TREATMENT OF POSTTRAUMATIC STRESS DISORDER IN MILITARY AND VETERAN POPULATIONS

MARK CREAMER AND DAVID FORBES
Australian Centre for Posttraumatic Mental Health and University of Melbourne

While concerns about the psychological effects of war are not new, only recently has systematic attention been paid to such problems among past and present military personnel. There is increasing recognition that mental health has serious implications for operational performance, retention, and compensation. Although little controlled research exists with this population, preliminary evidence suggests that psychological treatments for posttraumatic stress disorder may be beneficial, albeit less so than for civilian populations. This article reviews evidence for each of several psychological treatment stages: stabilization and engagement, psychoeducation, symptom management, prolonged exposure, cognitive restructuring, and relapse prevention, with particular reference to the clinical issues raised by military personnel. Possible explanations for reduced treatment effects in this population compared with civilians are discussed.

Mark Creamer and David Forbes, Australian Centre for Posttraumatic Mental Health (ACPMH) and Department of Psychiatry, University of Melbourne, West Heidelberg, Victoria, Australia.

Correspondence regarding this article should be addressed to Mark Creamer, ACPMH, ARMC Repat Campus, P.O. Box 5444, West Heidelberg, Victoria 3081, Australia. E-mail: markcc@unimelb.edu.au

Departments of Veterans’ Affairs and, more recently, defense forces around the world have become increasingly concerned with the development of mental health problems, particularly posttraumatic stress disorder (PTSD) and related conditions, among past and present military personnel. The issue has serious implications for operational performance, retention rates, and subsequent compensation claims. Rates of PTSD following military service vary greatly across deployments and studies, with figures ranging from 8% of peacekeepers following Somalia (Litz, Orsillo, Friedman, Ehlich, & Batres, 1997) to 19% among veterans of the 1991 Gulf War (Sutker, Uddo, Brailey, & Allain, 1993). For at least half of those affected, the disorder shows a chronic course in veterans; the National Vietnam Veterans Readjustment Study (NVVRS; Kulka et al., 1990), for example, reported a lifetime PTSD prevalence of 31%, with current rates of 15%. That is, half of those Vietnam veterans who had ever had PTSD still had it 20 or so years later. While there may be some debate about the validity of the various prevalence figures, the general principal remains: PTSD is a chronic and disabling condition that affects a significant proportion of veterans.

In that context, it is somewhat surprising that little adequately controlled treatment research has been conducted with this population. The outcome data that do exist suggest that psychological and pharmacological treatments for military-related PTSD may be beneficial, albeit perhaps less so than for some other populations. Following a brief discussion of treatment goals, this article reviews the major components of psychological treatment with particular reference to veteran and military populations. Possible explanations for the modest treatment effects with this population are discussed.
Treatment Goals

Clinical experience indicates that veterans frequently present for treatment many years following their deployment experiences. Most were in their late teens or early 20s when they were exposed to combat or other military trauma but do not present for treatment until considerably later in life. By this time, the presentation is often complex, with high levels of comorbidity and significant deterioration in social and occupational functioning (Creamer, Morris, Biddle, & Elliott, 1999). In such a scenario, a goal of eliminating all symptoms of PTSD and returning the veteran to pretrauma levels of functioning is probably unrealistic. While empirical data in this area are lacking, it is reasonable to assume that treatment goals should be more modest, with an emphasis on broader psychosocial rehabilitation. Helping the veteran with relationships, social reintegration, and vocational functioning (e.g., voluntary work and leisure skills) may be as important a focus for intervention as a reduction in core PTSD symptoms.

For someone who is still in the military, however, the goals may be quite different. While reducing PTSD symptoms is clearly important, this in itself may not be sufficient. A key goal may be that of increasing resilience and reducing the risk of relapse upon future traumatic exposure (e.g., during another deployment). This may constitute a dilemma for the clinician. It is reasonable to assume that a prior history of psychiatric disorder, including PTSD, is a risk factor for the development of PTSD following subsequent exposure (Brewin, Andrews, & Valentine, 2000; Ozer, Best, Lipsey, & Weiss, 2003). Currently, there is little or no information regarding the extent to which successful treatment is able to ameliorate risks following subsequent exposure. This, of course, has major implications for the advice that clinicians may provide regarding return to active duty. In the final analysis, such decisions will be a matter of clinical judgment, based, for example, on factors such as prior history and preexisting risk factors, the severity of the current presentation, response to treatment, and the individual’s motivation.

Stages of Cognitive–Behavioral Treatment

While several psychological approaches have been proposed for the treatment of chronic PTSD in military populations (Foa, Keane, & Friedman, 2000a; Shalev, 1997), few have been the focus of adequately controlled treatment outcome research. Nevertheless, the following sections outline the typical phases of treatment with particular reference to their relevance and application for military populations. Where available, the empirical research to support the intervention is reviewed, although it is acknowledged that some phases remain simply “good clinical practice” rather than evidence-based treatment. The following is based largely on a cognitive–behavioral (CBT) paradigm, since these approaches have most often been the focus of randomized controlled trials (Rothbaum, Meadows, Resick, & Foy, 2000). It should not be assumed, however, that the following interventions are the exclusive domain of CBT. On the contrary, much of the following would be used also in intervention models derived from alternative theoretical perspectives.

Stabilization and Engagement

Good clinical practice would dictate that the therapist’s first concern should be stabilization prior to the commencement of interventions directed specifically at PTSD (Flack, Litz, & Keane, 1998). If the veteran, for example, is actively suicidal or homicidal, is in the midst of a major psychosocial crisis, or requires practical assistance with concerns such as personal safety or accommodation, those issues should be addressed as a matter of priority before embarking on treatment.

Clinical experience suggests that engagement in treatment, and the development of a therapeutic relationship, is often a significant problem for veterans and serving military personnel with PTSD (Flack et al., 1998). There are several reasons why this might be particularly problematic for this population. First, there is some evidence to suggest elevated rates of childhood trauma among military recruits when compared with the general community (Merrill et al., 1998; Rosen & Martin, 1996; Stretch, Knudson, & Durand, 1998). It is reasonable to speculate that a history of abuse or neglect will adversely affect the individual’s ability to form meaningful relationships, perhaps mitigating against engagement in a strong therapeutic relationship. Second, military training, designed to produce effective combatants, not unreasonably promotes a high level of emotional “toughness” and resilience. Such train-
ing may foster an ability to “shut down” affective states in order to function effectively in combat or other operational environments. While this would undoubtedly have been beneficial during the deployment, it may be an impediment when it comes to seeking and engaging in treatment. Finally, trust of civilians may have been damaged by the existence of antiwar sentiments, as well as negative and hostile homecoming experiences. Whatever the reason for the difficulties often encountered, spending adequate time in the development of a strong therapeutic relationship is an important first step in treatment with military personnel and veterans. Indeed, it may be speculated that one explanation for poorer treatment outcome in veteran populations is that highly structured controlled treatment trials allow insufficient time for engagement.

Psychoeducation

While empirical data are lacking, clinical experience suggests that psychoeducation about the condition and about the proposed treatment is another essential step early in therapy (Flack et al., 1998). It can do much to reduce the secondary distress (about the symptoms) and to enhance the credibility of the therapist and the collaborative nature of the relationship. Veterans often hold beliefs about personality and training factors that “should” have protected them from traumatization and, as such, indicate that they are “weak” for developing PTSD. Psychoeducation can begin to address this by providing information about the etiology and incidence of PTSD among veterans across the spectrum of military service, experience, and rank.

In terms of etiology—or a framework for the veteran to understand his or her condition—military deployments are often characterized by an additional level of complexity: biochemical exposures. There may be prophylactic medical interventions, such as predeployment vaccinations or drugs to counteract chemical weapons, as well as actual or threatened exposure to noxious agents in the form of biological, chemical, or nuclear weapons; “smoil” (in the Gulf conflicts); or defoliants (in Vietnam). These factors complicate the clinical picture by raising the possibility of an alternative etiology. It may be speculated that it is sometimes easier for the veteran to avoid psychological formulations and to focus instead on purely physical explanations for his or her complaints, perhaps associated with a reduced personal responsibility for recovery. It is probably countertherapeutic for the practitioner to engage in a debate about etiology. It may be more helpful to acknowledge these alternative explanations but to focus on the more important issue that, regardless of the cause, successful psychological treatment may serve to ameliorate both physical and psychological symptoms. Indeed, it is worth emphasizing the recent successes achieved in the psychotherapeutic treatment of physical symptoms associated with Gulf War syndrome (Donta et al., 2003).

Symptom Management

The area of symptom management in general, and anxiety management in particular, has been the focus of considerable interest in PTSD from both clinical and research perspectives. Veterans presenting with PTSD often feel frightened, vulnerable, and out of control. Some kind of symptom management, usually in the form of stress-inoculation training (SIT; Meichenbaum, 1985), is often a useful first step in treatment. Strategies would often target each domain of the presenting symptom profile, including physiological components (e.g., relaxation, controlled breathing, aerobic exercise), cognitive components (e.g., self-statements, distraction, thought stopping), and behavioral components (e.g., daily-activity scheduling, social reintegration).

Several studies have examined combination approaches such as SIT with reasonably encouraging results in nonveteran PTSD populations such as rape victims (see Rothbaum et al., 2000, for a review). The few controlled studies that have investigated anxiety-management interventions with veterans (e.g., Silver, Brooks, & Okenchain, 1995; Watson, Tuorila, Vickers, Gearhart, & Mendez, 1997), however, generally report more modest benefits. As always, however, the empirical data must be balanced against clinical experience. There are good reasons to assume that an early focus on arousal reduction, particularly for younger veterans and currently serving personnel, may be beneficial. Military deployments are often characterized by a constant presence of threat to oneself and others, resulting in prolonged periods of autonomic arousal (often for many months at a time). This sustained stress response may contribute to the persistent hyperarousal characteristic of chronic, combat-related
PTSD. While this state of hypervigilance may have been appropriate while on deployment, it is the failure to “recalibrate” the threat-arousal system on return that causes problems. Thus, it is often useful to devote considerable time in the early stages of treatment to teaching strategies for effective reduction of arousal. Certainly, clinical experience suggests that more intensive exposure-based or cognitive interventions with this population are extremely difficult until improved arousal management has been achieved (Flack et al., 1998).

The issue of anger is worthy of specific mention under the heading of symptom management, since it is a particularly prominent feature of combat-related PTSD (Novaco & Chemtob, 2002) and is likely to impact negatively on treatment outcome (Forbes et al., 2002). It is interesting to note that the pairing of stress and anger is often rehearsed in military training in order to increase the likelihood of responding to threat with anger or aggression, rather than with fear and vulnerability. In subsequent clinical contexts, the task of distinguishing these learned characteristics from the symptomatic anger and numbing associated with PTSD can be difficult. Whatever the origin, however, it is important to actively address this aspect of the presentation.

Several possible explanations have been proposed as to why anger interferes with PTSD treatment. Foa, Riggs, Massie, and Yarczower (1995), for example, have argued that anger impairs the veteran’s ability to engage in the trauma-related fear during exposure treatments, thereby preventing habituation. Forbes et al. (2002) focused on the impact of anger on the therapeutic relationship, suggesting that it interferes with the veteran’s ability to engage in the therapeutic alliance. They proposed that this not only impacts negatively on symptom reduction but may also result in premature termination of treatment (Stevenson & Chemtob, 2000). Finally, it may be speculated that severe anger reflects a more general tendency toward externalization of responsibility and blame, inhibiting the self-reflection required for meaningful change in therapy (Deffenbacher, 1999). Whatever the explanation, the high levels of anger in combat veterans with PTSD may, in part, account for the more modest recovery rates quoted in the literature for military populations (e.g., Shalev, 1997).

Although there is little or no research on the sequencing of treatment in PTSD, it is reasonable to assume on the basis of the above discussion that treating severe anger prior to PTSD-specific interventions may improve outcomes. While a 12-session CBT intervention was shown to reduce anger reactions and improve anger control in veterans with PTSD (Chemtob, Novaco, Hamada, & Gross, 1997), the potential benefits of applying such interventions prior to addressing the core symptoms of PTSD have yet to be demonstrated. It would be, however, an interesting focus for future investigation.

**Exposure Treatments**

While the symptom-management strategies described above will often provide some relief, prolonged exposure (PE) to the traumatic memories is often considered essential for long-term recovery from trauma. Widely used in the management of anxiety disorders for many years, PE constitutes a central component of successful treatments for PTSD, and a large body of empirical research supports the efficacy of this approach in both civilian and veteran populations (Rothbaum et al., 2000). While the term exposure derives from the behavioral literature, it is likely that phrases such as “working through the trauma” or “coming to terms with the experiences” refer to a similar process. The basic process involves assisting the person to confront the feared stimuli and to remain engaged until the anxiety reduces. It would be common to develop a hierarchy of feared objects or situations and to work through them progressively in order of difficulty. In other anxiety disorders, of course, the feared stimuli are often external (e.g., a spider in spider phobia or contamination in obsessive–compulsive disorder) and the exposure is carried out in vivo (i.e., live). In PTSD, while there may be external cues (places, people, activities) to be included as part of the exposure hierarchy, the main feared stimulus is the painful memories. It is these that become the focus of imaginal exposure. The veteran is helped to repeatedly talk through the traumatic incident(s) one at a time until the anxiety has reduced (or “habituated”). Excellent descriptions of how to conduct PE in PTSD are provided elsewhere (Foa & Rothbaum, 1998).

Much of the early work on exposure therapy in PTSD was conducted with Vietnam combat veterans, with several randomized controlled trials appearing in the late 1980s and early 1990s (see, for a review, Frueh, Turner, & Beidel, 1995).
While all studies found PE to be superior to control conditions, there was considerable variability, and benefits were modest. In a study of 24 combat veterans, for example, Keane and his colleagues (Keane, Fairbank, Caddell, & Zimering, 1989) found significant improvements in anxiety and depression, as well as in the reexperiencing symptoms of PTSD, using imaginal exposure compared with a wait-list control. Similar results have been achieved in other studies of PE in the treatment of combat-related PTSD (see, e.g., Boudewyns, Hyer, Woods, Harrison, & McClone, 1990; Cooper & Clum, 1989). These treatment effects, however, were clinically small when compared with those achieved using exposure with civilian populations (e.g., Foa et al., 1999; Resick, Nishith, Weaver, Astin, & Feuer, 2002).

While this may be due, in part, to the nature of the population, it may also reflect the fact that exposure was not always implemented in an optimum fashion in the veteran studies. Many, for example, suffer from problems such as inadequate session length and inconsistent application of best-practice principals for imaginal exposure. There is a pressing need for rigorous clinical trials of exposure in the treatment of PTSD, using contemporary best-practice principals, with veteran populations.

More recently, a new medium for conducting PE has appeared in the form of virtual-reality exposure (VRE; Rothbaum et al., 1999). During the treatment, veterans wear a head-mounted display unit providing computer-generated visual and auditory cues consistent with a virtual “Vietnam.” Initial results for this approach are encouraging (Rothbaum, Hodges, Ready, Graap, & Alarcon, 2001), and more work is indicated to make the procedure more accessible and generalizable across individual traumatic experiences.

In the context of exposure treatment, it is important to remember that it would be common for personnel to experience a number of traumatic events in the course of lengthy military deployments. Multiple traumatization may influence the range and severity of subsequent symptoms, as well as treatment response (Shalev, 1997). In planning a PE intervention with veterans, therefore, it is essential to take a thorough trauma history in order to be clear about the range of potentially traumatic memories that may become a focus for treatment and to develop an imaginal exposure hierarchy.

Cognitive Restructuring

Cognitive restructuring, based on the original work of Beck and his colleagues (Beck, Rush, Shaw, & Emery, 1979), is sometimes included under the heading of symptom management. However, the techniques of cognitive therapy have been used with some success to treat the core symptoms of PTSD in several civilian studies (see Rothbaum et al., 2000). Indeed, an adaptation of cognitive therapy known as cognitive processing therapy (CPT; Resick & Schnicke, 1993) has been particularly successful in the treatment of PTSD among rape victims (Resick et al., 2002). Cognitive restructuring in PTSD is designed to assist the client in identifying and challenging dysfunctional thoughts and beliefs about the world, other people, or themselves that have developed or been strengthened by the traumatic experience. To date, neither cognitive therapy nor CPT has been tested adequately with military populations. This is disappointing, since many features of veterans’ traumatic experiences would seem to be eminently suitable for this type of intervention.

The nature of military deployments is such that fundamental beliefs about the self, the world, and other people may be brought sharply into question. Personnel may be confronted with death and suffering, often among civilians, on a scale that is hard to imagine and for which the person has had little preparation. The person, or colleagues, may have committed atrocities—or acts of violence that, with the benefit of hindsight, may be deemed to be atrocities—that shatter previously held beliefs about oneself and that have considerable potential impact on self-image and self-esteem.

The increased emphasis on peacekeeping and peacemaking missions has brought with it a new type of stress. The “rules of engagement” severely limit the extent to which troops can intervene in violent situations and protect innocent civilians, potentially leading to feelings of frustration, powerlessness, and lack of control, which, in turn, may serve to increase subsequent adjustment problems. Personnel may be left with powerful perceptions that the deployment was a failure or was, from the outset, immoral and unjustified. Increasing questioning of deployments by the media and the public and increasing scrutiny of the behavior of deployed troops by the media may serve to damage the sense of “being...
on the side of good and right” that has tended to provide an element of psychological protection for combatants in the past. These, and other related issues, are very likely to emerge in the context of PTSD in veterans and may be best addressed using some kind of cognitive restructuring.

Of particular relevance in this context is the development of a coherent approach to the treatment of trauma-related guilt using cognitive therapy. By definition, those things about which veterans feel most guilty are those that they are most reluctant to acknowledge and admit to another person, including the therapist. In a related vein, the military culture may discourage acknowledgement of fear. Clinical experience suggests that many veterans feel shame at the intensity of their own fear reactions and the impact of those reactions upon their combat performance. The opportunity to acknowledge the guilt, often for the first time, and to reevaluate self-appraisals in the context of therapy may be a turning point in treatment. Indeed, research has indicated that guilt negatively influences outcome for PTSD (J. R. Davidson et al., 1993).

A seminal body of work in the area of combat-related guilt is to be found in Kubany’s Cognitive Therapy for Trauma Related Guilt (CT-TRG; Kubany, 1994, 1997; Kubany & Watson, 2003). Involving a series of semistructured procedures that identify and challenge key thinking errors characteristic of combat-related guilt, a strength of this model is its systematic and rigorous approach, addressing and dismantling the guilt-related issues in a logical sequence. Although there are only limited outcome data available at this stage (Kubany, 1997; Kubany, Hill, & Owens, 2003), the approach makes good clinical sense and clearly has great potential.

Relapse Prevention and Maintenance

Although few (if any) studies have prospectively followed up veterans for an extended period following treatment, clinical experience suggests that those with a history of chronic PTSD will remain vulnerable to relapse, particularly at times of high stress and when confronted with (or hearing about) other traumatic events. It is important that veterans are prepared for this possibility and that they have strategies to deal with such situations should they arise. Much clinical practice in this area has been adapted from the fields of substance use and other addictive behaviors (Marlatt & Gordon, 1985) and would routinely revolve around the identification of high-risk times and the collaborative development of a clear plan to deal with such lapses. In more severe cases, of course, ongoing support and maintenance from a mental health professional or counseling agency may be required for a considerable period.

Eye Movement Desensitization and Reprocessing (EMDR)

In recent years, several studies have investigated the efficacy of EMDR in the treatment of PTSD in veterans (e.g., Carlson, Chemtob, Rusnak, Hedlund, & Muraoka, 1998; Rogers et al., 1999; Silver et al., 1995). Considerable attention has been devoted to this approach in PTSD and much has been written about its purported efficacy (e.g., Chemtob, Tolin, van der Kolk, & Pitman, 2000; P. R. Davidson & Parker, 2001; Foa et al., 2000a). Although controversial, the technique clearly has appeal in terms of its brevity and relative ease of administration. While some research has reported encouraging results, with EMDR producing greater symptom improvement than control conditions, those studies have been criticized on methodological grounds (McNally, 1999). Other studies with veteran populations have found less positive results (e.g., Devilly, Spence, & Rapee, 1998; Jensen, 1994), and there is an emerging body of evidence to suggest that the eye movements add nothing to the efficacy of EMDR (P. R. Davidson & Parker, 2001). With our current state of knowledge, it is hard to be definitive about the benefits of EMDR with veteran populations, but it clearly warrants further investigation.

Posttraumatic Nightmares

Clinical experience suggests that, although nightmares often resolve following treatment as outlined above, a significant group of veterans with PTSD are left with nightmares as a residual symptom following completion of, for example, exposure and cognitive restructuring (Forbes, Creamer, & Biddle, 2001). This has prompted interest in a procedure known as imagery rehearsal therapy (IRT; Krakow, Kellner, Pathak, & Lambert, 1995), in which the veteran consciously alters, or rescripts, the content of the nightmare. The rescripted content promotes mas-
tery or control over the threat contained in the nightmare. The altered script is then repeatedly rehearsed.

Investigations into the use of IRT in the treatment of posttraumatic nightmares in civilian populations have been promising (Krakow et al., 2001). More recently, Forbes, Phelps, and McHugh (2001) reported on a pilot study examining the efficacy of IRT on posttraumatic nightmares in male Vietnam veterans with chronic PTSD. That study demonstrated significant reductions in the frequency and intensity of nightmares, with the targeted nightmare having ceased completely at 3-month follow up in 60% of cases. It is important to note that these changes were associated with improvements in overall PTSD severity, mood, and more general symptomatology, with gains maintained 12 months posttreatment (Forbes et al., 2003). The reductions in nightmare frequency and intensity reported in those studies are encouraging, particularly given clinical reports that nightmares in PTSD can be resistant to more established forms of treatment.

Managing Comorbidity

Comorbidity, while common in all chronic PTSD presentations, can present particular problems in the treatment of veteran populations, especially with regard to the high level of substance-use disorders (Kulka et al., 1990). Attempts to determine the optimum sequence for treatment inevitably prompt discussion regarding the function of the substance use: Is it best conceptualized as being secondary to the PTSD (as a way of managing the painful symptoms), is the PTSD secondary to preexisting substance abuse, or are the two comorbid but independent conditions? Although early approaches argued for the importance of treating the substance use first, this runs the risk that the untreated PTSD symptoms will precipitate a relapse. In addition, clinicians often argue that engaging veterans in treatment is so difficult that to treat the substance abuse and then send them away for a period of sobriety before allowing them to commence treatment for PTSD would be to run the risk not only of relapse but also of losing the veteran to treatment for a considerable time. More recent approaches have argued for concurrent treatment models that address both substance use and PTSD symptoms as part of an integrated approach (Najavits, 2003; Ouimette & Brown, 2003). In such models, integrated treatment focuses on education, symptom management, and coping-skills development, with exposure-based interventions introduced only when there has been a cessation of alcohol use or use is stable at low-risk levels for a sustained period.

Group Treatments

There is little to suggest that the traditional “rap groups” that were popular in early counseling approaches for PTSD in Vietnam veterans (Foy et al., 2000) were effective, although it is reasonable to see them as precursors to more contemporary exposure paradigms. Despite this fact and a general lack of research support for group models in PTSD, it remains that government-funded veterans’ affairs mental health services in most countries are likely to offer group treatments for veterans presenting with a diagnosis of PTSD. Although this may be, in part, a function of cost considerations, it stems more from a perception of the potential benefits of joining with others in therapeutic work, particularly when the group (e.g., Vietnam veterans) may feel ostracized and judged by society at large (Foy et al., 2000). Although randomized controlled trials are lacking, several naturalistic studies reported in the literature contribute to our understanding of the potential benefits of these approaches. Evaluations of the early inpatient programs were disappointing, with long-term outcomes showing no symptom improvement, or even deterioration, in the group as a whole (Johnson et al., 1996). This was the case even when a more CBT-oriented approach was adopted with Israeli veterans (Solomon et al., 1992). Slightly more positive findings, however, have been reported from CBT-oriented cohort-based group programs for Vietnam veterans with PTSD in Australia (Creamer et al., 1999). That study found significant improvements in group means, maintained through to 9-month follow-up, although the overall size of treatment response was only moderate and large variations among veterans were evident.

Since group models continue to be adopted, it is important to examine the optimum way of conducting this kind of treatment. The original models within the U.S. VA system relied upon very long (3–6 month) inpatient admissions, with little in the way of systematic outpatient follow-up. Given the discouraging outcome data from those models, it is reasonable to speculate that in-
creased emphasis on outpatient approaches with assertive follow-up in the veteran’s natural environment may be more efficacious. Despite clinical concerns that it would not be possible to adequately contain the affect if veterans were returning home each evening, a comparison of inpatient and day-hospital models offering otherwise identical treatment to Vietnam veterans with PTSD revealed no difference in treatment effects at either 3- or 9-month follow-up (Creamer, Forbes, Biddle, & Elliott, 2002). Also contrary to popular clinical opinion, the outcome data do not support the notion that veterans will do better if treatment takes place in homogeneous groups comprising only veteran participants than in mixed-trauma groups (Johnson et al., 1999). Although participants in a veteran-only group reported higher satisfaction on several indices than those who undertook the same program in a mixed group of veterans and nonveterans, there was no difference in outcome.

The group-program data reported above represent program monitoring rather than randomized controlled trials and, therefore, must be interpreted cautiously. Indeed, a recently published study represents the only randomized controlled trial of group treatment for PTSD in veterans to have appeared in the literature (Schnurr et al., 2003). The study, conducted by the U.S. Department of Veterans’ Affairs, randomly assigned 360 male Vietnam veterans to receive either a “trauma-focused” group psychotherapy or a “present-centered” comparison treatment that avoided any focus on the traumatic experiences. Cohorts of 6 veterans per group received weekly treatment for 30 weeks, followed by 5 monthly booster sessions. Both groups improved significantly from intake to posttreatment, with gains maintained at follow-up. While average improvement was modest, around 40% of participants showed clinically significant change. Contrary to expectations, no overall differences were found between treatment conditions. It is important to note, however, that analyses suggested that those who received an “adequate” dose of trauma focus treatment (attending at least 80% of sessions) did respond slightly better than those in the control condition. While the results are modestly encouraging, the treatment gains were considerably less than those achieved using individual treatment in civilian populations. It appears that, while group interventions for veterans may have many benefits (e.g., in terms of providing support and a sense of belonging), there is little to recommend them at this stage as a treatment of choice for PTSD. Additionally, strategies are clearly needed to reduce drop out (perhaps using motivational interviewing) and to enhance the delivery of psychological treatments for veterans.

Explaining Poor Treatment Outcomes in Veteran Populations

Most treatment-outcome trials with veteran populations, both pharmacological and psychological, have shown less efficacy than treatment trials with nonveterans whose PTSD was related to other traumatic experiences such as sexual assaults, accidents, and natural disasters (Foa et al., 2000a; Shalev, Bonne, & Eth, 1996). If this apparent deficit is to be addressed, it is important to explore possible explanations. While they remain speculative at this stage, they may serve to direct future research designed to tailor treatment more specifically to the needs of military populations.

First, it may be speculated that characteristics of the population contribute to poorer treatment outcomes. As noted above, prior trauma history, prior psychiatric history (Hourani & Yuan, 1999), military training, and the personality style of “typical” military recruits may interfere with engagement and the therapeutic relationship or with other aspects of the treatment process. At the very least, if true, this would suggest that therapy for PTSD with veterans is likely to take longer and be more complex than treatments for some civilian PTSD populations.

Second, while detailed phenomenological data are not yet available to address this question, it is possible that the nature of military deployments may result in a specific form of “treatment resistant PTSD” (Foa, Keane, & Friedman, 2000b). It is reasonable to speculate that the extended duration of deployments—potentially many months of hypervigilance and hyperarousal—may result in persistent changes to fundamental biological mechanisms associated with threat that are difficult to reverse. The deployment takes personnel to unfamiliar surroundings, away from naturally occurring social support networks such as family and friends. It is likely that the environment will be, at best, unpleasant in terms of climate and conditions; indeed, experience of a “malevolent environment” has been shown to be a powerful predictor of subsequent adjustment among Vietnam veterans (King, King, Gudanowski, &
Vreven, 1995). Thus, it may be that characteristics of the traumatic exposure itself serve to make treatment more difficult.

Third, the published literature on treatment outcome among veteran populations focuses almost exclusively on men, while nonveteran trials tend to have predominantly female participants (often sexual assault survivors). There is some evidence to suggest that women may be more responsive to pharmacological and psychological treatment for PTSD than men (Foa et al., 2000a) and, therefore, that the poorer outcomes may be explained more by gender than by veteran status.

Fourth, most veteran PTSD treatment trials have been conducted on Vietnam-era veterans, several decades posttrauma, with high levels of comorbidity. While some of the nonveteran trials include a wide range of participants, the same consistent pattern of chronicity and high comorbidity is rarely seen. Fifth, implementation of best-practice treatments has been less rigorous with veteran than with nonveteran samples. Many of the treatment trials suffer from problems such as inadequate session length and inconsistent application of best-practice principals. There are, as yet, no studies examining the efficacy of CPT (Resick & Schnicke, 1993) with veterans, despite the fact that this intervention would seem to hold considerable promise. Finally, compensation, pensions, and other entitlements may have the potential for greater impact on treatment outcome among military than civilian populations (Frueh, Hammer, Cahill, Gold, & Hamlin, 2000). At this stage, given the meager amount of adequately controlled research with veteran populations, the reasons for poorer treatment outcome must remain largely speculative.

Conclusions

Veteran and military populations constitute a high-risk group for development of posttraumatic mental health problems in general and PTSD in particular. While the treatment of chronic PTSD in veteran populations has come a long way in the last 10 years, there is still much to learn. Despite the human and financial costs to defense forces and governments around the world, surprisingly little attention has been paid to the systematic application of evidence-based interventions for this population. With our current state of knowledge, expectations of treatment outcome must remain modest, with some veterans responding well to treatment, others reporting benefits but continuing to experience symptoms and functional impairment, and some apparently gaining little, or even deteriorating, following existing treatment approaches. A major challenge for the field is that of identifying potential nonresponders prior to treatment and designing alternative strategies for that group. While advances in the treatment of PTSD with military populations over recent years have been modest, it is to be hoped that the next decade will see a more systematic approach to clinical research that will lead to improvements in outcome for this deserving population.

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