resemble an aspect of the traumatic event.</td>
<td>TE persistently re-experienced in 1+ of the following ways: 1. Recurrent and intrusive distressing recollections of the event. 2. Recurrent distressing dreams of the event. 3. Acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience; illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated). 4. Intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event. 5. Physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.</td>
</tr>
<tr>
<td>Avoidance</td>
<td>Persistent avoidance of stimuli associated with the trauma or numbness of general responsiveness, indicated by &gt;2 of following: 1. Efforts to avoid thoughts or feeling associated with the trauma. 2. Efforts to avoid activities or situations that arouse recollections of the trauma. 3. Inability to recall an important aspect of the trauma. 4. Markedly diminished interest in significant activities. 5. Feeling of detachment or estrangement from others. 6. Restricted range of affect. 7. Sense of foreshortened future.</td>
<td>Persistent avoidance of stimuli associated with the trauma and numbness of general responsiveness (not present before the trauma), indicated by &gt;2 of following: 1. Efforts to avoid thoughts, feelings, or conversations associated with the trauma. 2. Efforts to avoid activities, places, or people that arouse recollections of the trauma. 3. Inability to recall an important aspect of the trauma. 4. Markedly diminished interest or participation in significant activities. 5. Feeling of detachment or estrangement from others. 6. Restricted range of affect. 7. Sense of a foreshortened future.</td>
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Table 1
Diagnostic criteria of PTSD from DSM-III to DSM-5.
The Lancet described the disorder as follows: “This nebulous zone shelters many among the sad examples of nervous trouble sent home from the front” (Mott, 1916, p. 331). The common critiques of War Neurosis as a catch-all diagnosis is a criticism also leveled against modern-day PTSD (McPhedran, 2014), again indicating that modern perspectives on post-combat reactions parallel those from over a century ago.

2.1.3. Shell shock

With the onset of World War I (WWI), more soldiers began to exhibit unexplained somatic symptoms following exposure to combat. Unsatisfied with previous conceptualizations, the medical community began to hypothesize that, rather than a result of an ambiguous functional impairment in the nervous system, these symptoms might be due to compression and decompression in the brain caused by being in the proximity of an explosion (Mott, 1916). Accordingly, during WWI, the more organized category of shell shock replaced the ambiguous and shifting symptoms of war neurosis in the medical literature. Combat exhaustion and battle fatigue were also often used. Although shell shock was an improvement compared to its predecessors due to its inclusion of specific psychiatric symptoms, it proposed vague neurobiological mechanisms and relied on simplistic etiological models. Soldiers diagnosed with shell shock reported a variety of somatic symptoms similar to disordered palpitation of the heart and war neurasthenia, including chest pain, heart palpitations, tremors, fatigue, and even paralysis (Micali & Lerner, 2001). As the diagnosis of shell shock gained prominence, similar to previous post-combat disorders this condition became a catch-all for otherwise unexplained symptoms for soldiers.

Shell shock is most notable for being the first combat-related disorder to include explicit and common psychiatric symptoms, such as jumpiness, nightmares, and agitation (Micali & Lerner, 2001). Importantly, some in the medical community hypothesized that the etiology was psychological rather than physical in nature:

In the vast majority of cases of shell-shock, the exciting cause is some special psychic shock. Horrible sights are the most frequent and potent factor in the production of this shock. Losses and the fright of being buried are also important in this respect (Wiltshire, 1916, p. 1212).

For the first time, this psychological etiology began to take hold. Kardiner (1941) also noted that veterans commonly experienced flashbacks and nightmares when presented with reminders of combat and showed symptoms that are similar to current definitions of hypervigilance, depression, and paranoia. These soldiers continued to suffer from psychological symptoms well after combat had subsided (Southborough, 1920). Thus, Shell Shock represents a

<table>
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<td><strong>DSM-III</strong></td>
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<td>Arousal</td>
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<td>Duration</td>
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<td>Impairment</td>
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dramatic shift toward a psychological explanation of post-combat symptoms that offered a foundation from which modern day PTSD is based.

In the aftermath of WWI, more than 65 thousand soldiers relied on a pension contingent on their diagnosis of shell shock; and after World War II (WWII), an unprecedented number of service members exhibited symptoms of shell shock. In fact, as of 1946, almost 3% of WWII veterans (N ~ 450,000) were receiving government-assisted disability benefits due to neuropsychiatric diseases (Dean, 1997). As with both the Civil War and current military conflicts, many saw this pension as an incentive to construct or exaggerate post-combat symptoms (i.e., secondary gains). In response, government inquiries and policy recommendations of the time suggested that pensions awarded to those with psychiatric symptoms be lower than pensions offered to soldiers with physical injuries (Jones, Palmer, & Wessely, 2002). This ubiquity of soldiers receiving pensions led to shell shock becoming a significant aspect of contemporary social consciousness. Accordingly, the disorder was often featured in the media, and the public was spurred to debate the potential causes of the disorder (Bogacz, 1989). The explanation of shell shock as a psychological condition gained traction and mainstream popularity, leading to nicknames such as “wounds of consciousness” and “a wounded mind” (Bogacz, 1989). Similar to previous conflict, however, many continued to believe these post-combat symptoms were due to an innate personal weakness (Mosse, 2000).

Since the etiology of shell shock was considered psychological rather than medical, many in the medical community during and after WWI ascribed the disorder to a “deficiency of will-power” (Clark, 1981, p. 299) to be “… looked upon as a form of disgrace to the soldier” (Southborough, 1922, p. 50). Given the increased prevalence of these disordered responses following WWII, however, combat exhaustion (or battle fatigue) came to be recognized as a condition that could be triggered even in well-respected soldiers of sturdy will-power and those who had never been in the proximity of an explosion (e.g., Swank, 1949).

2.1.4. Gross stress reaction

At the advent of the DSM-I (1952), combat-related stress fell under the umbrella of gross stress reaction (GSR). This diagnostic category was the first that sought to knit together common reactions to extreme stressors. The DSM-I presented reactions to trauma as short-lived disorders that quickly dissipated even if left untreated. This conceptualization led psychiatrists to categorize GSR as a transient situational personality disorder. Thus, if an individual’s reaction to trauma persisted for a significant period of time, he or she met criteria for a different category of diagnosis. In essence, then, GSR was not thought to reflect any underlying deficiencies or personality disturbance, but was simply a brief ego disturbance caused by a present traumatic event. The original DSM-I diagnostic criteria for GSR were as follows:

Under conditions of great or unusual stress, a normal personality may utilize established patterns of reaction to deal with overwhelming fear. The patterns of such reactions differ from those of neurosis or psychosis chiefly with respect to clinical history, reversibility of reaction, and its transient character. When promptly and adequately treated, the condition may clear rapidly. It is also possible that the condition may progress to one of the neurotic reactions. If the reaction persists, this term is to be regarded as a temporary diagnosis to be used only until a more definitive diagnosis is established. This diagnosis is justified only in situations in which the individual has been exposed to severe physical demands or extreme emotional stress, such as in combat or in civilian catastrophe (fire, earthquake, explosion, etc.). In many instances the diagnosis applies to previously more or less “normal” persons who have experienced intolerable stress (APA, 1987, p. 40).

Thus, the transience of the symptoms was just as critical to a diagnosis of GSR as the specific symptoms themselves. Although previous conceptualizations of post-combat symptoms had not stipulated that the symptoms are inherently long-lasting, the overwhelming number of soldiers supported by pensions suggested at least some in the medical community believed the symptoms could be enduring. With explicit claims that the GSR is typically transient in nature, the military and the public were lead to believe that the presence of long-term, post-combat symptoms are caused by inadequacy and weakness in a soldier as opposed to psychopathology.

The creation of GSR created a large issue within the psychiatric community. During the 1960s – two decades after the end of World War II hostilities – a large minority of WWII veterans continued to exhibit disordered reactions to combat-related trauma. As such, they did not meet criteria for GSR, though they clearly suffered from unresolved psychological distress as a result of their combat experiences. This left veterans with often debilitating symptoms, yet no diagnosis within the DSM (Archibald & Tuddenham, 1962, 1965). It was during this period that researchers first explicitly acknowledged that disordered reactions to trauma could be chronic and persist long after the traumatic event (Archibald & Tuddenham, 1962, 1965). This revised conceptualization illuminated the heterogeneous, temporal nature of post-combat symptoms. As the medical community began to assess post-combat symptoms as potentially chronic, new symptoms were highlighted. Symptoms of a chronic reaction included startle reactions, sleep difficulties, dizziness, momentary blackouts (which may correspond to modern dissociative symptoms), and avoidance of combat related activities. Researchers noticed that if left untreated, individuals’ symptoms often worsened over time, suggesting the need for more comprehensive treatment plans.

As researchers in the 1960s began to expand their understanding of post-combat symptoms, they began to notice the similarities between reactions to combat and other traumatic events. For instance, a study conducted during this time compared a group of WWII veterans to concentration camp survivors. These two groups demonstrated similar patterns of traumatic symptomatology: depression, restlessness, irritability, excessive jumpiness, easily fatigued, waking during the night, difficulty concentrating, and sweaty hands (Chodoff, 1963; Strom et al., 1961). Although the diagnosis of GSR had flaws, it aided the medical community in viewing stress reactions as a cohesive condition rather than disparate symptoms.

2.1.5. Transient situational disturbances

In 1968, the American Psychiatric Association (APA) created DSM-II, with GSR being replaced by a Transient Situational Disturbance (TSD) diagnostic category. This disorder encompassed a broader range of stressors and de-emphasized the need for them to be extremely intolerable or unusual. Although combat-related trauma was subsumed under this diagnosis, trauma-related psychiatric difficulties were minimized (Al-Saffar & Borga, 2005). This change may be a result of limited active American military involvement during its creation (Andreasen, 1980). Despite the existence of theory and research on the persistence of post–combat symptoms, the DSM-II appeared to revert back to the inherent short-term duration of these symptoms. When post-combat symptoms were not short-lived, in DSM-II, soldiers would receive the diagnosis of Anxiety Neurosis, a personality disorder (Al-Saffar & Borga, 2005). This particular decision-rule was justified by the belief that soldiers with persistent post–combat symptoms suffer from a life-long personality disorder, exacerbated by combat. Once again, the framework behind this disorder perpetuated the
notion that soldiers who suffer from post-combat symptoms do so because they are innately weak and damaged.

2.1.6. Post-Vietnam syndrome

In the wake of the Vietnam War, nearly one quarter of all Vietnam War veterans (N ~ 700,000) required some form of psychological assistance (Crocq & Crocq, 2000). The cluster of extensive trauma symptoms exhibited by these individuals was labeled as Post-Vietnam syndrome. One preeminent PTSD researcher at the time argued that the specificity of the disorder being tied to Vietnam would lessen its well-established validity and significantly narrow its generalizability (Andreasen, 2011). Supporting this concern, researchers found evidence for the similarity of veterans’ symptoms across wars (Thienes-Hontos, Watson, & Kucala, 1982). The high prevalence and severity of the disorder provided fodder for an increase in resources devoted to the study and treatment of combat veterans returning to civilian life.

2.1.7. Posttraumatic stress disorder

In a response fueled by the sociopolitical climate following the Vietnam War (Jones & Wessely, 2007), the diagnosis of PTSD was added to DSM-III. Because of the remarkable resemblance of post-combat symptoms from Vietnam and prior wars, PTSD came to be conceptualized as a disorder generalizable to combat veterans. Concurrently, researchers also began to recognize PTSD symptoms in non-combatants who served in the Vietnam War, particularly those who provided medical services to wounded soldiers (Dean, 1997). The recognition that individuals not directly involved in combat could develop PTSD symptoms significantly impacted how psychologists conceptualized the diagnosis.

These emerging views of post-combat symptoms lead some to advocate for the recognition of PTSD as a distinct diagnosis from other transient or adjustment-related disorders (Scott, 1990). With the creation of PTSD, an individual had to experience a stressor that could be defined as traumatic or extreme (see Table 1). With PTSD-triggering events defined as occurrences “outside the range of usual human experience and that would be markedly distressing to almost anyone” (APA, 1980, p. 238), the medical community returned to the position that these symptoms could not be described as a transient, short-term reaction. Normal adverse reactions were short-term, but the disorder occurred when these symptoms became long-lasting. Although this did not eliminate the stigma regarding post-combat symptoms being caused by a personal weakness, this attitude lessened.

Although the psychiatric community was successful in expanding Post-Vietnam syndrome to PTSD, which encompassed all warfare and other traumatic events, the criteria were based largely on research in combat survivors. Thus, while the diagnosis included other traumas, the criteria were not designed to detect disordered reactions related to other traumatic events such as life-threatening accidents or sexual assault; accordingly, individuals with disordered reactions to other types of trauma often did not meet the DSM-III criteria for PTSD (Scott, 1990). In fact, despite the broadening of PTSD, a sizeable number of psychologists and psychiatrists considered PTSD to be a diagnosis unique to Vietnam veterans, and believed it could not be generalized— even to veterans of other wars (Dean, 1997). With the growing recognition that multiple trauma types could elicit traumatic reactions, additional events began to be recognized in the empirical literature and symptoms diversified to accommodate heterogeneous presentations. The earliest among these non-combat trauma types were natural disasters and life-threatening accidents.

2.2. Natural disasters

The empirical literature and diagnostic criteria have failed to consistently distinguish between individual traumatic events and disasters—which are collectively experienced and can be termed ‘mass traumas.’ An incident can be classified as a disaster if it is ‘large’ in scale (i.e., affected a considerable number of people regardless of loss of life) and its consequences are ‘significant’ (i.e., resulted in quantifiable mental and/or physical health outcomes among the affected population) (Neria, Gross, & Marshall, 2006). In terms of the prevalence of PTSD following natural disasters, we turn to a review of 177 articles with 130 distinct samples, and over 50,000 trauma survivors of 80 distinct disasters (Norris et al., 2002). Psychological problems were identified in 74% of the samples, with PTSD or posttraumatic stress found in 65% of the samples (Norris et al., 2002). As with all traumas, consequences of disasters can include a wide range of psychopathology (e.g., generalized anxiety disorder, major depressive disorder), but PTSD is the most commonly studied form of psychopathology in the aftermath of disasters (Galea et al., 2005; Norris et al., 2002).

Accounts of individual responses to disaster are found throughout history, with some of the more notable examples including Pepys’ (1665) accounts of the Plague and the Great Fire of London, and James’ (1611) reactions to the San Francisco earthquake of 1906. Similar anecdotal accounts of trauma can be found throughout the twentieth century, including reports of the Cocoanut Grove fire of 1942 (Adler, 1943; Cobb & Lindeman, 1943), the Kansas City River flood of 1951 (Menninger, 1953), the 1957 marine explosion on the Delaware River (Leopold & Dillon, 1963), and the Skopje earthquake of 1963 (Popović & Petrović, 1964). These individual accounts, albeit prone to the subjective bias of the writers, provide insight into psychological reactions to disaster across time. In Pepys’ account of his reaction to the Great Fire of London, he chronicles his symptoms, which lasted for approximately eight months and included anxiety, insomnia, mild depersonalization, memory impairment, nightmares, guilty, and exaggerated responses to trauma-related cues (Daly, 1983). Although these symptoms were comparatively milder than others in the aftermath of trauma, the reaction described by Pepys parallels many symptoms central to the modern DSM diagnostic criteria for PTSD (e.g., DSM-IV-TR).

Exposure to a disaster is qualitatively distinct from other trauma types, including combat. For one, individuals typically experience disasters on a more collective level, with entire communities often being affected. As a result it becomes difficult to distinguish those who are victims of the trauma from those who are impacted more distally. Degree of exposure to a single natural disaster event can vary greatly among those in the same community (e.g., ranging from being trapped in the rubble of an earthquake to hearing about a relative losing their home in the same earthquake), which in turn relates to psychological outcomes such as PTSD symptoms. Individuals directly exposed to the disaster have the highest prevalence of PTSD, but rescue workers and first responders also experience higher levels of PTSD compared to the general population (e.g., CDC, 2004; Fullerton, Ursano, Reeves, Shigemura, & Grieger, 2006; Sims & Sims, 1998).

In addition to the challenge of identifying the survivors of the natural disaster and subsequently the PTSD prevalence rates, the culture of the community in which the disaster occurred is intricably linked with presentation profiles (e.g., Perilla, Norris, & Lavizzo, 2002). For instance, the social cohesion of a community offers a natural form of resilience against pathological reactions. Despite the notion that diagnostic taxonomies such as the DSM are not always universally applicable across cultures, the same symptoms may be present across cultures but be expressed in different ways (e.g., Van Rooyen and Nqweni, 2012). Due to the expansive literature on culture and PTSD and our focus on American issues and
DSM applications, however, cultural considerations are outside the scope of the current paper.

Another difference from combat is that the majority of disasters are caused by natural agents (e.g., hurricane, tornado) and do not involve human wrongdoing. Research suggests that the degree of human responsibility for the cause of the disaster predicts variation in post-disaster psychosocial functioning (Rubonis & Bickman, 1991). Some studies have found that higher levels of stress are associated with man-made disasters due to the availability of a target for blame and anger (e.g., Baum, Fleming, & Davidson, 1983), yet other studies have shown that psychopathology is lower when the cause of the disaster is identifiable (i.e., there is a greater degree of closure and greater confidence in preventing future problems). These conclusions should be considered cautiously because there is a differential sampling bias with man-made technological disasters compared with natural disasters. For instance, man-made disasters affect a clear subset of individuals, whereas it can be more difficult to isolate those impacted by a natural disaster. As a result, it is important to consider whether a collective disaster has different psychological implications than individual or interpersonal traumas.

Unlike combat, life-threatening accidents, and sexual assault, psychological trauma stemming from natural disasters has never been included in its own diagnosis. Exposure to disasters first qualified as a trauma in DSM-I (1952), when individuals exposed to a civilian catastrophe (e.g., fire, earthquake, explosion) or combat and who exhibited a disordered reaction to the trauma could be diagnosed with Gross Stress Reaction. In DSM-II (1968), however, the diagnostic category that best captured the psychological consequences of traumatic experiences changed to transient situational disturbances and natural disasters were not included as an example of a qualifying traumatic event. The fact that natural disasters did not appear as an example, particularly given the occurrence of many worldwide traumatic events between the publication of DSM-I and DSM-II, was a diagnostic backslide.

It was not until DSM-III that a traumatic experience was defined as a recognizable stressor that would evoke significant symptoms in almost anyone. In DSM-III-TR (1987), Criterion A was further modified to specify that a traumatic event is an experience that is outside the range of the usual human experience. Since this time, subsequent changes in Criterion A have continued to include what individuals often experience during a natural disaster; see Table 1 for an outline of changes to Criterion A across DSM iterations.

With the expansion of the DSM-5 criteria, additional degrees of exposure to natural disasters have been captured as qualifying stressors. For example, repeated or extreme indirect exposure to aversive details of the event(s), usually in the course of professional duties (e.g., first responders), qualifies as a Criterion A stressor. In addition, witnessing a traumatic event (e.g., watching a tornado tear through a school full of children), and indirect exposure to a traumatic event such as learning that a close relative or close friend was exposed to a traumatic event, which may have involved violent or accidental death (e.g., learning that a close friend was killed when a building collapsed on them during an earthquake). The expansion of Criterion A to include these stressors lends credence to the psychological impact of differing degrees of exposure to a natural disaster. The scientific impact and clinical utility of these new trauma additions (e.g., witnessing firsthand an accident in which others were seriously injured or killed; emergency services responding to a natural disaster, accident, or violent crime; working as a rape counselor and hearing extreme details regarding the events) and whether of the amount of exposure produce qualitatively similar PTSD symptom profiles in victims remains to be seen.

2.3. Life-threatening accidents

The literature regarding psychological responses to life-threatening accidents has been historically dominated by transportation accidents. This is not surprising, as current statistics suggest that most Americans will be involved in a motor vehicle accident (MVA) at some point in their lifetime (Kessler et al., 1995). Thus, this area of research has been the most commonly studied type of life-threatening accident, as well as the most influential in the development of life-threatening accidents as a legitimate antecedent to PTSD.

Railway accidents became prevalent during the expansion of railroads in the 1800s. The term “railway spine” was coined in the late 19th and early 20th century to describe passengers’ post-traumatic responses to increasingly common railroad accidents. John Eric Erichsen (1866) was the first to publish a medical study of railway spine in his book On Railway and Other Injuries of the Nervous System. He described railway spine as “concussions of the spine and spinal cord” that were “sustained by passengers who have been subjected to the violent shock of a railway collision” (Erichsen, 1866, p. 128). Additional and often unexplained symptoms included physical paralysis, numbness, or tingling. Some patients also experienced depression, memory loss, nervousness, hypervigilance, loss of concentration, nightmares, and trouble falling asleep (Erichsen, 1866). These cases closely mirror diagnostic criteria of PTSD in DSM-III, DSM-IV, and DSM-5. Erichsen emphasized the need to study these secondary phenomena that developed after the collision, as surgeons were unable to accurately identify the above symptoms. He attributed this difficulty to the absence of outward physical wounds and the slow development of symptoms following the event, which made it particularly difficult to establish a causal link between the accident and the resulting symptoms.

The diagnosis of railway spine likely developed from writings on spinal concussion; surgeon Sir Benjamin Brodie (1837), under whom Erichsen studied, established a model of spinal concussion that accounted for unexplained symptoms following a blow to the body. A rapid increase in railway construction, and a subsequent increase in railway accidents, led medical professionals and the general public to search for explanations of these novel symptoms. Erichsen (1866) extended this model to develop his theory of railway spine, but argued that these symptoms could occur following situations other than railway accidents. In fact, he argued against using the term “railway spine” because it too narrowly restricted disordered reactions to trauma. Erichsen wrote that

Though the intense shock to the system that results from these accidents naturally and necessarily gives to them a terrible interest and importance, do not for a moment suppose that these injuries are peculiar to and are solely occasioned by accidents that may occur on railways. There never was a greater error (Erichsen, 1866, p. 126).

In short, he claimed that railway accident injuries were not a novel type of injury. Rather, they brought awareness and attention to an already existing medical issue.

Erichsen likewise illustrated examples of individuals experiencing similar symptoms following accidents that occurred well before railways were created. As one case example, he presented the history of a French military officer who was in a catastrophic carriage accident in 1761. Though the officer’s physicians treated him for his physical symptoms, three years later he continued to experience unexplained symptoms. One physician described him as a naturally “handsome, middle-aged, sanguine man, of a cheerful disposition and an active mind,” though he “appeared much emaciated, stooping, and dejected” (Erichsen, 1866, p. 132). Erichsen noted the following specifics about this case: there was no evidence of blow
upon the spine; no immediate inconvenience was felt, except from the bruise on the shoulder and hand; symptoms of paralysis did not manifest until several months after the injury; paralysis symptoms were first just in the left arm and sporadic parts of speech, and slowly progressed to other body parts; and the patient's general health gradually decayed until he eventually died four years after the accident. He also highlighted several other similar cases, all of which contained a common theme: an individual experienced a life-threatening accident (e.g., falling off a ladder, a transportation accident), was treated for medical injuries, and continued to display symptoms that were unexplainable by physical injuries.

Growing concern over the safety of railways, an increasing number of railway accidents, and multiple cases of unexplained symptoms following injuries prompted authors at *The Lancet* to publish an eight-part report titled “The Influence of Railway Travelling on Public Health” (*Solly, 1862*). *The Lancet* made clear distinctions to what they referred to as “primary” and “secondary” effects of railway accidents. Primary effects were obvious physical injuries (e.g., broken bone, burn) that were easily identified and treatable. Secondary effects were described with a broad range of symptoms including “giddiness,” “pains in the back and head,” “tingling and numbness of the extremities, local paralysis, paraplegia, functional lesions of the kidney and bladder,” and “slowly ensuing symptoms of intellectual derangement” (*Solly, 1862*, pp. 156–157).

*The Lancet* report fueled the debate over the nature of the shock and how it determined an individual's response. For example, some attributed the shock to the suddenness of the jolts during a collision. Others argued the degree of violence experienced during the accident determined subsequent symptomatology. Still others contended that individuals did not give themselves adequate time to heal after the accident, leading to maladjustment. Those in the former two groups considered their research from a biomedical perspective, and their clinical work reflected this in their approach to treatment (e.g., addressing only observable physical ailments). Those in the latter group began to observe, however, that individuals who rested adequately and were given time to process the traumatic accidents often improved without any medical interventions. Accordingly, their recommendations for bed rest were not unlike those given to soldiers at the turn of the century (*Bogacz, 1989*). Interestingly, this controversy over etiologies reflected a shift in the medical field from conceptualizing shock as a purely physical condition with some negative effects on mental health to a psychological condition that included somatic symptoms.

Accordingly, medical professionals gradually shifted away from physical explanations of symptoms towards psychological explanations. Whereas Erichsen asserted that psychological symptoms following accidents were a result of a physical injury to the spine, Herbert Page (1883) was critical of this theory, claiming that it was highly unlikely that the spine could be injured without any outward physical indications. Baffled by the seemingly unrelated manifestations of the traumatic injuries, surgeons began to explore psychological factors. For example, surgeon John Furneaux Jordan wrote that

The principal feature in railway injuries is the combination of the psychical and corporeal elements in the causation of shock... The incidents of a railway accident contribute to form a combination of the most terrible circumstances which it is possible for the mind to conceive. The vastness of the destructive forces, the magnitude of the results, the imminent danger to the lives of numbers of human beings, and the hopelessness of escape from the danger, give rise to emotions which in themselves are quite sufficient to produce shock, or even death itself... All that the most powerful impression on the nervous system can effect, is effected in a railway accident, and this quite irrespectively of the extent or importance of the bodily injury (*Jordan, 1873*, pp. 37–38).

With this theoretical shift in thinking came a shift in terminology: terms such as “fright,” “terror,” and “shock” were now being used to describe symptoms rather than simply emotions. The “severe mental impression of the fright” was considered to be the cause of psychological symptoms following a trauma. Such terms appeared in medical writings in the mid- and late-nineteenth century, half a century before Shell Shock was attributed to soldiers returning from WWI. Disordered reactions following railway accidents were also compared to “hysteric,” a term used to describe erratic physical and sexual behavior. Some scholars (e.g., *Erichsen, 1866*) outright rejected that hysteria was similar to railway spine, claiming that hysteria was specific to women. Many scholars also rejected the assertion that a healthy, successful businessman could suddenly experience such impairment in functioning due to something other than a physical injury. Others (e.g., *Page, 1891*) suggested that railway spine and hysteria were manifestations of the same psychological processes, such that an extreme emotional trauma could cause the impairing symptoms. This model was based on a contemporary understanding of the nervous system, and the belief that that shock, terror, and loss of control during an accident could abruptly disrupt and drain the resources of the nervous system, leading to a loss of control over bodily functions (*Page, 1897*).

Yet another shift came with the rapid development of motor vehicles and the subsequent spike in MVAs. This area of research first gained widespread attention during litigation and legal procedures (e.g., *Modlin, 1967; Parker, 1977*), which provided evidence that MVAs might lead to chronic disability and/or impairment. For example, *Parker (1977)* described 750 individuals who had been in MVAs, and reported that 45% suffered from headaches, 35% from anxiety, 35% from a phobia, 34% from irritability, 21% from depression, and 15% from insomnia. Interestingly, he also reported that headaches were more likely to occur in the absence of head injury. Similarly, *Hodge (1971)* described a “whiplash neurosis,” which included a fear of riding in cars following a car accident and a preoccupation with the resulting physical symptoms.

In one of the first published academic articles about PTSD and MVAs, Kuch, Swinson, and Kirby (1985) described 30 individuals who met DSM-III criteria for PTSD. They reported that the most frequent symptoms were intrusive and recurrent recollections, disturbed sleep, and the intensification of symptoms by exposure to situations that resembled the accident. *Hickling and Blanchard (1992)* expanded on this in their article of 20 case examples of those involved in MVAs, including a detailed list of each individual's presenting symptoms.

The ubiquitous nature of MVAs on American roads makes it difficult to determine if a MVA meets diagnostic criteria for the DSM definition of a stressor (*Hickling & Blanchard, 1992*). This was particularly relevant for DSM-III, when the definition of a traumatic event was an “event outside the range of usual human experience and that would be markedly distressing to almost anyone.” As such, initial research on PTSD from MVAs focused on prevalence rates (e.g., *Breslau et al., 1998; Helzer, Lee, & McEvoy, 1987; Norris, 1992*). MVAs were also included as a trauma that could cause PTSD in the 1994 National Comorbidity Survey (*Kessler et al., 1995*).

Interestingly, a large body of research has been conducted on the impact of accident severity. Most research has concluded that accident and injury severity are unrelated to PTSD development (e.g., *Bryant & Harvey, 1996; Davis et al., 2000; Kassam-Adams & Winston, 2004; Mirza, Bhadrinath, Goodyer, & Gilmour, 1998; Shalev, Peri, Canetti, & Schreiber, 1996; Stallard, Vellenbarn, & Baldwin, 2001*). This finding is significant because it implies that even minor accidents can be distressing enough to trigger PTSD.
symptomatology. The definition of a traumatic event in Criterion A of DSM-IV accounted for this, describing it as “an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others (A1)” and “the person’s response involved intense fear, helplessness, or horror (A2)” (APA, 1994, pp. 427–428). However, Criterion A2’s specification about an individual’s emotional response excluded some individuals. Although an issue across all traumas, it is particularly important for minor MVAs that do not elicit intense responses during the crash, but may still result in PTSD symptomatology. The current DSM-5 appears to better allow for this, as the definition of a trauma no longer includes qualifiers about an individual’s emotional response.

2.4. Sexual assault

As described previously, combat has long been recognized as an event that may result in negative psychological reactions in some individuals, and natural disasters and life-threatening accidents were quickly identified as additional, easily recognizable traumas. Indeed, the recognition of combat, natural disasters, and life-threatening accidents as psychologically impactful, traumatic events developed early, quickly, and with little hindrance. More ‘invisible’ interpersonal traumas did not achieve recognition or legitimization in the field until much later. The legitimization of and research on trauma reactions resulting from sexual assault predated other interpersonal traumas. Though other trauma types were previously identified by event-specific monikers – shell shock for combat and railway spine for accidents – rape survivors were labeled “hysterical,” a term that pathologized them as a function of gender stereotypes rather than categorizing them based on the traumas they had endured.

“Hysteria” was first used within the context of trauma responses when shell shock was conceptualized as “an epidemic of male hysteria” during World War I (Showalter, 1987, p. 167). Hysterical soldiers, like hysterical women, were perceived as “simple, emotional, unthinking, passive, suggestive, dependent, and weak” (Showalter, 1987, p. 168). As described previously, PTSD did not receive inclusion as a formal diagnosis until it attained the national spotlight in the 1960s and 1970s, as countless Vietnam veterans began presenting with a host of chronic psychological problems after undergoing traumatic events in combat. The acknowledgment of sexual violence as a major social problem and potential cause of similar psychologically disordered reactions began during the same era – due largely to the efforts of the anti-rape movement, which was born out of the civil rights and feminist movements (Bevacqua, 2000).

The 1970s introduced feminist writing on the issue of rape, identifying it as a major social issue and redefining it with a focus on holding the perpetrator accountable. This included framing sexual assault as an issue of power and control, not a result of mental illness experienced by the perpetrator (e.g., Browmiller, 1975; Griffin, 1971; Russell, 1975). Early studies of social perceptions of sexual violence suggest that most people imagined the crime in an extremely narrow way, such as rape in situations where the victim was violently attacked outside by a stranger at night (Anderson, 2007; Gavey, 2005). In this stereotyped scenario, victims were considered to be ‘legitimate.’ According to this stereotype, clear physical force was used by the perpetrator, which was regarded as evidence that in no way had the victim consent (DuMont, Miller, & Myhr, 2003). Perpetrators of sexual violence were typically viewed as strangers who were psychologically disturbed men who preyed on women and children (Donat & D’Emilio, 1992). Conversely, women engaging in any ‘questionable’ behavior such as drinking alcohol or dressing suggestively were not ‘legitimate’ victims (Anderson, 2007; DuMont et al., 2003). Together, these stereotypes about rape, perpetrators, and victims have served as a powerful blueprint for what society has considered a ‘real’ rape and who can be identified as a ‘real’ victim (DuMont et al., 2003; Estrich, 1987).

Lending legitimacy to the conceptualization of sexual assault as a traumatic experience that leads to profound suffering – and potentially psychopathology – the two-person team of psychologist Ann Wolbert Burgess and sociologist Lynda Lytle Holmström coined the term rape trauma syndrome (RTS) in 1974 to describe the disordered response to trauma experienced by some rape survivors. RTS was conceptualized as the psychological trauma experienced by a rape victim that includes disruptions to normal physical, emotional, cognitive, and interpersonal behavior. It was a cluster of psychological and physical signs, symptoms and reactions common to most victims immediately following and for months or years after a rape (Sandoval, 2002). RTS was divided into three stages: acute, outward adjustment, and renormalization.

The acute stage occurred in the days or weeks after a rape. Behavioral symptoms during this stage included diminished alertness, numbness, dulled sensory/affective/memory functions, disorganized thought content, paralyzing anxiety, pronounced internal tremor, and acute sensitivity to the reaction of others; physical symptoms such as nausea and vomiting were also included (Sandoval, 2002). Survivors in the outward adjustment stage resumed their normal lifestyle, though they continued to suffer profound internal turmoil. This ongoing psychopathology could manifest in a variety of ways as the survivor attempted to cope with the long-term effects of the trauma. In a 1976 paper, Burgess and Holmström noted that all but 1 of their 92 participants exhibited maladaptive coping mechanisms after a rape. They outlined the five primary coping strategies used during the outward adjustment phase: minimization (i.e., pretending everything is fine), dramatization (i.e., cannot stop talking about the assault), suppression (i.e., refusing to discuss the rape), explanation (i.e., analyzing what happened), and flight (i.e., moving to a new home or city). They also identified several other coping mechanisms and responses, including poor general health, continuing anxiety, sense of helplessness, hypervigilance, inability to maintain previously close relationships, general nervous responding known as the “stallter response,” persistent fear or depression, mood swings from relatively happy to depression/anger, extreme anger/hostility, sleep disturbances such as vivid dreams and recurring nightmares, flashbacks, dissociation, and panic attacks (e.g., Choquet, Darves-Bornoz, Ledoux, Manfredi, & Hassler, 1997; Groth & Burgess, 1980; King, Coxell, & Mezey, 2002; Tewksbury, 2007). Burgess and Holmström also noted that survivors in the acute stage can have their lifestyle dramatically affected, such as by a damaged sense of personal security or safety, hesitation to enter new relationships, uncertainty of their sexual identity and sexual orientation, and/or disturbance of their sexual relationships (e.g., deVisser, Smith, Rissel, Richters, & Grulich, 2003; Garnets & Herek, 1990; Struckman-Johnson & Struckman-Johnson, 1994).

In the renormalization stage, survivors became self-aware of the adjustment they had been undergoing. Of particular importance was survivors in detail recognizing the impact of the rape, and acknowledgment of the secondary damage of counterproductive coping tactics (e.g., recognizing that one’s drug abuse began to help cope with the aftermath of a rape). During renormalization, the survivor began to integrate the sexual assault into their life story so that it was no longer the central focus; negative feelings such as guilt and shame were resolved, and the survivor ceased blaming him- or herself for the attack.

The development of RTS and the work of Burgess and Holmström contributed significantly to the increased specificity of the field’s conceptualization of disordered responses to trauma between DSMs II and III. In 1968, the second iteration of the DSM was released with a category called Transient Situational Disturbances,
which broadly covered any “acute reaction to overwhelming environmental stress… [which] persist[s] after the stress is removed” (APA, 1968, p. 48). Disorders in this category were classified according to the individual’s developmental stage (e.g., adjustment reaction of infancy, adjustment reaction of childhood, etc.). Neither specific symptoms nor specific traumatic triggers were identified. Accordingly, Burgess and Holmström’s identification of specific symptoms often present following one specific trauma was ground-breaking. Their work helped to identify what are now recognized as some of the hallmark symptoms of posttraumatic stress disorder: flashbacks, difficulty concentrating, sense of a foreshortened future, avoidance and fear of thoughts and triggers related to the trauma, nightmares and night terrors, hyperresponsivity to touch, diminished interest in activities, and heightened feelings of suspicion and/or paranoid (Burgess & Holmström, 1974). Their research served a dual function: it helped to refine the field’s conceptualization of disordered responses to trauma; and it increased recognition of the psychological effects sexual assault in the field and for the public.

Indeed, by 1980 and the release of DSM-III, PTSD had officially entered the lexicon of clinical psychology. It was conceptualized as a response to a stressor “outside the range of usual human experience… [which was] experienced with intense fear, terror, and/or helplessness” (APA, 1980, p. 238). Furthermore, it identified specific examples of what should be considered a trauma – which was broad, in that it encapsulated a spectrum of experiences, including rape, physical assault, military combat, and serious motor vehicle accidents – and what should not. Though these identifications can be argued to be somewhat limiting, they also lent legitimacy to the serious psychological effects of rape. Additionally, DSM-III included specific diagnostic criteria based on the symptoms observed and measured by experimenters like Burgess and Holmström, including flashbacks, difficulty concentrating, sense of a foreshortened future, avoidance of triggers, nightmares, hypervigilance, and diminished interest in activities.

Following the publication of the DSM-III and the legitimization of rape trauma in public and scientific spheres, advocates and researchers began to take the next step in rape-related advocacy and research: emphasizing that an exclusive focus on stranger rape prevented recognition that the majority of sexual assaults were committed by acquaintances (e.g., Koss, Gidycz, & Wisniewski, 1987). As a result, ‘acquaintance rape’ became a major public concern in the 1980s, and the media latched onto the topic (Parrot & Bechhofer, 1991). Since that time, a large body of research has evolved that explores sexual assault occurring in acquaintance situations. The further legitimation of sexual violence as a category of traumatic experience can be found in its more specific inclusion in subsequent DSM criteria. In DSM-IV (APA, 1994) and -IV-TR (APA, 2000), traumatic experiences were described as an event or events involving actual or threatened death or serious injury, or a threat to the physical integrity of self or others – with “threat to physical integrity” standing in for “sexual violence,” DSM-5 made this connection more explicit by stating that a disordered traumatic response to an event could occur after “… actual or threatened… sexual violence” (APA, 2013, p. 271).

Yet despite these progressive changes in the DSM criteria and significant research that contradicts the classic ‘stranger rape’ stereotype, there is evidence that many individuals still understand rape according to this image, or that there are elements of this stereotype that persist in subtle ways (Sarmiento, 2011). This lag is demonstrated by research that documents the way the public defines sexual violence, as well as through their lingering stereotyped perceptions of perpetrators and victims. As such, the work of advocates and researchers in the field of sexual violence has been successful over the last several decades, particularly in terms of increasing the level of public awareness of the problem, and legitimizing rape trauma as a serious mental health concern. There have been significant efforts to challenge the notion of the classic stranger rape stereotype, and there is evidence that certain aspects of that myth have faded over time (Sarmiento, 2011). However, further work is still needed to replace the more deeply ingrained yet subtle public misconceptions about sexual violence (McMahon, 2011). One aspect of this need is identifying where in the current 636,120 permutations of PTSD survivors of rape tend to fall (Galitzer-Levy & Bryant, 2013). Further specificity of how responses to this particular trauma tend to manifest within this ever-growing category may impact both conceptual models and effective/efficient treatments.

Sexual traumas are comparatively less visible than those of the previously recognized traumatic events. Sexual assault most often occurs between two individuals – and is vastly underreported (National Research Council, 2014). Its recognition and legitimization in the DSM may have helped to open the door for other similarly ‘invisible’ traumas including molestation, neglect, and abuse.

3. Discussion

3.1. The evolution of PTSD from DSM-III to DSM-5

The shift from DSM-III in 1980 to DSM-IV in 1994 expanded the life experiences included under the umbrella of PTSD, yet DSM-IV further balloononed the number of life events that could be defined as ‘traumatic.’ Following DSM-IV, researchers were concerned that the PTSD Criterion A was becoming overly inclusive and pathologizing normal life events (Rosen, Spitzer, & McHugh, 2008). For example, under DSM-IV criteria, an individual could be diagnosed with PTSD after witnessing the misfortunes of others on television. Indeed, after the 9/11 attacks, individuals living in the tri-state area who television footage of people falling out of the World Trade Center towers reported significant PTSD symptomatology (Abern et al., 2002).

Other researchers have been concerned about ‘criterion creep’ in regards to the PTSD diagnostic category (Kilpatrick, Resnick, Acierno, 2009) and the writers of DSM-5 attempted to reign in the diagnosis and its criteria. For example, DSM-5 did away with Criterion A2 (peritraumatic emotions of fear, helplessness, and/or horror), as evidence suggested that these emotions were not the most highly associated with PTSD symptom severity (e.g., Hathaway, Boals, & Banks, 2010). Specifically, while fear was highly associated, the emotions of guilt, shame and disgust were more highly associated with symptom severity than were helplessness and horror. In addition, DSM-5 changed Criterion A to restrict vicarious trauma to only individuals interpersonally close to the trauma victim. Of note, most PTSD researchers pushed for these changes in the DSM-5 criteria (e.g., Friedman, Resick, Bryant, & Brewin, 2011). One study compared the DSM-IV and DSM-5 PTSD criteria within the same sample to detail how the changes impact prevalence rates (Kilpatrick et al., 2013). Results demonstrated a slightly lower prevalence rate for the DSM-5 compared to DSM-IV, indicating the changes in Criterion A did succeed in increasing specificity. Two other important changes to the DSM-5 were also thought to be partially responsible for the lower prevalence rate. First, non-accidental, non-violent deaths were excluded from Criterion A1; and second, at least one active avoidance symptom was included as a new requirement.

As an alternative solution to the ‘criterion creep’ of the PTSD diagnosis, some researchers suggested abolishing Criterion A from the PTSD diagnostic criteria altogether (Brewin, Lanius, Novac, Schnyder, & Galea, 2009). These researchers acknowledged that the severity of the traumatic event does not usually relate to symptom...
severity (e.g., Feinstein & Dolan, 1991), arguing that the objectivity of identifying traumatic events based on their occurrence "outside the range of usual human experience" was illusory (APA, 1980, p. 238). Rather, the presence and severity of subjective PTSD symptoms supersedes the objective severity or specifics of the event itself. Of note, this conceptualization is a complete reversal from the aforementioned Post-Vietnam syndrome. Although the creators of DSM-5 chose not to follow these lines of reasoning, it would be rational for future revisions to consider de-emphasizing the objectivity of the trauma in favor of emphasizing the subjectivity of the symptoms when crafting PTSD criteria.

3.2. Future directions

The purpose of this review was to outline the potential scientific and clinical benefits of studying PTSD by trauma type. Based upon our historical analysis, the inclusion or exclusion of trauma types has changed the diagnostic definition of PTSD. For example, the acknowledgment of sexual assault as a type of trauma brought about the recognition and legitimization of other similarly 'invisible' trauma including molestation, neglect, and abuse. On the other hand, the exclusion of traumatization through secondary exposure led the writers of DSM-5 to specifically limit vicarious trauma exposure to loved ones.

Research has found partial support for differing PTSD symptom presentations across types of trauma (e.g., Naifeh et al., 2008); however, a review of differing PTSD symptom presentations is beyond the scope of this review. We therefore consider the possibility that PTSD is a slightly different disorder across trauma types. The differing PTSD symptom presentations across trauma type might indicate that different traumatic experiences create differing trauma-related disorders.

The science of trauma has much to gain from considering PTSD to be a slightly different condition across trauma types. Our literature review indicates that types of trauma are traditionally studied in isolation, with the exception of epidemiological examinations of prevalence rates. Indeed, most research addresses hypotheses regarding specific trauma types using samples of individuals selected for their experience with a specific event. Studies that collect data on individuals with one – but differing types of – trauma allow researchers to test hypotheses regarding the differing effects of trauma type on PTSD etiology, maintenance, risk and resilience.

Several potential clinical benefits can arise from studying PTSD across trauma types. For example, it may be beneficial to focus on the clinical utility of PTSD subtypes based on types of trauma. The depression literature has demonstrated the clinical utility of diagnostic subtypes (e.g., Fava et al., 1997). Other research might then begin to look at trauma type as a moderator of treatment outcome. It is possible certain PTSD treatments work better for differing types of trauma: for example, combat-induced PTSD compared with sexual assault induced PTSD. Although past research suggests the equivalent effectiveness of prolonged exposure therapy (PET) and cognitive processing therapy (CPT) on average, clients who have experienced certain traumas might benefit from one more than the other. The substance abuse and depression literatures have already conducted treatment outcome studies attempting to answer similar, clinically relevant questions (e.g., Elkin et al., 1989) and the PTSD literature may benefit from a similar approach.

4. Conclusions

There is a multitude of ways to be diagnosed with PTSD, a conclusion that has been influenced by the historical progression of conceptualizations of adult reactions to trauma in America. In reviewing the history and the conceptual trajectory of this diagnostic category, we focused on four types of traumas: combat, natural disaster, life-threatening accident, and sexual assault. Following chronology, we began with an analysis of combat-related reactions and their role in bringing disordered reactions to trauma into social consciousness in America. Although observations of reactions to trauma are evident in older writings, they captured our attention during WWII. From there, reactions to trauma moved from being conceptualized either as medical illnesses or consequences of psychological weakness, to a psychological disorder with biological bases similar to depression.

Natural disasters, although recognized early on as a traumatic experience with consequences similar to combat, were temporarily removed from the diagnostic criteria in DSM-II, which emphasized more transient situational disturbances. Despite being a common focus of the media, natural disasters are still outside the range of normal human experience and can produce lasting psychological and physical damage to entire communities. This type of traumatic experience has the potential to trigger diverse reactions, given the broad potential for differing degrees of exposure to the incident (e.g., first responder, direct victim, community member) and the wide variety of experiences included under this category (e.g., hurricane, technological disaster).

We also explored the trauma of life-threatening accidents. Although this might appear as a catch-all category, research in this area has primarily focused on transportation accidents. Evidence for reactions to trauma first came in the diagnosis of railway spine, a term used by medical professionals to describe unexplainable symptoms following railway accidents. As research on reactions to trauma progressed and parallels were drawn from other traumas (particularly combat), the narrow term railway spine was discarded. This shift was also the result of a societal shift from railway to motor vehicle transportation and individuals experiencing similar symptoms following motor vehicle accidents. Because of the high frequency of MVAs, the change in the definition of a trauma from DSM-III to DSM-IV (i.e., the removal of the specifier “an event outside the range of usual human experience”) helped legitimize this type of incident as a trauma that could cause PTSD (APA, 1980, p. 238).

Sexual assault was the final trauma type we explored. Rape has come to be recognized as the traumatic event with the greatest probability of triggering PTSD in both men and women (Kessler et al., 1995). The rise of civil rights, women's rights, and liberal ideologies in America during the 1960s and 1970s allowed for the eventual inclusion of sexual assault into the PTSD diagnostic category. The recognition and legitimization of this trauma type may have helped open the door for other similarly 'invisible' and socially taboo traumas such as molestation, neglect, and abuse.

It has yet to be determined whether the heterogeneity we have identified and described is problematic. Future research is needed to explore this issue – and, specifically, to determine whether different trauma types are associated with different symptom presentations. If such differences do exist, the historical approach of conceptualizing different trauma-related disorders based on trauma type may provide fruitful clinical benefits in the future.

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References


