Psychol. Inj. and Law (2011) 4:24–31
DOI 10.1007/s12207-011-9099-y

Neuropsychological and Psychological Aspects of Malingered Posttraumatic Stress Disorder

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Received: 10 October 2010 / Accepted: 24 February 2011 / Published online: 19 February 2011

Abstract Posttraumatic stress disorder (PTSD) is an anxiety disorder that is frequently encountered in litigation, and as such, there is an increased risk for poor effort on cognitive tests, symptom exaggeration, or frank malingering. These are particularly problematic for accurate diagnosis. This article is divided into four sections. First, we address why individuals malinger PTSD as well as the challenges in detecting an invalid PTSD symptom presentation. Second, we discuss issues of cognitive functioning in PTSD and then the prevalence of and common patterns of poor effort on neuropsychological testing among individuals feigning PTSD. Third, we discuss psychological functioning in PTSD and then the prevalence and patterns of functioning on psychological measures of malingering in this population. Finally, recommendations for detecting invalid PTSD symptom presentations are provided.

Keywords Posttraumatic stress disorder · Malingering · Neuropsychological test · Anxiety disorder · War

Posttraumatic stress disorder (PTSD) is an anxiety disorder that may occur following exposure to a traumatic event involving actual or threatened bodily injury or death. It is characterized by the following three symptom clusters: the event is persistently re-experienced; the individual avoids stimuli associated with the trauma and/or experiences a numbing of responsiveness; and there are persistent symptoms of increased arousal. Unlike other anxiety disorders, individuals who report experiencing PTSD are more likely to be in a litigation context, given that they may have experienced a traumatic event in an accident that may be compensable or perhaps at work where disability and worker's compensation issues may be relevant. Moreover, claims of PTSD have long been made in soldiers returning from war, particularly the Vietnam War and now the current wars in Iraq and Afghanistan, where issues of disability (Service-Connection in the Veterans Affairs [VA] system) and compensation are again at play. The clear challenge in such contexts is to diagnose accurately PTSD given that the symptoms are subjective and, particularly, given the increasing knowledge about PTSD among the lay public, the relative ease with which it can be feigned accurately.

It is clear that the base rates of malingering and symptom exaggeration are higher in such compensation-seeking contexts (e.g., Frueh et al. 2003; Mittenberg et al. 2002). It is thus not surprising that the *Diagnostic and Statistical Manual of Mental Disorders-IV* (DSM-IV; American Psychiatric Association 1994) notes that for PTSD "Malingering should be ruled out in those situations in which financial remuneration, benefit eligibility, and forensic determinations play a role" (p. 427). Given the above realities, we have the following goals for this paper: (a) review research on the cognitive and psychological aspects of malingered or invalid PTSD, and (b) provide general recommendations for clinicians working with this population on how to detect invalid PTSD symptom presentations. This effort compliments recent work by Rubenzer (2009) by providing a broader conceptual view of malingered or

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invalid PTSD (both cognitive and psychological) but is less a "nuts and bolts" perspective on malingering detection.

Why Individuals Malinger PTSD, and Diagnostic Challenges

There are several common reasons why some individuals malinger PTSD. First, there are substantial financial incentives for malingering PTSD, including the receipt of disability benefits from the VA or Social Security Administration (Frueh et al. 2007), as well as worker's compensation and personal injury lawsuits (Taylor et al. 2007). Second, individuals charged with criminal penalties sometimes malinger PTSD as an insanity defense or for reduced sentencing (Resnick et al. 2008). Finally, in order to gain honor or recognition as a war hero, some falsely claim that they experienced trauma such as war combat and/or PTSD—the so-called "stolen valor" phenomenon (Frueh et al. 2005).

Broadly speaking, PTSD is not a difficult disorder to feign. First, most symptoms are subjectively experienced, typically outside of an evaluation session (e.g., trauma-related nightmares and flashbacks). Second, most PTSD assessment instruments are easily feigned as they ask face-valid symptom queries without validity scales to detect altered response sets (reviewed in Elhai et al. 2010). Third, oftentimes with malingered psychopathology, an over-the-top, dramatic symptom presentation from multiple syndromes is indicative of malingering. However, PTSD is a disorder that is highly comorbid with other mental disorders—especially, major depressive disorder, anxiety disorders and substance abuse and dependence (Kessler 2000). And even when adjusting for the fact that PTSD shares some symptoms with other mood and anxiety disorders, substantial comorbidity still remains (Elhai et al. 2008). Fourth, some genuine mildly afflicted PTSD patients likely exaggerate their symptoms for fear of losing PTSD disability benefits; in fact, pension systems such as that of the VA pose a conundrum in that providing disability benefits serves as a disincentive to improve (Frueh et al. 2007). Fifth, even honestly reporting PTSD patients may misattribute ongoing PTSD symptoms from a previous trauma to a new trauma (Elhai et al. 2010).

Cognitive Issues in the PTSD Evaluation

As with many other psychological disorders, neuropsychological difficulties are associated with PTSD. The DSM-IV (American Psychiatric Association 1994), for instance, considers "difficulty concentrating" as one of the potential symptoms of PTSD's increased arousal. Cognitive difficulties, typically memory and concentration deficits, are in fact common complaints of those evaluated for PTSD (Roca and Freeman 2001; Solomon and Mikulincer 2006). Formal neuropsychological research on this issue, however, has been mixed as the extensive research in this area is marked by considerable variability in participant recruitment, type of participant trauma (e.g., combat-related or crime victimization), exclusion criteria, comorbidity, and the type of neuropsychological tests employed. A detailed discussion of the link between PTSD and potential cognitive impairment is beyond the scope of this chapter, but there are several comprehensive reviews of this large body of research (see Horner and Hamner 2002; Vasterling and Brailey 2005). In general, these reviews conclude that the literature, for the most part, indicates the presence of cognitive deficits in PTSD. For instance, of the 19 studies in their narrative review of investigations that compared participants with PTSD to (mostly) nontrauma-exposed healthy controls on neuropsychological measures, Horner and Hamner (2002) concluded that in 16 of these studies, participants with PTSD demonstrated some type of attention and/or immediate memory deficit. These deficits were characterized as mild. Vasterling and Brailey (2005) reviewed much of the same literature and concluded that the deficits in PTSD were "not global but are instead limited to specific domains in particular, attention and memory functions" (p. 199). Overall, like most other psychological disorders, research has confirmed that PTSD is associated with cognitive impairment, but that impairment may be characterized as relatively minor, if present at all.

While the above reviews have concluded that PTSD is broadly associated with relatively mild cognitive impairment, considerable questions remain about the etiology and even validity of such deficits. First, because many of the studies do not control for common psychiatric comorbidities in PTSD, such as depression or substance abuse, it is problematic to attribute cognitive deficits to PTSD alone (e.g., Uddo et al. 1993). Additionally, there are likely to be other comorbidities such as neurological and medical issues that are known to affect cognition but that differ between PTSD and control groups. Unfortunately, while some studies do control at least some of these issues or describe why they cannot be controlled, they then focus on PTSD as the cause of cognitive impairment and minimize the possible effect of other factors (e.g., Vasterling et al. 2002). Second, because virtually all of the research in this area is cross-sectional, it is unclear whether the observed cognitive deficits are the causes or effects of PTSD. Some research has, in fact, indicated that cognitive deficits/low intelligence (McNally and Shin 1995) or subtle neurological dysfunction (Gurvits et al. 2006) may be risk factors for the development of PTSD.

Such individuals may be less able to cope effectively with traumatic stressors. Assuming that the PTSD–cognitive link is genuine, a third issue surrounds the representativeness of this research, as much of it depends on samples diagnosed with combat-related PTSD. Yet, such individuals may experience more severe PTSD symptomatology and psychiatric comorbidities than civilian populations who have suffered other types of trauma (e.g., Elhai et al. 2000). A final, and particularly problematic issue, is that the majority of this research fails to consider the possible effects of poor effort or motivation on neuropsychological performance (see below for description). While there have been some exceptions that have screened for poor motivation (e.g., Marx et al. 2009; Sullivan et al. 2003) these studies have not been methodologically sophisticated. For instance, Marx et al. (2009) used the Test of Memory Malingering (TOMM) and excluded participants below a cutoff score indicative of poor effort, but did not specify how many participants were actually screened out because of this exclusionary criterion. Overall, neglecting to evaluate effort remains a continuing concern as neuropsychological research has now demonstrated that it has an important effect on neuropsychological test performance (Rohling et al. 2002) and that such testing is critical for the accurate assessment of cognitive functioning (see Heilbronner et al. 2009).

While psychological testing is naturally the key element in the forensic evaluation of PTSD, neuropsychological screening or evaluation is also commonly conducted, as noted above, because of the frequent cognitive complaints among PTSD claimants and the likelihood that they might have genuine cognitive dysfunction (whatever the actual cause). Neuropsychological evaluation thus ensures a thorough evaluation and may help to determine the cause of cognitive dysfunction, if it exists. Even so, research has questioned the validity of cognitive complaints in PTSD as, for instance, Roca and Freeman (2001) found that cognitive complaints were not correlated with actual cognitive performance in a VA sample of male participants diagnosed with PTSD, but were correlated with several measures of psychopathology. In other populations, research has found a similar lack of concordance between subjective complaints of poor memory and actual memory performance (e.g., Rohling et al. 2002), but a significant relationship between subjective report of poor cognitive abilities and psychological distress (e.g., Jungwirth et al. 2004). Cognitive complaints should therefore be carefully evaluated if present, but also critically scrutinized and placed in context of psychological distress and possible motivation to overreport experienced symptoms.

More recently, several studies have critically examined the prevalence of poor effort on cognitive symptom validity tests, as well as how effort might affect cognition in those who may have PTSD. In a large sample of Canadian litigants with symptoms of PTSD, Demakis et al. (2008) found that 29% of their sample failed at least one cognitive symptom validity test, including tests such as the Word Memory Test (WMT) or the TOMM. Fourteen percent failed two or more of these tests. Not surprisingly, failure on psychological symptom validity testing, such as validity scales of the Minnesota Multiphasic Personality Inventory2 (MMPI-2), were even higher as 47% produced invalid profiles based on at least one scale, and 16% were invalid based on two or more scales. As a caveat, this study did not use formal diagnostic criteria to diagnose PTSD, but rather used significant elevations on several PTSD measures (even among those responding honestly on both cognitive and psychological symptom validity tests) as a marker of likely PTSD. While these elevations were meaningful and, on average, three standard deviations above the control group mean, it is possible that some of these litigants would not have met formal DSM-IV PTSD criteria.

In other work, in a sample of German litigants with allegations of PTSD studied by Merten et al. (2009), 51% failed the WMT, and 23% failed Reliable Digit Span. On psychological symptom validity tests, 51% failed the Structured Inventory of Malingered Symptoms, and 40% failed the Morel Emotional Numbing Test. It is unclear how many met formal DSM-IV criteria, but 23% of the sample's traumatic event did not meet DSM's criterion A1 regarding the nature and severity of the traumatic event. Moreover, almost two thirds of these litigants had at least one implausible feature such as amnesia for the event and delayed symptom onset (more than 1 month after the event). Another study by the same group (Stevens et al. 2008) examined litigants referred for psychological, psychiatric, and neurological evaluation in a workers' compensation or personal injury context. Of those with complaints of PTSD, 44% failed effort testing that included the WMT, Medical Symptom Validity Test, and the Structured Inventory of Malingered Symptomatology. The agreement of failure rate on these two symptom validity measures (one cognitive and the other psychological) was approximately 70%; overall, the failure rate on effort testing was not significantly different for PTSD complaints than for other complaints such as anxiety, depression, medical, and whiplash injuries. Taken together, these studies indicate that even though invalid performance on psychological validity tests is more common (as particularly demonstrated in the Demakis et al. 2008 sample), individuals claiming PTSD are also likely to fail cognitive symptom validity tests at fairly high rates. These cognitive failure rates are even somewhat higher than the base rates of probable malingering or symptom exaggeration in personal injury, disability, or worker's compensation cases as estimated by a survey of clinical neuropsychologists (Mittenberg et al. 2002).

The suppressing effect of poor effort on neuropsychological functioning is clear. Stevens et al. (2008) found that neuropsychological performance was significantly poorer on most tests for claimants who failed at least one effort test versus those who passed both effort tests. The effect size difference between groups was large, with Cohen's *d*s ranging from .6 to 5.0. Unfortunately, this study did not parcel out the findings for PTSD claimants, who made up 27% of the sample, so it is unclear whether these results would hold for only those with PTSD. In the Demakis et al. (2008) study of participants with PTSD symptoms, neuropsychological performance across multiple tests was averaged into a Test Battery Mean (TBM) *T* score (mean=50, standard deviation=10). Of those who did not fail any cognitive symptom validity tests, the TBM score was *T*= 49, whereas for those who failed four symptoms validity tests, the score was significantly lower (*T*=34). These findings, though in a different format, are similar to those of Rohling et al. (2002) who found that performance on cognitive symptom validity tests accounted for 45% of the total variance in neuropsychological test performance in a mixed neurological and psychiatric sample. When the Demakis et al. (2008) data were evaluated in a different fashion, cognitive performance was correlated with PTSD symptom reports in the entire sample irrespective of effort testing performances (i.e., increased psychiatric symptomatology was associated with poorer cognitive functioning). However, when those participants failing effort tests were removed from the dataset, there was no relationship between PTSD symptoms and cognitive performance. As these studies make clear, poor effort or motivation is a strong predictor of poor neuropsychological performance in those with symptoms of PTSD (as well as other disorders). However, when adequate effort is exerted, PTSD does not appear to be related to cognitive deficits.

Psychological Issues in the PTSD Evaluation

Several issues make the psychological evaluation of PTSD challenging. First there are problems with PTSD's criterion A—the requirement that a traumatic event involving serious injury or death was experiencing by the individual, witnessed or was learned about happening to someone close (A1) and resulted immediately after the event in intense fear, helplessness or horror (A2). Certainly, high magnitude traumas such as combat exposure and violent rape satisfy criterion A, resulting in the highest conditional probability of developing PTSD (Kessler et al. 1995). However, several studies have found that lower magnitude events that are stressful but clearly do not meet criterion A can result in PTSD's symptom criteria being met (reviewed in Long and Elhai 2009). Thus the clinician must diligently adhere to PTSD's diagnostic criteria (especially criterion A) to ensure the correct diagnostic determination. Additionally, some trauma victims who really should be diagnosed with PTSD may fail to receive the diagnosis because they do not meet criterion A2—this can happen in emergency responders and others who experience trauma in a professional role who are trained not to experience the subjective feelings described in A2 (Creamer et al. 2005).

Regarding PTSD's symptom clusters, PTSD assessment instruments typically offer ease in evaluating PTSD's re-experiencing and hyperarousal symptoms (Elhai et al. 2010). And those symptoms are the ones most likely to bring a patient in for mental health treatment, especially, nightmares and sleep problems (Ross et al. 1989). Yet, assessing PTSD's effortful avoidance of trauma-related reminders and emotional numbness can prove difficult, given the awkwardness in querying the absence of certain experiences, and the difficulty for respondents to sometimes acknowledge such experiences (Elhai et al. 2010).

Studies using psychological assessment instruments in presumably genuine presenting civilian and military trauma victims and PTSD patients find that a significant proportion of these individuals evidence elevations on symptom validity and fake bad scales that are very suggestive of exaggeration or malingering. This phenomenon has been found using instruments such as the MMPI-2 in cluster analyses. For instance, Elhai et al. (2003) veterans study and Elhai et al. (2001) civilian study of trauma victims' MMPI-2 profiles discovered overreported/exaggerated subgroups in 55–67% of respondents, respectively. Elhai et al. (2002) study of 940 combat veterans is particularly elucidating, finding 32% of the sample elevating the MMPI-2's F scale above a T score of 120, and 18% elevating Fp above the empirically based cutoff score of 90 for determining symptom exaggeration. This phenomenon has also been found with the Structured Interview of Reported Symptoms (SIRS) where Freeman et al. (2008) found among 74 Vietnam veterans that using empirically based cutoff scores of symptom exaggeration resulted in 53% of their sample judged to have invalid profiles (see Rubenzer 2009, for details about classification statistics for this and related research). It is possible that the Elhai et al. (2003), Elhai et al. (2002) and Freeman et al. (2008) studies could have been contaminated. Specifically, those studies used treatment samples of veterans at VA medical centers, and evidence suggests that most VA-connected veterans seek disability benefits (Frueh et al. 2003), possibly resulting in exaggerated symptom responding in these studies. However, the Elhai et al. (2001) study, found similar results in an outpatient treatment-seeking sample of civilian victims of sexual abuse, with little incentive to malinger.

Malingered PTSD symptom profiles on psychological tests tend to evidence diffuse overreporting across the board on scales measuring clinical psychopathology, with particularly high elevations on measures of psychosis, depression and anxiety (and significantly higher than among genuine PTSD patients; Elhai et al. 2001, Elhai et al. 2003). The most common MMPI-2 codetypes, for example, are 4–8 in civilians (Lyons and Wheeler-Cox 1999) and 2–8 in military veterans (reviewed in Wise 1996). Also evident are substantial elevations across validity scales dealing with atypical and obvious response patterns, such as the MMPI-2's Infrequency (F) scale, Infrequency minus Correction scale (F–K), and Infrequency-Psychopathology scale (Fp; Elhai et al. 2001).

In addition to formal psychological testing, there are other sources of data on the prevalence of malingered PTSD—most prominently from Frueh et al.'s (2005) study. Frueh et al. examined the official military records of 100 patients consecutively presenting to a VA PTSD clinic who claimed to be Vietnam War combat veterans. They found that 32% of their sample had evidence of Vietnam War service but no combat exposure, with an additional 3% having no evidence of serving in Vietnam (but serving elsewhere) and 2% having no evidence of serving in the military. Those found to have never served in combat often reported such dramatic experiences as witnessing or committing atrocities, being wounded, and being engaged in classified operations (for which there would in fact be some kind of evidence in their official records). And that group reported substantially greater PTSD severity. More broadly, an entire book—*Stolen Valor: How the Vietnam generation was robbed of its heroes and its history* (Burkett and Whitley 1998)—provides many rich case studies depicting individuals who have fabricated military combat experience, medals or honors won, and/or PTSD.

Detecting Malingered PTSD

Several personality assessment instruments have shown success in identifying malingered PTSD, based on studies comparing trained PTSD simulators with PTSD patients (see Rubenzer 2009, for cut scores for the research below). These instruments attempt to detect such strategies as atypical responding and obvious symptom reporting, as well as inconsistent presentations (and behavioral observations in the case of the SIRS).These instruments include the MMPI-2, Personality Assessment Inventory (PAI), Trauma Symptom Inventory (TSI), and SIRS. We focus on the MMPI-2 as these other instruments suffer from worse detection accuracy between PTSD simulators and PTSD patients, including the PAI (e.g., Eakin et al. 2006; Lange et al. 2010), and TSI (e.g., Efendov et al. 2008; Elhai et al. 2005).

The MMPI-2 is arguably the best known and most effective test for detecting malingered PTSD. While there are a vareity of research approaches with a vareity of patient-types, we focus on simulation studies, given their tight experimental control and thus high internal validity. Early studies using the MMPI-2 to distinguish between PTSD simulators and PTSD patients used scales including F, Fb, F-K, the Fake Bad (FBS), and Dissimulation (Ds) scales. Those studies yielded modest success in detecting simulated PTSD, by comparing civilian sexual assault-related and combat-related PTSD outpatients with college students trained and instructed to simulate PTSD—around 70–80% based on optimal cutoff scores for F and F–K (e.g., Elhai et al. 2000, 2001). However, F and F–K may be problematic because the F scale was developed based on items that were infrequently endorsed among healthy individuals and these items are often genuinely endorsed in mental health inpatients, such as from VA medical center settings (Arbisi and Ben-Porath 1995). Additionally, the F scale is highly correlated with depression, PTSD and dissociation—all of which are common among adult victims of trauma exposure, such as sexual abuse (Klotz Flitter et al. 2003). Nonetheless, these F-related scales appear to have better malingered PTSD detection accuracy than other scales such as FBS and Ds, a finding consistent across studies discriminating simulated PTSD among college students and clinical samples from outpatients with military- and civilian-related PTSD (Arbisi et al. 2006; Elhai et al. 2000, 2001).

Rogers et al. (2003) published a meta-analysis of malingering on the MMPI-2. They demonstrated that effect sizes for detecting malingered PTSD are noticeably lower than those for detecting the other most prevalent form of psychopathology investigated in simulation studies—schizophrenia; in any case, simulating PTSD patients report extreme levels of distress that are evidenced by severe MMPI-2 validity scale elevations (Rogers et al. 2003). Notably, Rogers et al. found that the largest effect sizes for detecting PTSD simulation were from F–K (Cohen's d= 1.34), Fp (1.22), F (1.18), Fb (1.13). The FBS had the lowest effect size (.28). In contrast, in detecting simulated schizophrenia, the largest effect sizes were as high as 3.00 (F) and 2.88 (F–K). After the Rogers et al. (2004) meta-analysis was published, several studies found respectable accuracy rates for detecting malingered PTSD. Specifically, the MMPI-2's Fp scale has demonstrated accuracy in the 80–90% range based on a T-score cutoff of 85 or higher, from studies comparing VA disability compensation seeking military veterans instructed to simulate PTSD or respond honestly (Arbisi et al. 2006), trauma victims simulating PTSD vs. genuine workplace injury claimants

(Efendov et al. 2008), and college students simulating PTSD vs. genuine workplace injury claimants (Marshall and Bagby 2006).

In addition to traditional validity measures, newer measures such as the Response Bias Scale have demonstrated promise and have even highlighted the importance of the evaluation context. For instance, one study demonstrated greater than 90% accuracy in detecting simulated PTSD (Lange et al. 2010) and another that it adds incremental prediction to traditional MMPI-2 validity scales in a disability forensic but not a criminal forensic sample (Wygant et al. 2010). This latter study, as well as a previous study by the same research group (Wygant et al. 2007), highlights the importance of considering context in use of the MMPI-2 and its most updated version the MMPI-2-RF. In this latter study, they demonstrated, for instance, that when a cognitive symptom validity test is failed, elevations on traditional validity measures (e.g., the F scale) are elevated only in criminal but not disability forensic samples. In other words, only the former patient types tend to fake or exaggerate psychiatric symptoms. In similar work, Greiffenstein et al. (2004) found that the Fake Bad Scale (FBS) was more sensitive to what was termed "atypical posttraumatic syndrome" than traditional validity measures in a forensic context. These patients were more likely to present with cognitive impairment, pain, and/or various types of physical complaints versus frank psychotic symptoms. While this study and others noted above may not have dealt explicitly with PTSD, they are relevant because they suggest the importance of considering the setting in which the patient is evaluated to best understand likely types of feigned response.

As compared to psychological symptom validity tests, there is much less research on cognitive symptom validity tests. Nonetheless, cognitive measures that have been demonstrated to be effective in detecting poor effort on cognitive testing in PTSD include, for instance, the WMT (Green 2003), TOMM (Tombaugh 1997), and Reliable Digit Span (Greiffenstein et al. 1994). To our knowledge, Demakis et al. (2008) is the only study to have directly compared these (and other) measures in a sample of patients with PTSD or PTSD-like symptoms. This study found that the WMT was somewhat more sensitive than, for instance, the TOMM, but the rate of false positive errors could not be determined and thus this finding should be interpreted cautiously. In any case, the paucity of research in this area limits our ability to offer test recommendations. Moreover, we do not know at present whether poor effort on cognitive testing in PTSD is different in other psychiatric disorders (e.g., schizophrenia) or neurological disorders (e.g., traumatic brain injury). Additional research in this area would be welcome. Overall, while those simulating PTSD may malinger cognitive impairment, it is important to note that this sort of feigning is likely to be less common than feigning on psychological symptom validity tests given that PTSD is, at its core, a psychological disorder. In any case, we recommend using a cognitive symptom validity test as part of the standard battery for PTSD, particularly when it is evaluated within a forensic context.

Beyond using assessment instruments, other ways to assess for malingered PTSD include gathering a large amount of detail about one's trauma to look for idiosyncrasies, and absurd reports. Also, symptoms should be queried in detail for their onset, frequency and intensity, preferably queried on multiple occasions to look for implausible reports, inconsistency, and a process of reporting that appears to be generated on the spot. Such red flags should not automatically be thought of as indicating malingering, but should be further explored. While not empirically verified, Resnick et al. (2008) notes that malingered PTSD may be evidenced by: anger at authority, blaming others, emphasizing the relationship between trauma exposure and symptoms, and, for combat veterans, relishing the telling of combat memories. According to Resnick et al. (2008), individuals with genuine PTSD present differently, but again, these statements are more anecdotal than empirically- based.

Collateral sources should be consulted to corroborate the patient's trauma exposure report and report of PTSD symptoms. Corroborating trauma exposure may be done by requesting official military records (for military-related trauma), hospital and/or police reports for an accident or interpersonal trauma, and employment records for work-related injury. Sometimes such records review may reveal other previous traumas that could account for the current symptom presentation. Collateral interviewing of other informants such as family members, employers, or associates (especially those who would not have a financial stake in the patient's evaluation findings) can help clarify if symptoms are present outside of the evaluation session. For example, co-workers could comment on work functioning, speaking to PTSD's symptoms of concentration problems, sleep difficulty, and irritability, for example.

Conclusion

The prevalence of malingering or other types of invalid responding is common in litigated PTSD. For this reason, it is incumbent on the clinician to evaluate for possible invalid responding on both cognitive and psychological measures, especially in a forensic PTSD evaluation. As is clear above, individuals alleging PTSD may feign or exaggerate cognitive symptoms, typically concentration or memory problems, and/or psychological

difficulties. When they give poor effort, neuropsychological measures are invalidly suppressed, and when they overreport psychological functioning, psychological measures are invalidly elevated. In either case, this symptom presentation affects diagnostic accuracy. Clinically, such errors in the process of evaluation during litigation are likely to lead to erroneous payments, disability, and/or rewards. For instance, Frueh et al. (2007) reported that from 1999 to 2004, the number of veterans receiving disability for PTSD rose almost 80% and total disability payments rose almost 150%—both of these are substantially higher than for other compensable disabilities. In terms of research, failure to assess malingering is likely to result in an elevated estimate of the prevalence of psychological distress and ultimate PTSD diagnosed post-trauma. Rosen (2004) has critiqued several articles on this issue; one found an 86% rate of PTSD in survivors of a maritime accident in which the ship subsequently sunk—this rate is substantially higher than the base-rate of PTSD in a community sample that experienced trauma. To conclude, it is important to recall that the DSM-IV indicates that malingering must be ruled out in diagnosing PTSD and that Rosen (2004) has encouraged PTSD researchers to clarify the litigation rate of their samples as well as the means by which malingering was evaluated.

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