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DIRECTIONS
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The Problem of Symptom Overreporting in the Assessment of PTSD in Combat Veterans

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Learning Objective

Clinicians will understand that symptom overreporting is common among combat veterans evaluated for PTSD; be aware that PTSD has a number of contributing factors to overreporting and is not necessarily associated with malingering; and understand specific assessment techniques for enhancing accurate clinical assessment of combat veterans.

Introduction

This lesson outlines the problem of apparent symptom overreporting in the assessment of posttraumatic stress disorder (PTSD) among combat veterans. It summarizes the literature regarding this assessment problem, discusses potential explanatory factors, and suggests practical strategies for addressing the problem of apparent symptom overreporting in clinical settings.

Effective therapeutic intervention with combat veterans requires accurate diagnosis and assessment of PTSD and other comorbid Axis I and II disorders, as well as accurate assessment of symptom severity and functional impairment. This assessment is complicated by a number of factors, including disorder chronicity, comorbidity, disorder uniqueness and symptom overlap, instrument limitations, somatic and neuropsychological concomitants, and apparent symptom overreporting (Frueh, Hamner, Cahill, Gold, & Hamlin, 2000). Apparent symptom overreporting is

perhaps the least understood factor in assessment and dramatically colors our ability to understand the clinical status of veterans presenting for evaluation and treatment.

Psychometric studies have consistently shown that combat veterans evaluated for PTSD routinely exhibit (a) extreme and diffuse levels of psychopathology, and (b) extreme elevations on validity scales in a "fake-bad" direction (Fairbank, Keane, & Malloy, 1983), thus complicating accurate assessment for purposes of diagnostic decisionmaking, treatment planning, and treatment outcome evaluation. Systemic factors likely play a prominent role: many veterans (69% to 94% of treatment-seeking veterans) apply for Veterans Affairs (VA) disability payments for PTSD, introducing a prominent financial incentive into the picture (Frueh, Gold, & de Arellano, 1997). Because the lifetime prevalence of PTSD is estimated between 9% and 31% for those exposed to combat (Kulka, Schlenger, Fairbank, et al., 1990), the measurement problem posed is highly relevant to the VA medical system, its clinicians, and veterans.

The Phenomenon of Apparent Symptom Overreporting

Extreme and Diffuse Levels of Psychopathology Endorsed Across Instruments:

Both inpatient and outpatient combat veterans evaluated for PTSD exhibit extreme elevations across a variety of self-report inventories, especially the *Minnesota Multiphasic Personality Inventory* (MMPI/MMPI-2). This pattern suggests gross psychopathology and acute distress across multiple dimensions of mental illness. In perhaps the first study to identify this phenomenon, Fairbank and colleagues (1983), using standardized psychometric measures, successfully differentiated a group of Vietnam combat veterans with PTSD from a group of well-adjusted combat veterans and a group of combat veterans with other nonpsychotic psychological problems. On average, the PTSD-diagnosed veterans obtained elevations above a T-score of 70 on 7 of the 10 MMPI clinical scales, with a mean 2-point code of 8-2 (the schizophrenia and depression scales); these elevations were significantly higher than those of veterans with other psychological problems. Since the study of Fairbank and colleagues (1983), additional studies have shown that combat veterans with PTSD, from World War II through the Gulf War, produce similar elevations on the MMPI/MMPI-2 clinical scales. Most studies yield 8-2 two-point codes, with extreme elevations also on scales 7, 4, 6, (the psychasthenia, psychopathic deviate, and paranoia scales) and validity scales (Hyer, O'Leary, Saucer, et al., 1986; Keane, Malloy, & Fairbank, 1984; Munley, Bains, Bloem, & Busby, 1995). These elevations typically fall within the T-score ranges of 85–110 for scale 8, 80–100 for scale 2, 75–85 for scales 6 and 7, 75–80 for scales 1 (hypochondriasis) and 3 (hysteria), and 70–80 for scale 4, all above the T-score clinical cutoff points of 65 for the MMPI-2 (70 for MMPI).

In addition to MMPI/MMPI-2 clinical scale elevations, combat veterans with PTSD produce extreme elevations on a broad range of other non-PTSD measures of acute psychological distress, including scales assessing depression, anxiety, dissociation, interpersonal problems, anger, guilt, marital maladjustment, and sexual dysfunction. For example, across studies, average scores for combat veterans with PTSD on the *Beck Depression Inventory* (BDI) range from 18 to 29 (e.g., Fairbank et al., 1983; Frueh, Smith, & Libet, 1996), indicating severe depression. Mean scores on the *Dissociative Experiences Scale* have been found to be quite high (Frueh, Johnson, Smith, & Williams, 1996), usually above the cut-off (30) suggested for a diagnosis of Multiple Personality Disorder. Combat veterans have also exhibited extreme impairment on many other measures covering virtually every domain of psychopathology, including the ***Spielberger State-Trait Anxiety Inventory, Millon Multiaxial Clinical Inventory, Positive and Negative Syndrome Scale for Psychotic Symptoms, and Social Phobia and Anxiety Inventory,* among others** (Frueh, Hamner, Cahill, et al., 2000).

Extreme Elevations on MMPI/MMPI-2 Validity Scales:

In addition to high levels of psychopathology endorsed across instruments, combat veterans who served in wars after the Korean War also tend to inflate the validity indices of the MMPI/MMPI-2 in a direction consistent with a "fake-bad" or malingering response set. In their

initial paper, Fairbank and colleagues (1983) reported a mean T-score elevation of 70 for the F scale ("infrequent" responding), while the mean T-score for the K scale ("defensive" responding) was less than 50. Most other MMPI/MMPI-2 studies have noted elevations of similar or greater magnitude across the full range of validity indices, leading many to question the validity of the obtained profiles. For example, mean T-scores for the F scale range from 70 to 100. Prominent elevations have also been found on the F-K index, and on scales Fb, F(p), Es, FBS, Dsr2, Ds2, LW, and O-S (e.g., Frueh, Gold, & de Arellano, 1997). These validity scale elevations have been associated with elevations on clinical scales of the MMPI-2 and other self-report measures of acute psychopathology (Gold & Frueh, 1999), increased physiological reactivity to traumatic cues (Orr et al., 1990), and a poorer likelihood of positive treatment outcome (Perconte & Griger, 1991).

Although findings of dramatic validity scale elevations in combat veterans do not indicate malingering per se, the extreme patterns obtained resemble those produced by samples of normal adults instructed to fake PTSD on the MMPI-2 (Elhai, Gold, Frueh, & Gold, 2000; Wetter, Baer, Berry, Robison, & Sumpter, 1993). While F, K, and F-K indices have long been used as indicators of test validity on the MMPI/MMPI-2 (Graham, Watts, & Timbrook, 1991), no single cutoffscore for any index is sufficient to determine malingering for all populations (Rogers, Sewell, & Salekin, 1994). With regard to disability compensation-seeking populations, individuals from a variety of potentially compensation-seeking populations achieve similar greater elevations on the validity indices than other normative groups, and therefore different norms or cutoff points may be needed for patients seeking some form of disability payment compared with patients not seeking compensation (Rothke et al., 1994).

Because of the elevated validity scores in combat veterans evaluated for PTSD, serious doubt has been cast as to the response validity of a substantial proportion of this population. Furthermore, combat veterans have been shown to inflate their reports of combat exposure over time (Southwick, Morgan, Nicolaou, & Charney, 1997), which further damages the credibility of their symptom reports. Interestingly, WW II/Korean War combat veterans and prisoners of war do not seem to show the dramatic F-scale elevations found in veterans of later conflicts (Sutker, Winstead, Galina, & Allain, 1990).

Complications for Diagnostic Decision-making, Clinical Care, and Evaluation of Treatment Outcome

Overall, the combination of elevated scores produced on clinical measures of psychopathology and test validity scales in combat veterans evaluated for PTSD complicates assessment and treatment of the disorder in several ways. At the level of the individual veteran, it makes differential diagnosis extremely difficult in many cases, frustrating clinicians attempting to develop treatment plans. Even when clinicians are inclined to believe that individual veterans are presenting with genuine distress, it is almost impossible to know which symptoms to target as priorities when a veteran endorses "everything" at an extreme level.

The evaluation of treatment outcome results in clinical trials is a related area of concern. There is currently a lack of successful treatment efficacy data for combat-related PTSD, and PTSD treatment effect sizes have been smaller for samples of veterans than nonveterans (Hidalgo et al., 1999). **This decreased treatment efficacy may be partially attributed to the overreporting response pattern and the reluctance of many veterans to acknowledge therapeutic gains due to financial incentives not to do so.** Although there has been little direct empirical investigation of the association between symptom reporting patterns and treatment outcome, several studies have presented results that deserve mention. One study found that veterans classified on the MMPI as "symptom overreporters" were less likely to manifest improvement after 6 weeks of partial hospitalization, even though clinicians did not view them as more dysfunctional at pretreatment (Perconte & Griger, 1991). Furthermore, several treatment outcome studies have found prominent disparities between veterans' extreme self-reported symptom patterns and other data collected via clinician ratings, psychophysiological measures, and daily symptom frequency counts (Frueh, Turner, Beidel, Mirabella, & Jones, 1996; Pitman et al., 1996; Reist et al., 1989).

Finally, data from a study of veterans treated for PTSD within the VA system indicated that compensation-seeking status had a significant treatment effect for inpatient veterans, although no such effect was found for outpatient veterans (Fontana & Rosenheck, 1997). Additional research is necessary to provide a better understanding of how compensation-seeking status influences the evaluation of treatment outcome.

Possible Explanations for the Apparent Symptom Overreporting Phenomenon

A variety of explanations for this apparent overreporting response style have been considered, including illness severity and complexity, a single global distress factor (e.g., "negative affect"), compensation-seeking incentives, and malingering.

Severity and Complexity of Actual Illness:

Genuine psychopathology is one obvious explanation for the extreme symptom reporting pattern described above. That is, the complex combination of psychiatric comorbidity, interpersonal maladjustment, symptom chronicity, and degree of trauma exposure account for the elevations across clinical measures. **Data from structured clinical interviews show that combat-related PTSD typically is accompanied by multiple current and lifetime comorbid Axis I and II disorders, including substance abuse, major depression, psychosis, and other anxiety disorders** (e.g., Keane & Wolfe, 1990). Also associated with combat-related PTSD are interpersonal and behavioral problems, including social avoidance and anxiety, violence and anger control problems, unemployment, impulsive behavior, and family discord (Frueh, Turner, Beidel, & Cahill, 2001). Given the high rates of concurrent psychiatric disorders, interpersonal difficulties, and disorder chronicity, it makes intuitive sense that psychological self-report inventories would show high levels of dysfunction across different domains. **Although not conclusive, studies provide partial support that elevations on self-report measures are associated with greater comorbidity** (e.g., Boudewyns, Albrecht, Talbert, & Hyer, 1991) and greater trauma exposure (e.g., Sutker & Allain, 1991) in veteran samples.

Single Global Distress Factor Hypothesis:

Another possible explanation for the phenomenon of apparent symptom overreporting is that a single factor (e.g., "negative affect") is driving symptom reporting patterns. According to this explanation, acute levels of perceived global distress lead veterans to overestimate their actual level of psychopathology across multiple domains, and may even account for the high levels of psychiatric comorbidity described above. In contrast to the illness severity and complexity explanation, it suggests that high scores on measures of different domains (e.g., depression, anxiety, thought disturbance, anger) are a result of a single global distress factor, not multiple distinct problem areas. In a study that points toward this conclusion, Shalev, Freedman, Peri, Brandes, and Sahar (1997) examined the utility of several different psychometric instruments to predict PTSD symptomatology in a sample of civilian trauma victims. Although not conducted with veterans, results of this study indicated that specific PTSD measures (e.g., *Impact of Events Scale, Mississippi Scale*) were no better at predicting PTSD symptoms than general measures of distress (e.g., *State-Trait Anxiety Inventory*) were.

One way to evaluate the issue of single versus multiple factors more thoroughly is to examine data from factor analytic studies conducted with combat veterans. Analyses across these studies have obtained from 1 to 6 factors for the construct of PTSD itself (Engdahl, Eberly, & Blake, 1996; Keane, Caddell, & Taylor, 1988; King, Leskin, King, & Weathers, 1998). Although there is some evidence to suggest that a dominant single factor drives much of the symptom reporting on measures of PTSD, and possibly depression, these data are not conclusive and do not provide a full explanation for the apparent symptom overreporting phenomenon.

Compensation-Seeking Status:

Some researchers have speculated that the phenomenon of apparent symptom overreporting may reflect motivation of veterans to present as severely disabled to obtain disability compensation (Atkinson, Henderson, Sparr, & Deale, 1982). Several studies have examined the influence of compensation-seeking status on symptom reporting patterns using self-report measures of psychopathology. Although results from two early studies

were mixed (Jordan, Nunley, & Cook, 1992; Schneider, 1979), conclusions may be limited by the manner in which compensation-seeking was defined and in how subjects were grouped for analyses.

Accurately understanding the role of compensation-seeking status requires a definition of compensation-seeking, which maximally differentiates individuals with and without financial incentives. Such differentiation is complicated by the fact that financial incentives do not necessarily vary directly with current level of disability status. Thus, two studies (Frueh et al., 1997; Frueh, Smith, & Barker, 1996) examined this issue by differentiating two groups of veterans on the basis of financial incentive. "Compensation-seeking" veterans were currently seeking, or planning to seek, VA disability compensation or increases in existing disability payments (i.e., a rating increase) for PTSD; "Non-compensation-seeking" veterans were *not* intending to seek VA disability compensation for their symptoms of PTSD. The percentage of veterans classified as "compensation-seeking" in each of these two studies was identical (69%). These compensation-seeking groups produced significantly more pathological scores on clinical measures and obtained much higher elevations on MMPI-2 validity scales (e.g., F–K) associated with malingering than did "non-compensation-seeking" veterans. These results were obtained even though the two groups did not differ in frequency of PTSD diagnoses. Furthermore, differences on most indices exceeded effect sizes of 1.0, even when the effects of income, global assessment of functioning (GAF), and clinician-rated severity of PTSD were controlled for.

There also is evidence to suggest that the MMPI validity scales can be used as a screening instrument to identify veterans who may be exaggerating their psychopathology to gain disability compensation. Although compensation-seeking was not statistically overrepresented among veterans with F-K indices of $\geq$ 13 (Smith & Frueh, 1996), veterans with F-K indices of $\geq$ 22 (or Fp $\geq$ 8) were much more likely to be compensation-seeking, and scored much higher on self-report measures of psychopathology, despite having lower rates of PTSD diagnoses and similar rates of other comorbid diagnoses (Gold & Frueh, 1999).

Overall, although results of studies examining compensation-seeking are somewhat mixed, recent studies using a definition of compensation-seeking that maximizes financial incentives indicate that there is a strong association between compensation-seeking and elevated scores on MMPI clinical and validity scales, as well as other self-report measures of psychological distress. While not evidence of malingering per se, these data suggest that the specter of available disability benefits does influence the way in which veterans describe their difficulties, leading them to exaggerate symptoms either consciously or unconsciously. Nevertheless, even the mean scores for non-compensation-seeking veterans were generally quite high, suggesting that compensation-seeking status is only a partial explanation for the apparent overreporting phenomenon.

Malingering:

The compensation-seeking explanation suggests that the symptom reports of many veterans are driven by unconscious reporting biases. However, **a substantial subset of this population has been thought to be intentionally faking** (i.e., malingering) **their clinical presentation of PTSD symptoms** (e.g., Resnick, 1997). Therefore, we will consider the issue of malingering separately from compensation-seeking, even though financial disability payments are likely the primary motivation for PTSD malingerers. At this point, the true extent of malingered combat-related PTSD is not known, although cases of factitious and malingered PTSD have been documented in the literature.

Research on the detection of malingered PTSD is scant, and has focused primarily on self-report measures. Fairbank, McCaffrey, and Keane (1985), McCaffrey and Bellamy-Campbell (1989), and Frueh and Kinder (1994) all concluded from role-informed simulation studies that the MMPI is a valuable psychometric instrument for discriminating role-informed PTSD malingerers from PTSD patients. However, their conclusion is not accepted by all. For example, Lees-Haley (1989) found that untrained role-informed subjects were able to successfully fake PTSD (in response to a civilian accident) on the MMPI Keane *PTSD Subscale* (a measure with high face validity). In a study more relevant to combat-related PTSD, Perconte and Goreczny (1990) attempted to replicate the findings of Fairbank and colleagues (1985) using a sample of Vietnam combat veterans, finding that identified

PTSD fabricators were not statistically different from the PTSD patients on most MMPI scales.

Two studies have examined the ability of role-informed malingerers to fake PTSD on the *Mississippi Scale*, a measure of PTSD symptomatology with a high degree of face validity (Frueh & Kinder, 1994; Lyons, Caddell, Pittman, Rawls, & Perrin, 1994). The results from each of these studies show that role informed malingerers were able to achieve scores on the *Mississippi Scale* that were equal to or greater than those obtained by veterans with PTSD. Thus, this measure, designed specifically to assess PTSD related symptoms, appears to be highly vulnerable to dissimulation.

There is good evidence that psychophysiological assessment (e.g., heart rate, blood pressure, skin conductance), which has been shown to have good sensitivity and specificity in the diagnosis of combat-related PTSD (e.g., Blanchard, Kolb, & Prins, 1991), may be less vulnerable to dissimulation. Gerardi, Blanchard, and Kolb (1989) compared the physiological reactivity of 18 combat veterans with PTSD to that of 18 combat veterans without PTSD. Results showed that when subjects were instructed to alter their physiological responses to audiotaped combat sounds, the veterans with PTSD were unable to, while veterans without PTSD were able to increase certain physiological responses, such as heart rate and forehead electromyogram (EMG) to appear more similar to the PTSD veterans. Nevertheless, PTSD and non-PTSD subjects were still discriminated at a moderate rate (6 of 9, or 66%, were identified in a discriminant analyses), suggesting that psychophysiological assessment may show some promise in identifying those who are attempting to feign the disorder. Similar results were obtained by Orr and Pitman (1993).

Practical Implications for Clinicians

This lesson has practical implications for clinicians conducting evaluations with combat veterans. First and foremost, **clinicians should be aware of the response bias often seen in this population and should not rely only on self-report inventories or other assessment procedures that may be vulnerable to symptom overreporting;** nor should they necessarily dismiss the symptom reports of veterans who produce validity scale elevations above traditional cutoff points. Clinicians might consider relying on the "funnel" metaphor of assessment (see Hawkins, 1979). **The global assessment provided by self-report inventories and clinical interviews may be helpful in identifying (or funneling) general domains of relative psychopathology and interpersonal maladjustment, but more narrow behavioral assessments, patient ratings, or other assessment strategies are then necessary to identify specific deficits, needs, or severity of psychopathology.** We next offer several strategies for how to accomplish this.

Make Better Use of the MMPI-2:

Because traditional MMPI-2 validity scales are not only sensitive to detecting malingering, but also extreme psychopathology and distress, these scales have been problematic in assessing combat veterans evaluated for PTSD. Therefore, **clinicians should be careful not to diagnose a combat veteran as a malingerer based solely on elevated MMPI-2 validity scales using traditional cutoff scores** (e.g., F-K > 13). In other words, clinicians should expect validity scale elevations, up to a point, as one aspect of the clinical syndrome associated with combat-related PTSD. However, we have found that several of the MMPI-2 validity scales can be used as effective screening instruments.

In recent years, the *Infrequency-Psychopathology Scale* (Fp; Arbisi & Ben-Porath, 1995) has been used in conjunction with traditional validity scales. This is an infrequency scale that was normed on psychiatric patients and therefore provides an index of symptom overreporting while controlling for psychopathology and distress. We have previously recommended using an Fp cutoff score of 8 (and/or an F-K cutoff of 22) to detect combat veterans exaggerating PTSD (Gold & Frueh, 1999), identifying those for whom additional careful evaluation is needed. The Fp index has outperformed F in discriminating civilian PTSD patients from role-informed PTSD malingerers, with an Fp cutoff score of 5 yielding 75%–83% sensitivity, and 76%–78% specificity (Elhai, Gold, Sellers, & Dorfman, 2001). However, in another study Fp failed to outperform F in distinguishing malingered from genuine combat-related PTSD (Elhai et al., 2000); therefore, Fp's utility with trauma victims (especially combat veterans) diagnosed with PTSD remains

unclear. Caution is warranted and we recommend a conservative approach to its use.

To further improve MMPI-2 validity scales in discriminating genuine from malingered PTSD, a new validity scale, the *Infrequency-Posttraumatic Stress Disorder Scale* (Fptsd) was recently created (Elhai, Ruggiero, Frueh, Beckham, Gold, & Feldman, 2001). This index was normed on a sample of PTSD-diagnosed combat veterans seeking treatment, and results indicate that, in relation to previously established MMPI-2 overreporting scales (F, Fb, and Fp), Fptsd was significantly better at discriminating simulated from genuinely reported PTSD, and less sensitive to psychopathology and distress. Additional studies are needed to further evaluate the effectiveness of Fptsd as a validity scale for combat veterans.

Include Assessment Data from Other Sources:

Clinicians evaluating combat veterans for PTSD and associated features should acquire assessment data from a variety of sources, especially when seeking to clarify the meaning of elevations on MMPI-2 clinical and validity scales. We next discuss a number of assessment strategies that may bypass potential self-report biases, and may therefore represent valuable sources of additional information.

Structured Interviews

A variety of structured interviews are also used with this population. The two most commonly used instruments are the *Structured Clinical Interview* for DSM-III-R (SCID; Spitzer, Williams, Gibbon, & First, 1990) for evaluating the range of Axis I pathology, and the *Clinician Administered PTSD Scale* (CAPS; Blake et al., 1990) for assessing PTSD symptomatology. The CAPS-1 is a 17-item clinical rating scale designed specifically to rate frequency and severity of PTSD symptomatology according to DSM-III-R (APA, 1987) criteria. The scale has been shown to have strong inter-rater reliability (0.92–0.99) for each of the three PTSD symptom clusters, a high degree of internal consistency (0.73–0.85), to be highly correlated with the *Mississippi Scale* (0.70–0.91) and MMPI-2 PK scale (0.77–0.84), and to have good diagnostic utility compared with the SCID PTSD module (Weathers & Litz, 1994). Although the CAPS-1 may not be quite as vulnerable to exaggerated/malingered symptoms as self-report inventories because the format calls for clinician judgment in the formation of clinical ratings, this measure relies heavily on the verbal symptom reports of veterans. Thus, structured interviews are also likely to be affected by the symptom overreporting phenomenon, although the extent to which this is true is currently unknown.

Psychophysiological Reactivity:

The prominence of autonomic symptoms in combat veterans with PTSD has been documented consistently via studies of psychophysiological responding, which show clear evidence of heightened reactivity in combat veterans with PTSD (Keane et al., 1998). In these studies, standardized combat-related cues (e.g., combat sounds and pictures) or individually developed scripts are presented while physiological reactivity is measured via blood pressure (BP), heart rate (HR), EMG, or galvanic skin response (GSR). Combat veterans with PTSD have significantly larger BP and HR responses during traumatic cue exposure than do combat veterans without PTSD, although EMG and GSR have proven to be less reliable for purposes of differentiation (e.g., Elhai et al., 1990). Sensitivity and specificity for the studies cited above ranged from 0.70–0.90 and 0.80–01.00, respectively. Furthermore, psychophysiological reactivity may provide relatively good discrimination even when individuals are attempting to exaggerate or disguise their responses (Gerardi et al., 1989). Thus, this assessment modality is less susceptible to the negative reporting bias (conscious or unconscious) potentially found with self-report measures.

Patient Self-Monitoring:

Very little is known about the use of self-monitoring or patient ratings with combat veterans. Several treatment studies have used this assessment modality, with patients keeping a daily log of relevant symptoms (e.g., nightmares, flashbacks) and social activities, as an outcome measure in evaluating the efficacy of PTSD treatment, (Frueh, Turner, et al., 1996; Pitman et al., 1996). Interestingly, results have shown that veterans reported significant symptom reductions, such as fewer nightmares and increased social activities, even though no

such changes were noted on more global self-report inventories (e.g., Mississippi Scale) administered at the same times. Thus, daily patient ratings may be a promising behavioral assessment modality for use with this population, and may be less vulnerable to symptom overreporting than self-report inventories.

Behavioral Assessment:

As with patient ratings, little is known about the use of other forms of behavioral assessments to evaluate the functioning of combat veterans evaluated for PTSD. Behavioral assessment can be multifaceted, include a variety of strategies, and may be used to evaluate both psychiatric symptoms and social/occupational functioning. A functional assessment conducted with veterans and/or collateral informants could provide valuable information for the development of behavioral treatment plans. In addition, social skills have been successfully evaluated in a variety of clinical populations (e.g., schizophrenic patients) via behavioral assessments. This type of evaluation requires patients to respond to a variety of role-played social situations while the clinician makes ratings on the quality of social skills exhibited (e.g., assertiveness, anger expression). Although this strategy does not provide information about how well or how often an individual uses appropriate social behaviors outside of the clinic setting, it does allow assessment of an individual's repertoire of social behaviors.

Neurobiological Markers:

A growing body of recent research points toward a distinct set of neurobiological markers (e.g., the hypothalamic-pituitary-adrenal axis) that differentiate PTSD from other affective and anxiety disorders (Bremner et al., 1997; Yehuda, Boisoneau, Lowy, & Giller, 1995). This line of research is still in its infancy, even relative to other areas of PTSD inquiry. Thus, it does not offer a feasible method of implementation at this point. However, as with psychophysiological assessment, it may hold future promise for providing objective measures of PTSD cases that are not vulnerable to simulation or exaggeration.

Summary

Psychometric studies have consistently shown that combat veterans evaluated for PTSD apparently overreport psychopathology as exhibited by (a) extreme and diffuse levels of psychopathology across a variety of instruments (e.g., MMPI/MMPI-2, *Beck Depression Inventory*) that measure different domains of mental illness, and (b) extreme elevations on the validity scales of the MMPI/MMPI-2, in a "fake-bad" direction. The phenomenon of this ubiquitous presentational style is not well understood. We have described and delineated the assessment problem posed by this apparent symptom overreporting and reviewed the literature regarding several potential explanatory factors, including illness severity and complexity (e.g., comorbidity, chronicity, and degree of trauma exposure), a single response factor (e.g., negative affect), compensation-seeking status, and malingering. In addition to self-report inventories, we recommend the use of other assessment strategies, including structured interviews, psychophysiological recordings, patient self-ratings, and behavioral assessments where appropriate.

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Questions Based On This Lesson

To earn CE credits, answer the following questions on your quiz response form.

5. Which one of the following best describes the symptom-reporting pattern exhibited by many combat veterans evaluated for PTSD on the MMPI-2 and other assessment instruments?

A. Defensive

B. Extreme and diffuse

C. Random

D. None of the above

6. Symptom overreporting among combat veterans evaluated for PTSD may be explained by all of the following factors, *except*:

A. Type A personality

B. Illness severity and complexity

C. Compensation-seeking incentives

D. Single global distress factor

7. Approximately what percentage of combat veterans evaluated for PTSD in outpatient clinics have been found to be seeking PTSD-related disability compensation?

A. 3%

B. 19%

C. 69%

D. 99%

8. Clinicians evaluating combat veterans for PTSD and associated features should acquire assessment data from a variety of sources which include all of the following, *except*:

A. Patient self-monitoring

B. Psychophysiological measures

C. The *Luria-Nebraska Neuropsychological Battery*

D. Structured interviews