CME

Post-traumatic stress disorder in veterans: Treatments and risk factors for nonadherence

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ABSTRACT

Post-traumatic stress disorder (PTSD) affects about 20% of US military veterans and is a major cause of mortality in these men and women. The incidence of PTSD has persisted over the last decade with the Iraq and Afghanistan wars, yet treatment and adherence remain inadequate in part due to clinician lack of knowledge about cognitive processing therapy and prolonged exposure, the proven gold standards in treatment. This article reviews the most current and successful PTSD treatment options and identifies risk factors for patient nonadherence in hopes of reducing the rate of veteran suicide related to PTSD.

Keywords: post-traumatic stress disorder, veterans, cognitive processing therapy, prolonged exposure, suicide, adherence

Learning objectives

- Define PTSD and the reasons for its relatively high prevalence in US combat veterans.
- List the therapeutic approaches available for PTSD and their relative effectiveness.

BRAIN LIGHT / ALAMY STOCK PHOTO

Distressing memories or thoughts are normal after a traumatic event but typically resolve given time. When these feelings persist longer than a month, the patient may have post-traumatic stress disorder (PTSD).[1] This disorder affects about 7% of the general population; among veterans of Operation Iraqi Freedom and Operation Enduring Freedom (Afghanistan), the figure ranges from 11% to 20%.[1-3] The recent suicide rate in veterans is estimated as high as 8,000 suicides per year.[2] A number of

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Key points

- PTSD affects about 20% of US military veterans and is a major cause of mortality in these men and women.
- CPT and prolonged exposure are the gold standards of treatment for veterans with PTSD, with success rates as high as 80%.
- Nearly half of veterans diagnosed with PTSD or depression have not obtained mental health assistance and fewer than half have acquired sufficient treatment.

factors, including a heavy reliance on reservists, is behind the high rates of PTSD in veterans of these operations.

Treatment for PTSD and veteran adherence to treatment remains inadequate in part because of clinician lack of knowledge about cognitive processing therapy (CPT) and prolonged exposure, the proven gold standards in treatment.[1,4-6] This article describes PTSD treatments and factors that put veterans at risk for poor adherence to therapy.

UNDERSTANDING PTSD

PTSD is characterized by a trauma, intrusive symptoms such as flashbacks or night terrors, avoidance of the stimulus, negative alterations in cognition and mood, and alterations in arousal and reactivity.[7] Patients who have had a previous traumatic experience that did not trigger PTSD are at increased risk for PTSD in the future. Other risk factors for PTSD include childhood abuse, death of a family member during the patient's childhood, sexual assault, single parent home, domestic violence, female sex, and low socioeconomic status.[7] Risk factors specific to military personnel include nonofficer rank, Army branch of service, two or more deployments, having discharged a weapon, and exposure to combatants.[8]

A LEGACY OF WAR

Because of a combination of circumstances, the rates of PTSD are significantly increased in veterans of the US wars in Iraq and Afghanistan. Nearly one-third of the troops deployed as a part of Operation Iraqi Freedom and Operation Enduring Freedom were from the National Guard and military reserves, "representing the heaviest reliance on the reserve component for combat operations in recent years."[2] These soldiers were not as thoroughly prepared and trained as active duty service members. Compared with troops in previous wars, reserve troops in Iraq and Afghanistan also had longer deployments (sometimes more than 12 months) and less frequent rest periods.[2] The severe stress of the combat environment included roadside bombs, improvised explosive devices (IEDs), suicide bombers, handling human remains, and human violence and death, which collectively raised troops' risk for PTSD and major depressive disorder.[2]

Although nonphysical forms of trauma such as witnessing a death or facing the risk of serious injury qualify for the diagnosis of PTSD, deployment-related traumatic brain injury (TBI) such as from roadside bombs has emerged as significant predictor for PTSD development in veterans.[7,9] Recurrent TBIs have been associated with chronic traumatic encephalopathy, which may have contributed to PTSD and suicidality in a military veteran who died by suicide.[10]

EVIDENCE-SUPPORTED TREATMENTS

Numerous studies have been performed over the last decade to assess the efficacy of treatment options for PTSD in veterans. Pharmacologic agents such as selective serotonin reuptake inhibitors (SSRIs) or serotonin-norepinephrine reuptake inhibitors (SNRIs) as well as psychotherapy such as psychoeducation or supportive counseling have been used together as the standard in treatment for several of years for these patients, with emphasis on trauma-focused psychotherapy making up the key component of treatment success.[11-13]

As emerging nonpharmacologic therapeutic options, CPT, prolonged exposure, eye movement desensitization and reprocessing, brief eclectic psychotherapy, and narrative exposure therapy all show therapeutic benefit in patients with PTSD.[14] With the strongest support and evidence, CPT and prolonged exposure have become the gold standards of treatment for veterans with PTSD, with success rates as high as 80%.[4,15]

CPT "addresses key post-traumatic themes, including safety, trust, power and control, self-esteem and intimacy," and because of this role, CPT can include therapy that is directed at more sensitive topics.[15] CPT targets the cognitive distortions involving overgeneralization and overly constricted thoughts associated with PTSD. An example of these distortions may involve patient belief of the world as a dangerous place or that the patient is to blame for his or her mental illness.[4]

Researchers measured intent-to-treat analyses and found markedly better improvement for the participants receiving CPT over what the researchers referred to as *treatment as usual*, such as psychoeducation or supportive counseling.[15,16]

Prolonged exposure is described as a sort of relived experience of the traumatic event, which involves patients facing the trauma by invoking the senses and emotions related to the particular event and then working their way through them constructively.[4]

Administered by a trained provider, typically a psychiatrist or psychologist, CPT and prolonged exposure involve patients creating a narrative of their lived-in trauma as an assignment to be done outside of therapy and to be reexamined between therapy sessions.[4] CPT and prolonged exposure were designed to be short-term treatments consisting of 8 to 12 weeks of therapy, with an adequate dose equating to seven or more sessions.[1,4] However, the

compliance rate in veterans with PTSD remains as low as 10% and the suicide rate remains high.[2,4,17]

Several studies noted that a major downfall with pharmacologic treatment is that only 20% of patients are able to reach full remission even with a nearly 60% total response rate.[11-13] A novel recent pharmaceutical approach with more short-term promise has been to use a single subanesthetic dose of IV ketamine in patients with PTSD, with a reduction in PTSD symptoms at 24 hours and 2 weeks following the infusion.[18]

The US military healthcare system has also implemented complementary and alternative medicine approaches to treating PTSD—such as acupuncture, biofeedback, hypnosis, mindfulness, and yoga—although the evidence for efficacy is lacking.[19]

ADHERING TO THERAPY

A study assessing the rate of PTSD treatment dropout of veterans overall found that risk factors for patient nonadherence to treatment included non-Hispanic ethnicity, ages 20 to 30 years, and being a veteran of the US wars with Iraq or Afghanistan.[4] The study also found that veterans' reasons for dropping out of treatment included not being comfortable with their provider, believing they could fix the problem themselves, feeling that 4 or 5 sessions are sufficient, and/or not finding the treatment effective in a timely manner.[4,20-24]

A study assessing veteran dropout from prolonged exposure therapy in an outpatient clinic found that "6% said they improved after assessment and did not need treatment, 11% became actively suicidal or engaged in dissociative behavior, 12% were in other active treatment, 27% reported logistical and life problems, 17% refused to engage in imaginal exposure, and 26% gave no reason."[4,6] The research is also consistent in that patients with more severe forms of PTSD are less likely to adhere to treatment.[4]

Clinicians must aim to ensure that patients not only begin CPT or prolonged exposure but that they receive an adequate duration of the therapeutic intervention. In the largest PTSD study to date, researchers found that only 2% of participants received an adequate dose of either CPT or prolonged exposure, and that most patients did not complete more than five sessions, which would not likely result in physiologic benefit.[5,16] Another study found that of about 50,000 Iraq and Afghanistan war veterans with newly diagnosed PTSD, only about one-third received treatment from a Veterans Affairs (VA) PTSD clinic, and fewer than 10% attended nine or more sessions (the recommended level of treatment) in the first year after diagnosis.[17] Studies show that most veterans of the US wars in Iraq and Afghanistan had an initial visit to the VA upon returning home. Once diagnosed with PTSD or another mental illness, these patients ideally follow up with their services at the VA. However, one study found that the median number of visits in the first year was four, and another study found that 22% of veterans had just one visit.[17,23,25] Despite the available resources for the veterans, nearly half of those diagnosed with PTSD or depression have not obtained mental health assistance and fewer than half have acquired sufficient treatment such as psychotherapy, specifically CPT or prolonged exposure.[2]

These studies suggest that trouble with adherence begins even before the patient has had the opportunity to meet with a potential psychologist or psychiatrist who can introduce him or her to evidence-based treatments such as CPT or prolonged exposure.

CLINICIAN TRAINING

Another study found that respondents considered lack of training as the most common barrier to using CPT and prolonged exposure.[4,26] Clinicians in this study expressed a lack of confidence in some of these evidence-based treatments because of patient concerns about the success and/or difficulty of a given treatment.[4,14]

Several studies found that in residential treatment programs, about two-thirds of clinicians had received training in CPT and fewer than half received training in prolonged exposure.[5,16,20] Few clinicians had completed case consultation in each type of therapy, or had made these therapies the core of their program.[5,16,20] Several studies showed that clinicians modified the elements of CPT and prolonged exposure by changing the modules, assignments, and resorting to supportive therapy because of problems administering the treatment.[5,16,20] Clinicians have expressed concern over the difficulty in providing CPT because of the number of structured sessions and the amount of work patients are asked to do outside sessions.[20] Despite these findings, surveys of clinicians suggest that they are appropriately using CPT and prolonged exposure, although much of the research shows the contrary.[4] This suggests that clinicians are being inadequately or incompletely trained, leading to suboptimal therapies.

IMPLEMENTING BETTER CARE

PTSD causes significant morbidity and mortality and is associated with many barriers to receiving care, including access to care, stigma, and clinician training.[17,27] When adequately treated, this population's quality of life increases.

Overall, adoption of CPT and prolonged exposure and dropout rates remain significant issues in the treatment of PTSD. A number of solutions have been suggested to engage patients, establish a therapeutic relationship, and aid in adherence:

- Encourage veterans to help choose the treatment they consider to best fit their needs. This may increase rates of treatment adherence.[4,25]
- Identify patients with risk factors for treatment nonadherence and take measures to optimize their care and address concerns.
- Educate patients up front about the ideal duration of CPT or prolonged exposure and explain their success.

• Commit to establishing rapport with the patient before treatment while understanding the patient's needs and remaining consistent with the components of each therapy.

CONCLUSION

Screening and diagnosing PTSD have become much more effective, and treatment options have expanded and show great success in treating many of the symptoms of PTSD. Reassure patients that treatment can be effective with the proper plan in place.[21]

More clinicians are needed who are suitably trained and qualified to deliver evidence-based therapy for PTSD.[28] Nearly 30% of physician assistants (PAs) have a military background and nearly 2,000 PAs are employed in 153 VA medical centers.[29]

Clinicians who understand the risk, relapse, and adherence of these patients can provide CPT and prolonged exposure more effectively, helping veterans successfully reintegrate into civilian life. **JAAPA**

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