Biopsychosocial challenges in primary care for the combat PTSD patient from a social work and psychiatry perspective

Tara Bulin, LMSW,a Lisa Zawalski, PMHNPb

From the aMilitary Wellness Program and Department of Social Work, Holliswood Hospital, Jamaica, NY; and bBlue Hill Psychiatric Services, Blue Hill, ME.

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Primary care providers are often the first encounter a patient has with medical care and are increasingly being expected by current health care models to extend their case care management role to the Centers for Medicare and Medicaid Services’ “Advanced Primary Care model, also known as the patient-centered medical home.” This article will focus strongly on the psychodynamics of posttraumatic stress disorder to help primary care providers begin to better define, understand, and evaluate the complex psychological, social, medical, and neurochemical sequelae of posttraumatic stress disorder in combat veterans, and to identify and select biopsychosocial resources for an appropriate needs-based evaluation and treatment disposition for combat veterans.

Posttraumatic stress disorder (PTSD) is a complex phenomenon that is the result of an individual encountering a situation that elicits mortal fear in that individual at the perception level of the individual and not a result of the objective observation of an external person. This can be a direct threat or witness by proxy. As defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), it is a compilation of multiple physical manifestations of severe anxiety, with the hallmark defining symptoms being disrupted sleep and nightmares. Other manifestations include the development of irritability and anger as secondary strategic emotions to manage severe anxiety. PTSD and posttraumatic anxiety disorder (currently best embodied in the diagnosis of Anxiety Disorder NOS in the current DSM-IV1 and reflected by the 17-item PTSD checklist used by the Department of Veterans Affairs2) are often misdiagnosed for the symptoms of the whole, such as depressive disorder, social anxiety disorder, panic disorder, attention deficit–hyperactivity disorder or cognitive disorder, sleep disorder, nightmare disorder, or an independent substance abuse disorder.3 As with most psychiatric diagnostic criteria, there is also a functional criterion to the definition of PTSD along with the contextual application of diagnostic criteria. In fact, most patients who present with residual psychophysiological manifestations of trauma do not meet the full diagnostic criterion of the severity of PTSD and often manage to maintain functional employment and personal lives. Nonetheless, individuals with posttrauma symptomology—particularly combat veterans who have been exposed to the unique trauma of the battlefield—have significant emotional pain that affects their physical, psychological, and social health; and well-being. Primary care providers are often the first to encounter a patient with medical care, and therefore on the front line of treating PTSD. Primary care providers are increasingly being asked by current healthcare models to extend their case care management role to the Centers for Medicare and Medicaid Services (CMS) “Advanced Primary Care model (APC), also known as the patient-centered medical home.”

Corresponding author: Lisa Zawalski, PMNHP, Blue Hill Psychiatric Services, PO Box 809, Blue Hill, ME 04614.
E-mail address: lzawalski@aol.com.

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DSM-IV-TR criteria for PTSD

In 2000, the American Psychiatric Association revised the PTSD diagnostic criteria in the DSM-IV-TR.5 The diagnostic criteria (A-F) are specified in Table 1.

Diagnostic criteria for PTSD include a history of exposure to a traumatic event that meets two criteria and symptoms from each of three symptom clusters: intrusive recollections, avoid/numbing symptoms, and hyperarousal symptoms. A fifth criterion concerns duration of symptoms, and the sixth assesses functioning.

Defining the population

This article focuses on the combat veteran but it is prudent to note that when presented with a military veteran, posttraumatic symptoms or full disorder should not be discounted solely because an individual was not exposed to a known battle situation, or because their Military Operations Specialty (MOS) was non–combat oriented. The unique stressors in a system at war, managed by individuals whose rank is often indicative of suffering the multiple redeployment repetitive traumas of war, have presented multiple examples of posttraumatic anxiety disorder in both seasoned and unseasoned soldiers, male and female, old and young; from pre-military service, deployed and nondeployed, combat MOS and noncombat MOS; and they should not be overlooked. In fact, many MOSs one would not consider to be involved combat are often used for front line combat activity rotations. Some of these include soldiers trained primarily for security detail or even the food service. Battlefield exposure and combat is not exclusive to Infantry, Calvary Scouts, and bomb disposal personnel; and the battlefield can be both inside and outside a secured post of operation.

Individuals who have served in both Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) have been exposed to high levels of trauma.6 Further, given the extended duration of the current war, many of these individuals have experienced multiple exposures to an array of different types of trauma because of multiple deployments. This exposure to such prolonged trauma is related to an increase in psychological disturbances such as and including PTSD, anxiety disorders, and depression.7 In addition to an increase in mental health concerns, individuals who have served in OIF/OEF also have difficulty with psychosocial functioning8 such as marital concerns, interpersonal difficulties, and an increase in risk-taking behavior (e.g., alcohol/substance use).9 Both mental health concerns and difficulty with psychosocial functioning are related to an increased risk of suicide.7,9,10

Psychodynamic theoretical aids to diagnosis: Understanding and predicting behavior and risks

Given the above concerns, this population is in significant need of intensive treatment. However, many OEF/OIF veter
<table>
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<th>Table 1</th>
<th>DSM-IV criteria (A-F)</th>
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<tr>
<td><strong>Criterion A: Stressor</strong></td>
<td>The person has been exposed to a traumatic event in which both of the following have been present: The person has experienced, witnessed, or been confronted with an event or events that involve actual or threatened death or serious injury, or a threat to the physical integrity of oneself or others. The person’s response involved intense fear, helplessness, or horror. Note: In children, it may be expressed instead by disorganized or agitated behavior.</td>
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<tr>
<td><strong>Criterion B: Intrusive recollection</strong></td>
<td>The traumatic event is persistently re-experienced in at least one of the following ways: Recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. Note: In young children, repetitive play may occur in which themes or aspects of the trauma are expressed. Recurrent distressing dreams of the event. Note: In children, there may be frightening dreams without recognizable content. Acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur upon awakening or when intoxicated). Note: In children, trauma-specific reenactment may occur. Intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event. Physiologic reactivity upon exposure to internal or external cues that symbolize or resembles an aspect of the traumatic event.</td>
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<tr>
<td><strong>Criterion C: Avoidant/numbing</strong></td>
<td>Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by at least three of the following: Efforts to avoid thoughts, feelings, or conversations associated with the trauma. Efforts to avoid activities, places, or people that arouse recollections of the trauma. Inability to recall an important aspect of the trauma. Markedly diminished interest or participation in significant activities. Feeling of detachment or estrangement from others. Restricted range of affect (e.g., unable to have loving feelings). Sense of foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span).</td>
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<tr>
<td><strong>Criterion D: Hyperarousal</strong></td>
<td>Persistent symptoms of increasing arousal (not present before the trauma), indicated by at least two of the following: Difficulty falling or staying asleep Irritability or outbursts of anger Difficulty concentrating Hypervigilance Exaggerated startle response</td>
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<tr>
<td><strong>Criterion E: Duration</strong></td>
<td>Duration of the disturbance (symptoms in B, C, and D) is more than one month.</td>
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<td><strong>Criterion F: Functional significance</strong></td>
<td>The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning. Specify if: Acute: If duration of symptoms is less than three months Chronic: If duration of symptoms is three months or more Specify if: With or without delay onset: Onset of symptoms at least six months after the stressor</td>
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lism), but the toll of withdrawing from emotional connection with others ultimately puts so much stress on the person from tortured relationships that the ego’s attempt to protect itself from emotional pain backfires and results in cycles of further decompensation.

Persons exposed to overwhelming trauma or those with PTSD show a “biphasic” trauma response, vacillating between emotional and behavioral “highs” (e.g., hypervigilance, agitation, obsessive thinking) and lows (extreme disassociative states, lethargy, depression) and have difficulties with emotional regulation. Teaching individuals this concept (the relationship between emotional dysregulation and substance misuse), and teaching them more adaptive ways to regulate their emotional and physiological arousal, is a key aspect of treatment.

Integrative inpatient treatment of PTSD, anxiety, depression, and substance misuse disorders requires an intimate understanding of the difference between developmental trauma and what we think of as acute (or adult-onset) trauma, as well as the relationship between the two. Van der Kolk defines developmental trauma as a chronic exposure to trauma, typically experienced during childhood (e.g., childhood physical and/or sexual abuse), and of an interpersonal nature that impedes the development of the child’s ego in such a way that leaves them at increased risk for subsequent trauma (and difficulties managing that trauma) over the life span.

Furthermore, exposure to trauma of this nature almost always leads to impairments in the following domains of functioning: biological, cognitive, attachment, affect regulation, self-concept, dissociation, and behavioral control.

What we have come to know as PTSD, as defined in the DSM-IV-TR, recognizes that a single event (e.g., a car accident) or even sometimes multiple events experienced as an adult may affect the psyche in a negative way. However, although exposure to an acute traumatic event may negatively affect the emotional and behavioral functioning of an individual, it does not necessarily alter the developmental trajectory of an individual or present its sequelae in as pervasive or diffuse a manner as is seen with developmental trauma. For example, the three main criteria for PTSD (re-experiencing, avoidance and numbing, hyperarousal) are much more focal and directly tied in both content and experience to the actual traumatic event when compared with the sequelae of developmental, interpersonal trauma experienced during childhood and adolescence.

When working with individuals who have been exposed to trauma, it is important to inquire not only about combat or deployment-related trauma, but also about a history of developmental trauma. Only after one gains a comprehensive overview of the individual’s lived experience can the treatment provider proceed with the appropriate course of treatment.

A major part of integrative treatments aimed at decreasing the frequency and severity of triggers related to the traumatic exposure(s) and also aimed at decreasing their vulnerability for substance misuse is to facilitate the processing of traumatic memories. For instance, exposure-type cognitive processing therapies, including prolonged exposure therapy (PE); cognitive reprocessing therapy (CPT), which also can be performed in a group setting; and eye movement desensitization and reprocessing (EMDR), facilitate the movement of the traumatic memory from episodic memory (overstimulating) to semantic memory (neutral) through the use of trauma recall, cognitive processing of emotional states, and bilateral stimulation. This movement of the traumatic memory into semantic memory enables the decrease in the intensity of the memory for the individual, as well as a systematic reduction of trauma triggering emotional and physiological reactivity. This decrease in reactivity and subsequent stabilization of one’s level of emotional arousal also assists in the reduction of substance misuse by the elimination of the triggers that led to the maintenance of the cravings.

In addition, true integrative treatment involves the creative and evidence-based amalgamation of multiple treatment modalities during the inpatient treatment experience, including alternative, nonverbal therapies such as expressive art therapy, which uses deliberate art assignments to assist in the expression of underlying psychological concerns.

Many traditional inpatient treatment programs are working to meet the challenge of providing effective treatment for combat PTSD by promoting the coalescence of exposure-based therapies (i.e., EMDR) with creative arts therapies and ensuring the coordinated application of multiple treatment paradigms across disciplines and clinicians to “layer” and phase treatment across both verbal and nonverbal modalities, all coordinated by an integrated treatment team that promotes peer support and peer engagement to lead to a higher level of treatment success, as well as a dissolution of the stigma and resistance typically associated with being in an inpatient treatment facility. This is key to approaching the individual treatment needs and preferences of each service member who seeks care. Another key aspect of treatment support is coordinating services with health care payers and not-for-profit groups to obtain durations for the needed course of inpatient treatment that is often nonexistent in the managed care system, as well as transportation to and from the facility for both patient and family for further economic relief as well as for an opportunity to therapeutically serve to reintegrate the family.

Assessment of the combat veteran in primary care psychosocial assessment

Many combat veterans will present to their primary care providers and/or outpatient psychiatry and behavioral health providers, whether Veterans Affairs (VA) or civilian. As with most disorders or disease, acuity and patient engagement dictates the appropriate level of care that is given.
Within the myriad of complexity of diagnoses and treatment, some basic themes emerge that can serve as indispensable tools for the first responding or the care-coordinating primary care provider.

**The initial safety assessment**

Uniquely, the combat veteran has been trained to kill as well as to survive, and part of training for survival is to aid fellow soldiers’ survival. This can lead to survivor guilt for a buddy that could not be saved, as well as hypervigilence in civilian life because of the lack of similarly trained battle buddies to count on for safety. As well, the primary security for a soldier is a weapon. Weapons include guns, knives, as well as strength and training in hand-to-hand combat. Because the first goal of any medical practice is safety, it is important to discern whether the patient has immediate access to these weapons at times of severe psychological stress when judgment may be impaired (this is also true for substance or medication abuse). Is there a gun or knife under the bed that can be grabbed when the veteran is disoriented from a nightmare? Is unknowingly hitting or strangling a partner during sleep the result of combat nightmare? Is the veteran stopping to confront and threaten other drivers when irritability with others triggers anger from feeling the anxiety of being trapped with no escape from harm or from being unwillingly put into a dangerous and harmful situation? It is also important to understand that a person who has experienced psychological trauma often goes to great lengths to avoid reminders of the trauma that could result in extreme anxiety. A health care provider who may resemble the ethnicity of the enemy that the veteran encountered could present as a threat to the veteran, resulting in anxiety and anger, and possibly combativeness. Because the core of the anxiety is a feeling of being trapped with no escape from danger (per the DSM-IV-TR), it is best to allow the patient to withdraw from the treatment session at will without restraint if they so choose because the fear is irrational. That fear often does not respond to rational discussion, and in fact discussion often escalates the person’s anxiety and anger. PTSD is not so much the memory of a traumatic event, but the residual unprocessed emotions from oft-repeated trauma.13

It is notable that the course of adjustment to psychological stress of combat deployment is within a few weeks to months of returning from deployment.20 The normal psychological processing back to a state of health can be hindered by subsequent traumas as discussed before, such as deaths in the family, family and marital problems, and redeployments, before the initial trauma is sufficiently resolved. Veterans who continue to have significant symptoms by the time they are out of the military and then present to civilian providers should be considered for psychiatric referral for medication evaluation and management as well as trauma-based psychotherapy, preferably with professionals experienced in treating combat trauma, because a significant amount of time has elapsed in which the trauma has not been sufficiently processed from the time the trauma was experienced to the time the veteran has left the military and presented to a primary care provider.

As we touched on before, the psychological and social sequelae from postcombat trauma can be extensive, and patients are often resistant to the overwhelming commitment of treatment for fear of reliving their trauma. These issues are often complicated by difficulties in accessing treatment.

Medical evaluation and treatment is intertwined with issues unique to veterans. Within the military and VA systems, a diagnosis of PTSD can be an incentive to some to malinger symptoms, because of the generous disability benefits.21 Because these evaluations are performed internally and extensively, it is unlikely that a patient presenting to a civilian provider will present with malingering unless they are currently under evaluation for benefits and feel the need to present a consistent front.

**Medical assessment**

Medical and mental health treatment within the military is by its nature often fragmented, because of both soldiers and military medical personnel deploying, changing post assignments, and leaving the military at different time intervals. There is also a cultural belief within the military that one will be seen as weak if they seek care. This sets the population up for unaddressed medical and mental health issues, which may be first documented when presenting to a civilian primary care provider, be it their own or even their wife’s OB/GYN or their child’s pediatrician. The veteran may be overwhelmed with the transition to the civilian health care model from the military health care model, which is free, often on demand, often inclusive of case management coordination with their employer, and in which appointments are considered part of their paid duty day.

As expected, orthopedic concerns are by far the most common injuries found in soldiers from the toll of daily physical training and heavy work, often weighted in hundreds of pounds of battle gear. It is not uncommon to see stress injuries in young adults that one would not expect to see for decades. However, more systemic diseases such as elevated cholesterol and triglycerides, hypertension, diabetes, and systemic diseases of which we are increasingly uncovering a significant contributory role of stress in their trajectories, are also being seen in the veteran population. Orthopedic injuries are often complicated with pain management issues that become more complex in the veteran who may misuse medication or whose anxiety is so great that his pain cannot be relieved adequately with medication alone; and there may be some dysregulation of the opioid system, leading to opiate abuse.
Psychiatric assessment

It is important to make a full assessment of existing and preexisting disease because psychological stress can often lead to and worsen many medical conditions. In turn, these conditions may be significantly stabilized with effective psychiatric symptom reduction. Many medical conditions or reports of symptoms may also be intertwined with posttraumatic stress. For instance, there is a significant amount of sleep apnea in all ages of military personnel. Among those treated, those with concomitant PTSD often do not have full relief of their insomnia and require hypnotics. However, a thorough sleep assessment should be performed; there may be confounding factors such as feeling compelled to play the video game “Call of Duty” or watching news or movies of war before experiencing disturbed sleep, or that sleep may be good in the daytime or when with a partner because of a sense of safety, but disturbed when this sense of safety is absent. Some veterans may be afraid to fall asleep for fear of having a nightmare. Sleep hygiene interventions, or treatment of anxiety or nightmares, with nonaddictive medications, may give the patient more relief and restorative sleep than that offered by a hypnotic.

Brain injury is also a complex issue for the combat veteran who may have experienced one episode or repeated episodes of being involved in bomb blasts. Many may present with chronic headaches or seizures traceable to blast injuries and/or paradoxical reactions to medications. Headache pain if relieved, often responding to psychiatric medications, can help the patient who has PTSD be better able to resolve the memory of their traumatic experience. Although attentional deficits may be related to brain injury, the attentional deficits related to the distraction of depression and anxiety in PTSD may be more explanatory once they are thoroughly evaluated.

Neurochemistry of PTSD

Understanding the neurochemistry and neurobiology of PTSD, and how it is reflected in the symptoms and reports presenting in the medical office, can help guide treatment for symptom reduction and for resiliency if the patient is exposed to subsequent traumatization. Research regarding these mechanisms continues to evolve, and there is increasing understanding and detail regarding the structure and function of the brain in patients with PTSD and the Department of Veterans Affairs National Center for PTSD has become a clearinghouse of informational links. However, for the purposes of this article, we will reference a general agreement that the amygdala is overactivated in patients with PTSD, creating a cascade of stimulus response to the hippocampus, frontal cortex, locus coeruleus, thalamus and hypothalamus, and dorsal and ventral striatum. Thus, the outward symptoms seen in PTSD—memory processing of emotional events, learning, and behavioral responses—are compromised.

Many of the studied mechanisms of PTSD—means of modulating the overactivation of the amygdala and its effects on the cortex—have no current, practical drug therapies. However, a brief understanding of some of the most studied mechanisms for which drug therapy is available and effective may aid the primary care provider in selecting a treatment to begin or understanding the medication regimen prescribed by psychiatric providers who are also caring for their patients.

The primary systems for intervention in treatment of PTSD symptoms are adrenergic, glucocorticoids, glutamate, GABA, dopaminergic, and serotonin. In the adrenergic system, targeting excessive alpha-1 and beta-receptor activation and inhibiting alpha-2-andrenergic receptors may reduce overactivation of the amygdala and its subsequent influence of other structures and functions. Glutamate antagonists, such as anticonvulsants, may protect the glucocorticoid system from potentially neurotoxic stress-induced HPA (hypothalamic-pituitary-adrenal) activation. However, there is growing evidence that the brain’s primary excitatory and inhibitory neurotransmitters that work directly on the amygdala, glutamate, and GABA, when modulated by GABAergic anticonvulsant mood stabilizers, may play a more primary role in helping to relieve the overstimulation of the amygdala in acute PTSD patients. As well, dopamine antagonists may help relieve the symptoms of the dopamine release that results from acute overstimulation of the amygdala. Because the serotonergic system interacts with all of these systems, patients may respond to antidepressant therapy when their symptoms have not progressed enough to require more direct pharmacological intervention. It is notable that, not unlike most major psychiatric disorders, chronicity leads to progressive treatment resistance, thus exposing the patient to the hierarchy, and often polypharmacy, of medication treatment over the course of the disorder or the course of a lifetime. According to Stein et al., about 40% of patients with PTSD do not meet typical response criteria to antidepressants and therefore are not symptom-free with monotherapy.

Psychiatric medication treatment of PTSD is complex in any population, but particularly in combat PTSD and particularly if there is a premorbid psychiatric history. Although it is recommended to refer out, there may be a waiting time to see a psychiatric medication provider. The goal of treatment should be symptom relief. The level of distress and compromised functioning will guide medication choice. In addition to an antidepressant to treat anxiety and depressive symptoms, it is not unusual for an antipsychotic or mood stabilizer to be needed for severe anxiety and irritability and for somnolence, but they should also be prescribed with care for the substance abusing or suicidal patient. Should the primary care provider be comfortable providing full and continuing psychiatric treatment, a balance must be struck between symptom relief with medications and the patient’s often desire to want overmedicating to numb their intolerable feelings, which ultimately hinders psychotherapeutic resolution of the posttraumatic anxiety.
As Van der Kolk states, traumatized individuals need to learn that it is safe to have feelings and sensations. As with most psychiatric conditions, medications that are short-acting or that give some form of instant gratification are contraindicated for long-term therapeutic treatment of disease, because they interfere with motivation to work therapeutically toward wellness by reinforcing and creating dependency on an external locus of control, much like the trauma itself, and ultimately undermine recovery, though there is often a use for them in short-term acute situations while waiting for the titration of the core medication treatment.

Conclusion

Although they are complex and often chronic and severe, posttraumatic stress anxiety and PTSD are very hopeful diagnoses. There is a required concerted effort in understanding and committing to treatment of both the collaborating providers and the patient in psychotherapy. They are resolvable conditions and do not need to be permanent disabilities that affect and decline the biopsychosocial system of the individual patient with a history of exposure to psychological trauma.

Appendix

Below is a partial list of resources that may assist both providers and patients. However, it should be noted that government and private programs are continuing to emerge to assist veterans, and as such, credible government military-associated websites along with general internet searches are expected to continue to disclose additional resources.


Hospitals specializing in treating combat PTSD

- The Holliswood Hospital http://www.militarywellnessprogram.com http://www.holliswoodhospital.com/

Registries of trauma therapists

- Eye Movement Desensitization and Reprocessing International Association
- Humanitarian Assistance Program
- National Association of Social Workers

References


