



Survivors of Combat Trauma

4

Savannah L. Woodward and David Nissan

*When I'm asleep, dreaming and lulled warm,
They come, the homeless ones, the noiseless dead.
While the dim charging breakers of the storm
Bellow and drone and rumble overhead,
Out of the gloom they gather about my bed.
They whisper to my heart; their thoughts are mine.
"Why are you here with all your watches ended?
From Ypres to Frise we sought you in the Line."
In bitter safety I awake, unfriended;
And while the dawn begins with slashing rain
I think of the Battalion in the mud.
"When are you going out to them again?
Are they not still your brothers through our blood?"*
Siegfried Sassoon, 1918

Introduction

It has long been recognized that one's cultural background contributes dramatically to the way that an individual interacts with the world around them and the way the world interacts with them in return. This is certainly true in medicine and particularly so in psychiatry where one's perception and background have a significant impact on diagnosis, conceptualization, treatment, and clinical outcomes. One distinct culture that is often under-recognized is that of military service members. In many societies, at least at the time of this writing, military service and direct

S. L. Woodward · D. Nissan (✉)
Department of Psychiatry, Naval Medical Center San Diego, San Diego, CA, USA
e-mail: david.a.nissan.mil@mail.mil

exposure to combat have become increasingly infrequent, and only a small minority of citizens experiences the brutal reality of war firsthand. Most ancient civilizations had rituals to acknowledge the metamorphosis that occurs with or in preparation for combat. In Maori culture, the Haka, known as a war cry, is performed prior to war. In Jewish culture, laws mandated that those who killed or touched anyone who had killed must remain outside of the camp for 7 days [1]. Many early societies revered survivors of combat, extolling them as the “normals” who possessed a special knowledge unknown to those spared that exposure [2]. As time and technology have progressed, less and less of the population has been directly exposed to traditional combat.

Currently, only about 10% of the adult population in the United States has served in the military, and 80% of new military recruits have at least one family member who previously served [3]. The term “warrior caste” has been used to describe this hereditary phenomenon and to illustrate the smallness of the population with a military history [3]. As combat exposure becomes a rare experience, the divide between those who experienced war and those who have not grows more profound. Clinicians working with this population must recognize this chasm and make an effort to understand the nature of this barrier, within and out of military culture, in order to provide combat veterans with meaningful psychological support and treatment.

When assessing for any mental illness in a culturally informed way, it is important to consider three specific aspects (though it should be noted that not all three of these may be applicable to every culture) [4]:

1. Cultural-specific syndromes, clusters of symptoms (psychiatric and otherwise) common to members with the shared experience
2. Idioms of distress, or how members communicate, or may fail to communicate, his or her emotional suffering
3. Cultural explanations of perceived causes

With these factors in mind, the provider can then create a cultural formulation (see the “Cultural Formulation Interview” in the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, DSM-5*) [5] as a means of conceptualizing the patient and their presentation. This should incorporate the cultural identity of the individual, their cultural conceptualization of distress, psychosocial stressors and cultural features of vulnerability and distress, cultural features of the relationship between the individual and the clinician, and an overall cultural assessment for diagnosis and treatment.

This chapter aims to explore the specific cultural challenges that come with treating survivors of combat trauma. Key cultural characteristics of the military are discussed including stoicism, team orientation, stigma related to seeking mental health care, and an ingrained belief in an external locus of control, among others, and how they relate to the treatment of combat trauma in both active duty service members and veterans. Through a review of relevant background information and a case vignette, unique challenges and specific recommendations for providers working with this patient population are presented.

Background

Military Structure and Organization

To understand military culture, it is helpful to first understand military structure. The US military is divided into both active and reserve components. Said reserve component is comprised of the National Guard and the Reserves (each branch of the military has its own reserve service). The active component, on the other hand, is comprised of the five branches of the military: the US Navy, Marine Corps, Air Force, Army, and Coast Guard. Members of the active component are full-time military personnel who can be deployed (i.e., moved into position for military action) at any time, whereas members of the reserve component are not full-time employees and are typically only called into active duty during times of war or national emergency. During Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF), reserves from all branches were heavily utilized, so it is important to not make assumptions about deployments based on reserve or active status.

All military members are either enlisted or hold officer rank in their respective branch. Enlisted personnel begin their service by going to a branch specific basic training (boot camp), between 7 and 12 weeks in duration. In basic training they are prepared for the military – physically, mentally, and emotionally – and they also learn about the culture and traditions of their respective service. Following basic training, enlisted personnel typically proceed to specialized training tailored to their specific job within a specialty (e.g., aircraft mechanic, infantry, nuclear electrician's mate) for several months or, in some cases, years. Once they complete this additional training, enlisted service members are sent to their first duty station. It should be noted that enlisted personnel typically join at a younger age (i.e., 18 or when they complete high school), though it is not uncommon for individuals to enter service later in life, spending time in other occupations or secondary education. Officers, on the other hand, have various routes to join: attending a service academy (e.g., the Naval Academy in Annapolis, Maryland, West Point), Reserve Officer Training Corps programs (ROTC), or by going to Officer Candidate School which is similar to the enlisted boot camp but with an emphasis on developing leadership skills. There are also several programs that allow enlisted service members to earn a commission and become officers. Depending on their job and specialty (e.g., infantry, surface, aviation), officers will also proceed to additional training before being sent to their first command. There are officer programs that allow senior enlisted to commission as Warrant Officers or Limited Duty Officers in fields that require a high degree of specialization.

The fundamental leadership structure of the military is the chain of command. This concept describes whom each member of the military reports to and takes orders from. An individual junior enlisted member is grouped with other junior personnel into a platoon, shop, division, etc. (the terms vary widely between each branch and even amongst different communities within each branch). Junior enlisted members are typically led by another enlisted service member with a few years of experience (noncommissioned officers, or NCOs, in the Army, Air Force and Marine

Corps; Petty Officers in the Navy and Coast Guard). Above them are Staff NCOs (Army, Air Force, Marines) and Chief Petty Officers (Navy, Coast Guard), who work with a junior officer (0–3 years of service) to run the platoon or division. Several platoons/divisions coalesce into companies/departments, which report to a Commanding Officer, aided by the Executive Officer (second in command), and Senior Enlisted Leader (works as an advisor and liaison between enlisted members and the Commanding Officer). *Although everyone has a supervisor to whom they report, all service members (even junior enlisted) are expected to look out for and support their lower ranking counterparts.*

The chain of command has much more responsibility and authority than would be typical of a civilian employer. In addition to acting as a work supervisor, they are responsible for the “care and feeding” of each of their service members, as well as their general well-being. Service members are encouraged to discuss personal issues with their chain of command (e.g., family illness, financial struggles), and commands have designated personnel to provide preliminary assistance (e.g., financial counseling, drug and alcohol programs advisor). Senior enlisted and junior officers are strongly encouraged to get to know their people, learn about the difficulties they face, and use command/military resources to help them face and overcome obstacles. This increased responsibility is also present in the military’s disciplinary system. In stark contrast to the civilian world, the Commanding Officer is also delegated significant legal authorities, administering “nonjudicial punishment” (e.g., reprimand, reduction in rank, loss of pay, extra duty, and being placed on restriction) for lower violations of the Uniformed Code of Military Justice. The increased role the chain of command plays in a service member’s life is thought to foster the semiconscious or unconscious notion that individuals have less control over events than is actually true. This external locus of control is thought to contribute to some posttraumatic symptoms and is described in more detail below.

The Pillars of Military Culture

[Armies] are institutions that create a world. [They] successfully engender the new member’s respect, loyalty, love, affirmation, gratitude, and obedience.

Jonathan Shay, *Achilles in Vietnam: Combat Trauma and the Undoing of Character* [6]

With some background of military structure and organization in place, one can now begin to understand the three key pillars of military culture:

1. An external locus of control
2. Stoicism
3. Service to others above self

As described in detail above, the military is a highly structured organization. Because of this structure, it is paramount that the chain of command is observed, otherwise – as all service members are taught – the organization ceases to function. This mindset is repeatedly reinforced throughout one’s military career to the point

that it is ingrained in the psyche. It should also be noted that many aspects of a service member's life are controlled by their respective branch. For example, junior enlisted who are not married must live in military housing on base (called "bar-racks") or on board their ship. Furthermore, unlike the civilian sector, if a service member dislikes their job, they have no option to quit and must await the completion of their multi-year contract. Additionally, the maintenance that service members perform on equipment is typically laid out in very specific checklists that must be followed sequentially. While many of their jobs still require a high degree of ingenuity to face complex problems in a dynamic environment, they are trained on reading and following detailed instructions. The military environment fosters the belief that the service member is not in control of the events in their lives. This culture has multiple important benefits such as increasing the reliability of the organization, preventing safety mishaps, and ensuring that service members can react quickly in times of duress to take complex action in service of their nation. When tragedies occur in spite of this training, preparation, and execution, or when a service member perceives they failed to take proper action to prevent the disaster, this sense of an external locus of control can lead to profound feelings of hopelessness or helplessness, traits which are frequently observed in combat veterans receiving trauma-focused treatment. This may also affect their readjustment to post-military life when they must take a more active role in making choices for their future.

Stoicism is a key trait that closely accompanies maintenance of the chain of command, because without either one of these, there is no hope for survival in times of war. Service members are taught to remain stoic in the face of adversity, and great generals and admirals are lauded for their ability to stay calm and collected during times of conflict. Despite recent campaigns to normalize seeking support for mental health conditions, the stigma still remains. Not only is emotionality felt to be detrimental to the mission, but it is also looked down upon, and the ones who show it are considered weak. As such, those who succeed in their military careers are the ones who "suck it up" and avoid succumbing to any emotional pitfalls.

Lastly, there is an increased focus on service and putting other unit members ahead of themselves. This is a culture that strives for cohesion of the unit, which can only be obtained by supporting others and the mission above oneself. If one member of the unit succeeds, the entire unit succeeds. The reverse is true as well, for if one member of the unit fails, the entire unit shoulders the consequences. As a result, service members are expected to support subordinates and their unit as a whole. Additionally, it is within the Commanding Officer's job description to ensure the command's service members' well-being (including housing, food, financial counseling, mandated time for fitness, etc.) at all times. It is because of this sense of duty to others that commands extend beyond a typical office environment and more closely resemble a family.

Combat and Its Effects

The experience of humans in war has been a cornerstone of storytelling for as long as we have been able to communicate. Although combat stress had been

recognized as far back as ancient Greece, it was not until World War I (WWI) that the medical community began to identify the role of combat trauma in causing lasting psychological distress. During this time, physicians caring for soldiers that returned from combat described a number of patients with paralyzed limbs and other bizarre disorders of movement, blindness, hysteria, and mutism with seemingly no physical etiology. It was initially theorized that these symptoms were the direct result of nerve injury caused by exposure to repetitive gunshots and mortar explosions, leading to the concept of “shell shock.” The term “shell shock” was first coined by Charles Myers, a psychiatrist well-known for his work with WWI soldiers in Britain. Dr. Myers described shell shock as mental shock which resulted from being “buried, lifted, or otherwise subjected to the physical effects of a bursting shell or other similar explosive” [7]. Both he and William Rivers, another British psychiatrist, were among the first to recognize that the suffering of these soldiers was genuine, and they advocated for more humane treatment. Though it was Major Arthur Hurst who revolutionized the conceptualization and treatment of shell shock.

Major Hurst, a general practitioner with no formal psychiatric expertise, shot the motion picture *War Neuroses* in 1917 as a means to further characterize the disorder. It was the first film of its kind and featured a number of patients whom he diagnosed with “war neuroses” (Hurst’s preferred term to shell shock) [8, 9]. He characterized the syndrome of war neuroses as being comprised of a number of symptoms (which he identified as being neurologic in origin) to include poor appetite, tremor, paralysis, anxiety/hysteria, depression, dizziness, confusion, insomnia, nightmares, and blindness/deafness. In early 1918, Major Hurst opened a military hospital, Seale Hayne, dedicated to treating soldiers with war neuroses [10]. There, Hurst developed a treatment technique that closely resembles exposure therapy, focused on repeatedly reliving and reviewing the traumas of war until the images lost their power over the patient. Hurst even went so far as to recreate a battlefield for a final exercise he called “The Battle of Seale Hayne,” which was designed to allow patients to relive the trauma of war in a controlled environment. Many former soldiers acted injured (to make the event seem more realistic) and were carried off the field by “medics.” The technique was reportedly wildly successful with Major Hurst declaring, “We are now disappointed if complete recovery does not occur within 24 hours of commencing treatment, even in cases which may have been in other hospitals for over a year [10].”

Despite the increasing understanding that shell shock or war neuroses was a medical condition versus a disorder of constitution, there was little sympathy or understanding for these soldiers among the general public and even less so within the military. Many soldiers who later received diagnoses of shell shock or war neuroses were considered emotionally weak cowards. A large number of these soldiers were charged with desertion or insubordination and punished accordingly, with 306 soldiers in the British Army executed for cowardice in WWI [11, 12]. Consequently, the ideals of strength and heroism remained and were continually reinforced as critical internal and external barriers to seeking psychological care.

Combat Trauma in the Modern Day

Charles Myers, the first individual to use the term shell shock in a medical journal, soon realized the term was a misnomer, as many of the soldiers he treated had not been directly exposed to shelling [7]. While the term remained popular throughout WWI, mental health practitioners in World War II described soldiers with prolonged traumatic reactions as having “combat fatigue” or “battle fatigue.” Military psychiatrists in Vietnam made an infamous claim that the rate of mental health casualties in the war was incredibly low, failing to predict or prepare for the increased recognition of chronic symptoms after traumatic experiences. It was this increased clinical and political focus on returning veterans with psychiatric difficulties that led to the description of “post-Vietnam syndrome.” Researchers and patient advocacy groups recognized that these symptoms were not specific to combat experiences, and the term posttraumatic stress disorder (PTSD) was first included in the DSM-III in 1980.

Prolonged traumatic symptoms after exposure to combat are now represented in the DSM-5 as a number of trauma or stressor-related diagnoses. Current theories conceptualize traumatic stress reactions as existing on a continuum ranging from acute stress disorder (a stress reaction lasting between 3 days and 1 month following the traumatic event) to posttraumatic stress disorder (PTSD). The DSM-5 defines both acute stress disorder and PTSD as syndromes that occur after exposure to a traumatic incident either by way of directly experiencing it or by being repeatedly exposed to it (such as a medical professional caring for multiple patients with gunshot wounds), learning of a traumatic event occurring to someone close to them, or witnessing the traumatic event [5]. Symptoms of this disorder occur in four specific symptom clusters: avoidance (primarily of stimuli reminiscent of the trauma), negative emotions and cognitions, hyperarousal, and intrusive thoughts/memories of the trauma. This can be further delineated by the presence of dissociative symptoms, specifically depersonalization and derealization [5].

It is common for individuals to meet some, but not all, of these criteria, or for symptoms to exist with a range of occupational or interpersonal impairments. This is perhaps especially true of combat veterans in active service. Hypervigilance may be a strength for many military occupation specialties, and individuals who are constantly preparing for war and thinking about enemy threats are likely to perceive the world as inherently dangerous. Symptoms may, therefore, be difficult to recognize by both the clinician and the patient. As such, it is important to consider the individual’s occupation and how it may mask or reinforce some of their symptoms.

Although much of the pathophysiology of PTSD has yet to be fully revealed, research in the area is rapidly expanding. Curiously, some imaging studies have described a number of notable structural differences in patients with PTSD to include decreased hippocampal volume, decreased left amygdala volume, and decreased volume of the anterior cingulate gyrus [13]. These findings are particularly interesting, given the known role of the amygdala and hippocampus in identifying and processing environmental threats. Other studies focusing on the neurochemical effects of PTSD have found evidence of increased norepinephrine

levels centrally with seemingly downregulated adrenergic receptors, as well as upregulation of glucocorticoid receptors, but overall decreased glucocorticoid levels [14, 15]. One proposed mechanism is a chronically activated sympathetic nervous system that, in turn, leads to noradrenergic and glucocorticoid dysregulation, which may result in some of the structural changes described above.

When assessing patients for a trauma-related disorder, it is important to first understand the nature of the traumatic exposure. Particularly in military populations, the traumatic event may be atypical and is often not related to direct combat exposure. For example, consider the case of a 36-year-old enlisted male who presents with trauma-related symptoms. When queried about the trauma resulting in his symptoms, he reports reviewing drone footage of covert attacks for his job in the US Navy to document the details of each mission and maintain a written record of each assault. To assess whether this patient meets criteria for a trauma-related disorder, it would be important to understand if he has been exposed to actual or threatened death, serious injury, or sexual violence per the DSM-5 [5]. To do this, the nature of the films he reviewed must be clarified (e.g., do the videos contain images of individuals being killed vs. a nondescript building being bombed; how many of these videos does he watch; are the individuals in these videos enemy combatants, fellow service members, or innocent bystanders?). It should also be noted that there are a number of factors associated with increased risk of developing PTSD, which should be considered when assessing for trauma-related symptoms, including experiencing direct combat, severity of injury, childhood adversity, and lower military rank (and hence, likely a heightened sense of external locus of control) [16]. Additionally, it is important to determine if the reported symptoms are specifically associated with the traumatic event. As one may imagine, symptoms such as anxiety, depression, and insomnia are quite prevalent in military populations. It is important to distinguish the etiologies of the reported symptomology to ensure that the patient truly has a trauma-related disorder (e.g., insomnia secondary to nightmares about a traumatic event vs. insomnia secondary to obstructive sleep apnea).

Of course, there are a number of comorbidities which providers should be aware of when screening for posttraumatic stress disorder. Perhaps the most notable psychiatric comorbidities, particularly in the veteran population, are substance use disorders. One study reported that among veterans diagnosed with either or both an alcohol use disorder and drug use disorder, 55–75% also met criteria for a PTSD or depression diagnosis, and veterans with PTSD were 3–4.5 times more likely to be diagnosed with a substance use disorder [17]. Additionally, other psychiatric comorbidities such as independent depressive or anxiety disorders, as well as personality disorders (especially borderline personality disorder and antisocial personality disorder) are common among those diagnosed with PTSD. And, as with any psychiatric disorder, trauma-related disorders have a high comorbidity with sexual dysfunction, so a careful sexual history should be obtained to screen for this.

In addition to psychiatric comorbidities, there are also a number of nonpsychiatric medical comorbidities which providers should be aware of when treating this population. For combat veterans specifically, PTSD and traumatic brain injury (TBI) have very high rates of co-occurrence so careful screening for symptoms of a

post-concussive syndrome is important [18–20]. Additionally, a number of studies have demonstrated that patients with PTSD are also at risk for a number of other medical issues including obesity, pain, musculoskeletal disorders, dyslipidemia, hypertension, autoimmune disease, and dementia; therefore a thorough medical examination is necessary for any patient presenting with symptoms consistent with PTSD [21–25]. As a brief aside, because of the hesitation to seek mental health treatment within the military, these patients are often better at expressing and seeking treatment for physical symptoms, as these may be perceived as more acceptable maladies. As such, medical providers treating patients within this population should have a low threshold to screen for psychiatric symptoms.

Defining the Problem

It is estimated that somewhere between 14% and 16% of US service members who have deployed to a combat zone return with trauma-related symptoms, with an estimated 11–20% of Iraq and Afghanistan veterans and nearly 30% of Vietnam veterans meeting DSM-5 criteria for posttraumatic stress disorder [26]. This is in comparison to 6.8% of the general population, as reported by the National Comorbidity Survey Replication [27]. However, as of 2014, only about 8% of the five million veterans receiving care through the VA system had been diagnosed with PTSD. Despite nearly three billion spent on PTSD treatment for veterans in 2012 and demand for mental healthcare in both the VA and Department of Defense (DoD) reaching an all-time high, likely hundreds of thousands of veterans meet criteria for PTSD but are not enrolled in any treatment.

The concept of transgenerational trauma is one which should also be considered when discussing the scope of combat-related posttraumatic stress disorder. Transgenerational trauma (also called intergenerational trauma) is a psychiatric concept which suggests that trauma can be transferred from one generation to the next. Although this phenomenon was originally observed among the children of Holocaust survivors, there has been an increasing body of research to support that children of service members with PTSD are far more likely than their peers to seek mental health treatment. Although there is no clearly defined mechanism, one can safely argue that the traumatized parent is not the only patient of the treating psychiatrist, and the physician should also screen for psychiatric conditions within the family unit.

Factors Impacting Care

It is also essential to briefly discuss the barriers to care both active duty members and veterans face in accessing and receiving mental health services. While active duty, there is significant stigma, not only because mental health care is perceived as a weakness, but also because it requires a service member to leave their unit for a period of time, which may be seen as placing oneself before the unit [28]. Additionally,

some service members believe they are not “sick enough” to require care or, perhaps, that their symptoms are not secondary to a mental health condition at all (e.g., headaches, sexual dysfunction, poor sleep). Even if they do recognize that their symptoms may be secondary to a mental illness, concern that the mental health clinician might limit or remove them from duty also prevents them from coming forward. For example, a psychiatrist may recommend that a suicidal military policeman or woman not have access to firearms, which effectively removes them from their assigned job for an indefinite amount of time. It should be noted that military mental health providers face the unique additional challenge of having reporting responsibilities to the Commanding Officer about a patient’s status and ability to complete his or her job in a safe manner [29]. Although active duty service members have most of the health-care information protections that civilians do, an important caveat is the Commanding Officer must be informed when the service member’s condition may interfere with the mission, or there is concern for risk of harm to self or others. Therefore, although mental health services are often made available, there are a number of reasons deterring service members from accessing care.

These barriers to care increase exponentially when a service member transitions to Veterans Affairs (VA) healthcare after completion of his or her time in service. This transition is particularly onerous due to the lack of a unified electronic medical record between DoD healthcare and VA healthcare, although there are increased efforts to improve the communication between these two systems. It can also be exceedingly difficult to gain access to prescriptions/medication management during this time, and case management/case coordination is notoriously limited. Once a veteran makes the transition, there is still a significant mistrust of the quality of care, particularly after a number of recent high-profile scandals [30]. Additionally, because of demand and limited resources, establishing care with VA mental health can be a months-long ordeal [31].

Upon transitioning out of the military, service members are evaluated for medical conditions which manifested while active duty (though they can request to be re-evaluated at any point through the VA system). Certain medical diagnoses, PTSD included, confer varying amounts of benefits which result in monthly disability payments, access to care, etc. While certainly not the norm, providers should consider secondary gain if a patient’s symptoms are atypical for the diagnosis or if they appear disingenuous or overexaggerated.

Finally, though much of the medical literature and popular culture focuses on the negative effects of combat, it is important to recognize there are many positive experiences inherent in combat deployments. Previous generations, likely due to the higher proportion of citizens serving in the armed forces, appear to have appreciated this much more than we do today, and it is not uncommon for veterans to share bitter feelings toward the general public for not understanding this complex relationship. Studs Terkel writes in his book *The Good War*, that “if war were purely and absolutely bad in every single aspect and toxic in all its effects, it would probably not happen as often as it does. But in addition to all the destruction and loss of life, war also inspires the ancient human virtues of courage, loyalty, and selflessness that can

be utterly intoxicating to the people who experience them [32].” In fact, this is one of the reasons that service members who previously deployed to a combat zone are more likely than their colleagues who have not, to sign on to do another tour. Consequently, one should not discount the sense of family and belongingness that comes from being entrenched in a unit exposed to the horrors of war with only each other to depend on. *Unlike treating victims of other types of trauma (e.g., abuse, assault, natural disaster), combat veterans will readily identify aspects of their experience that they wish to retain.* It is really these positive aspects of combat that can make successful treatment in this population so difficult to achieve.

Vignette

Mr. B is an actual patient. Some details have been omitted to preserve his confidentiality.

Mr. B enlisted in the US Navy at the age of 18 and was selected for the rate of builder (BU) in the Seabees. After completing basic and advanced training to gain technical expertise, he responded to a call for volunteers to join an elite unit within the Seabees to train to become an armed escort for military convoys. He attended several months of specialized weapon training and tactics before joining a unit that was deploying to Iraq (he would go on to deploy twice to Iraq and once to Afghanistan over the next 3 years).

Nearly every day during his deployments to Iraq and Afghanistan, his team would be tasked, usually at night, to escort a convoy of vehicles from one point to another in heavily armored vehicles called Mine-Resistant Ambush Protected vehicles or MRAPs. There were no easy or routine missions; ambushes and improvised explosive devices (IEDs) were an ever-present concern, though his unit grew accustomed to the tense realization that their lives were constantly in danger. On most missions, they encountered mortar attacks which were usually dismissed as less concerning due to their inaccuracy. Less frequent, but much more dangerous and feared, were the IEDs. They were typically strategically placed to destroy or immobilize the first vehicle, whereupon the enemy would open fire on the remainder of the convoy.

Mr. B reports being hit three times by an IED over the course of his deployments, all of which contributed in varying amounts to the painful memories he relates to combat. A close friend of his died in the first IED. In the second, he sustained a head injury and experienced loss of consciousness with a subsequent mild traumatic brain injury (TBI). Over the course of several sessions, however, it became apparent that the most distressing to him was the third, which occurred toward the end of his deployment to Afghanistan. He was traveling in the second vehicle when the first exploded into a ball of flames.

In our initial sessions, Mr. B was not entirely sure why the last incident was the most distressing, but this was a subject of frequent exploration as we continued working together. As we came to discover, one contributing factor was a powerful

visual image of the explosion. He can still see this image very clearly, and when around flames, he has difficulty controlling the repetitive intrusion of this image.

In addition to the power of this image, the patient also described feeling as though he underwent a change over the course of his three deployments. Specifically, he became more aware of, and affected by, the events around him. He described himself in the first few years of service as being somewhat calloused and untouched by the ethical dilemmas inherent in combat, and he reflected relatively little on the people he was fighting. During those early years, the people attacking the convoys were simply evil, and it was his unit's job to defend themselves and their team. Gradually he became more aware of signs that this black and white conceptualization was missing something. He began to question the validity of the intelligence gathered to demonstrate that many of the IEDs were set by the property owners, as he noticed a number of signs indicating that the Taliban coerced and claimed that the Americans intended to cause them (noncombatants) harm. Additionally, he became more aware of the impact the war was having on the children in the country, and he noticed that these distressing thoughts increased in frequency and intensity once he had children of his own, several years after his last combat deployment.

Case Discussion

The experience of combat veterans has been a focus of the recorders of the human experience since the earliest forms of the written word. As our society places a greater emphasis on individual over community experiences and as our wars have become an event only experienced by a small minority of the population, we have become less comfortable listening to the experiences of modern warriors. The division between service members and civilians is frequently not only a reason for combat veterans seeking mental health care, but it is also one of the largest obstacles preventing them from seeking help. Clinicians must recognize the presence of this divide and learn skills to mitigate the impact of this obstacle. In the following paragraphs, we discuss the case above and highlight the knowledge and skills that may allow clinicians to bridge this divide. Before doing so, it is worth emphasizing that the advice that follows is not meant to replace the most important skill in communicating with patients: listening. Jonathan Shay, as the author of one of the most famous and certainly most useful pieces on communicating with veterans wrote, "Healing from trauma depends upon communalization of the trauma – being able to safely tell the story to someone who is listening and who can be trusted to retell it truthfully to others in the community. So before analyzing, before classifying, before thinking, before trying to *do* anything – we should *listen* [6]."

After the patient's name, the first information shared about him is the branch of service he joined. We emphasize this here to address a common and understandable mistake that people make in referring to all branches of the armed services as the Army, or all military service members as soldiers. There are many nations that have a single armed service, but in the United States, the various military branches (Army, Navy, Air Force, Marine Corps, and Coast Guard) each spend a great deal of

their initial training of recruits instilling the unique history and customs of their respective branch. Calling a Marine a soldier may not cause a visible response, but it is likely to make it more challenging to build a therapeutic alliance, because in the minds of a service member, these are dramatically different experiences. And while it would not be reasonable to expect all clinicians to have an intricate knowledge of each service branch, it can be helpful for patients to know that the clinician is thoughtful about their line of work. This can be accomplished by demonstrating curiosity and asking questions about the patient's particular branch and what sets it apart from the others, laying the groundwork for establishing trust and respect in the relationship.

After Mr. B's name and branch of service, his rating, roughly equivalent to the term Military Occupation Specialty (MOS) in other branches, is reported identifying the service member's technical skill. Knowing about this term is helpful because it will provide information about the patient and convey thoughtfulness to the patient about their experience. We encourage and recommend that clinicians take the time to talk to their patient about the duties and requirements of their job and how they chose it. Clinicians will begin to appreciate the diverse roles that service members in each of the branches hold to support the overall mission.

It is worth being cautiously curious, however, as their rate/MOS may bear little similarity to the service member's actual job. Hearing the job title of "builder" does not automatically conjure an image of an armed escort ensuring the safe transport of people and materials within a war zone. It is also common for individuals to spend large portions of their time in service working outside of their rate/MOS, which was especially true during OEF (war in Afghanistan) and OIF (war in Iraq) where, for example, many sailors found themselves deployed to desert units working as armed guards for detainees. As such, it is always appropriate to ask whether or not the patient has spent time working outside of their rating.

The vignette described above discussed three separate traumatic incidents. The earlier sessions focused on the patient's first two IED experiences, both of which appeared more traumatic to the treating provider, as opposed to the third IED, due to his friend getting killed and the resultant TBI. However, while the patient endorsed some emotional distress stemming from these incidents, the third incident drove the majority of his trauma-related symptoms. By asking this patient to explore this discrepancy, a discussion was initiated regarding how his thinking about his role within the war changed and how he began to grapple with the ethical and moral aspects of his team's actions. The term "moral injury," used by Jonathan Shay to describe the long-lasting distress as a result of leadership failings, has become a term used to capture the emotional symptoms (other than fear) that can result from combat trauma such as anger, disgust, guilt, and shame. While the details of some traumas might appear more severe at the surface, it is important to consider the patient's perspective of which emotions and symptoms are most distressing to them, while acknowledging that these may not necessarily be fear or anxiety.

The information presented here was collected over several sessions. In the authors' experience, it is not unusual for combat veterans to reveal only a portion of their story in the initial session. There are a number of powerful psychological

factors common in this community that prevent full disclosure of emotionally distressing symptoms (discussed in further detail in the “**Factors Impacting Care**” section of this chapter). Over the course of the last decade, impressive strides have been made to reduce the stigma associated with experiencing psychological symptoms and searching for or receiving psychological treatments, but this remains a barrier for many combat veterans. Addressing and understanding the shame, embarrassment, guilt, or other negative emotions which may conflict a patient about reaching out for care are an important first step in gathering a full history and developing a therapeutic alliance. As the clinician demonstrates a willingness to discuss the personal, painful, and embarrassing, rapport slowly builds, and other pertinent details are sure to present themselves.

Another obstacle to obtaining a complete history and building a therapeutic alliance is the fact that many veterans do not associate their symptoms with traumatic events, or if they do, focusing on a specific one is challenging. Allowing for space and time to explore multiple events is challenging but may be required in order to craft a comprehensive treatment plan. It can be helpful to create a timeline of events in order to structure the treatment and then address each event systematically.

A final obstacle that may present a barrier is the addition of positive emotions that the patient may associate with combat. Western literature is replete with examples of veterans struggling with fond memories of such a horrific time. Mr. B remains on active duty, having transferred to a position with greater upward mobility and stability, but remained deeply conflicted about leaving his unit. He missed the sense of community and felt that he may, in some way, have let them down. One of the most therapeutic actions he took was to search for ways to rekindle this sense of belonging and re-engage with the parts of his former job that brought him joy and purpose. The patient now frequently seeks out experiences at his current command to teach others about antiterrorism tactics and how to use/handle their weapons, even though this is far outside of his current job description. Mr. B describes feeling an improved sense of purpose and meaningfulness, and helping him to identify this sublimation and appreciate the conflict between both the positive and negative experiences of combat has been a powerful tool for healing.

Comments and Recommendations

Psychiatric disorders and particularly trauma and stressor-related disorders are among the leading causes of morbidity in the military. Below we discuss both the evidence-based treatments put forth for treating combat veterans, as well as provide a number of recommendations based solely on the authors’ clinical experience with this population.

In 2017, the *VA/DoD Clinical Practice Guideline for the Management of Posttraumatic Stress Disorder and Acute Stress Disorder* (summarized in Table 4.1) was released with updated treatment recommendations [33]. In general, individual, manualized, trauma-focused therapy continues to be the recommended first-line treatment for all trauma-related disorders. This includes cognitive processing

Table 4.1 Summary of the 2017 VA/DoD clinical practice guidelines for treatment of trauma-related disorders [33]

Treatment type	Recommendation
Psychotherapy	
Exposure therapy (Prolonged exposure, PE)	Strongly recommend
Cognitive processing therapy (CPT)	Strongly recommend
Eye movement desensitization and reprocessing (EMDR)	Strongly recommend
Stress inoculation training (SIT), present-centered therapy (PCT), and interpersonal psychotherapy (IPT)	Weakly recommend
Dialectical behavior therapy (DBT), Skills training in affective and interpersonal regulation (STAIR), Acceptance and commitment therapy (ACT), Seeking safety, and supportive counseling	Insufficient evidence
Group therapy	Weakly recommend
Couples therapy (as a primary treatment)	Insufficient evidence
Pharmacotherapy-monotherapy	
Sertraline, paroxetine, fluoxetine, or venlafaxine	Strongly recommend
Nefazodone, imipramine, or phenelzine	Weakly recommend
Quetiapine, olanzapine, and other atypical antipsychotics (except for risperidone)	Weakly against
Divalproex, tiagabine, guanfacine, risperidone, benzodiazepines, ketamine, hydrocortisone, or D-cycloserine	Strongly against
Cannabis, cannabis derivatives	Strongly against
Escitalopram, bupropion, desipramine, doxepin, duloxetine, desvenlafaxine, fluvoxamine, mirtazapine, nortriptyline, trazodone, vilazodone, vortioxetine, and bupirone	Insufficient evidence
Prazosin (for nightmares)	Insufficient evidence
Pharmacotherapy-augmentation therapy	
Atypical antipsychotics, benzodiazepines, and divalproex	Strongly against
Topiramate, baclofen, or pregabalin	Weakly against
Prazosin (for nightmares)	Insufficient evidence
Non-pharmacological biologic therapy	
Repetitive transcranial magnetic stimulation (rTMS), Electroconvulsive therapy (ECT), Hyperbaric oxygen therapy (HBOT), Stellate ganglion block (SGB), or Vagal nerve stimulation (VNS)	Insufficient evidence

therapy (CPT), prolonged exposure (PE), and eye movement desensitization and reprocessing (EMDR), among others. Second-line treatments include non-trauma-focused psychotherapy and pharmacotherapy, which are summarized in the table below. Perhaps the most notable change in regard to pharmacologic interventions is for prazosin (Minipress). Although once thought to be a relatively successful intervention for trauma-based nightmares, prazosin is no longer recommended for or

against nightmares due to increasing evidence that it may be less efficacious than previously believed. In general, selective serotonin reuptake inhibitors (SSRIs) are recommended for the depressive and anxiety symptoms due to PTSD with sertraline (Zoloft), paroxetine (Paxil), and fluoxetine (Prozac) having the strongest recommendations (in addition to venlafaxine [Effexor], a serotonin-norepinephrine reuptake inhibitor). It should also be noted that as cannabis and its derivatives (to include cannabidiols or CBD) become more readily available, clinicians are likely to receive more questions from patients regarding its efficaciousness. Currently, the guidelines strongly recommend against use of the agents as monotherapy, though no formal recommendations have been made regarding the use of these compounds in conjunction with other treatment modalities.

In addition to the above treatment recommendations, there are three key areas which these authors believe should be addressed during treatment: reintegration, children/family, and closure.

Reintegration is the principle of rediscovering purpose and intimacy. For a soldier, sailor, marine, or airman, the return from a deployment is psychologically complex. The media's typical portrayal of service members surprising exuberant family members upon their return fails to capture the weeks or months of adjusting back into a new routine for both the service member and their family. These brief, simplistic representations also set up the unrealistic expectation that a return home will be unequivocally positive. Working through traumatic experiences is part of this adjustment, and implementing a comprehensive strategy to identify and address these concerns can significantly improve the service members functioning and quality of life after deployment. One of the most difficult tasks for service members after returning from combat is readjusting to a day-to-day schedule that is dramatically less intense and regimented than when they were deployed. There is often significantly less group cohesion, and the sense of closeness and camaraderie felt within the unit is no longer present. If left unaddressed, this loss of a sense of belongingness (often identified as loneliness) can persist, even if it has been many years since the patient's combat experience. Providers should encourage a patient to look for ways to regain this connectedness. Some ideas include volunteer work, community involvement, or even looking for an occupation with a strong mentorship aspect (e.g., coach, teacher). As illustrated in the case of Mr. B, this can be particularly effective if the patient is able to recapture some of the positives of their military experience. Thus, mentoring or volunteering with young service members, or even teaching some of the skills involved in their military jobs, can be profoundly healing. Providers should also screen for sexual dysfunction and intimacy issues between the patient and his or her spouse or significant other, as this can be an intense barrier to reintegration for those suffering from a trauma-related disorder.

Providers should also remember that it is not just the patient who suffers after combat trauma. Therefore, it is important to integrate spouses and children into the treatment as well. Care should focus on providing safety, information, and assistance/referrals to community resources in order to facilitate a combat-injured family's recovery. Consideration should be given to individual therapy for family

members, marital, and even family counseling in order to ensure that a family is able to relieve distress and communicate about the effects of combat trauma in a productive and effective way. It can also be helpful to connect the family to community resources (such as support groups) to help decrease the feeling of isolation or feeling as though nobody else can understand their circumstances. Further, this may have the secondary benefit of helping to facilitate reintegration. If the patient is still on active duty, consider referral to FOCUS (families overcoming under stress) [34] or FAP (family advocacy program) [35], which can be accessed on most military bases or online. The VA also has a number of programs and services which family members can access as well, though these vary by location [36].

Finally, it is important to allow the service member time to grieve. Oftentimes, in the midst of war, there is no time for a memorial service or a funeral. If loss is a prominent factor of a patient's trauma, consider encouraging the patient to participate in such an event. It can be formal or informal, religious, or otherwise, and it can be something they do alone or as part of a group (perhaps within their unit or command, if applicable). This ceremony can be adapted to allow for the opportunity to grieve the loss of a specific person or even a more abstract loss (e.g., loss of innocence, loss of "the way things were"). The ultimate goal of this event is to provide an opportunity for the patient to remember and show appreciation for that which was lost, allow time to grieve, and create hope for a new beginning [37, 38].

Summary of High-Yield Points

- While treating combat trauma can be quite difficult, particularly for providers with limited knowledge of the military and the unique cultural background it provides those who serve it, this work is becoming increasingly relevant as both awareness of the psychological effects of combat improves and operational tempo increases (i.e., an increase in the number of deployments, often in the context of war).
- Providers endeavoring in this work should, firstly, understand the power of and responsibility to the unit with whom our patients serve alongside. They should understand that not all combat experiences are negative and that frequently there are positive aspects which service members hold on to dearly. Successful treatment allows the patient to reconcile these opposing experiences.
- Additionally, many service members, while proud of their service, may feel as though only those who have served will understand their experiences and may be hesitant to open up to a civilian. In these cases, providers are encouraged to ask questions and do their own research in order to gain a better understanding of the patient's military and combat experience.
- Treatment should include an evidence-based, trauma-focused therapy, and special attention should be paid to recapturing the sense of community fostered in the military (whether that is through occupation, volunteering, or community involvement), while also allowing time to grieve any loss that may be a part of the patient's trauma.

- Providers may also consider incorporating some sort of ceremony into treatment in an effort to give the service member a venue to not only honor those lost, but also to provide a sense a closure which can frequently be overlooked during combat.
- Finally, providers would be wise to remember that service members and veterans do not exist in a vacuum; their spouses and children are also affected by combat trauma and treatment should address the family as a whole.
- Ultimately, if undertaken and approached with a sense of openness, curiosity, and willingness to share the burden of the traumatic experience, treatment of combat trauma can be an incredibly fulfilling and, quite literally, a life-saving intervention.

Acknowledgement LT Savannah Woodward and LCDR David Nissan are military service members and employees of the US government. This work was prepared as part of their official duties. Title 17U.S.C. 105 provides that copyright protection under this title is not available for any work of the US Government. Title 17U.S.C.101 defines a US Government work as work prepared by a military service member or employee of the US Government as part of that person's official duties.

References

1. Babylonian Talmud (Avodah Zarah 37b), citing Numbers 19:22: "And whatsoever the unclean person touches shall be unclean." The rabbis decreed that if a person defiled by the dead had touched another person, the person who had been touched is under a seven-day period of defilement, and cannot eat of Terumah or hallowed things until that period had expired (cf. BT Nazir 42b).
2. Junger S. Tribe: on homecoming and belonging. HarperCollins Publishers; 2016.
3. Schafer A. The Warrior Caste. <https://slate.com/news-and-politics/2017/08/the-warrior-caste-of-military-families-that-fight-americas-wars.html>. Accessed 16 May 2020.
4. Stern T, et al. Massachusetts general hospital psychiatry update & board preparation. 4th ed. MGH Psychiatry Academy; 2017.
5. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed., Text Revision. American Psychiatric Association; 2013.
6. Shay J. Achilles in Vietnam: combat trauma and the undoing of character. Scribner; 1994.
7. Myers CS. Autobiographical notes; F.C. Bartlett, BMFRS 5 (1948); idem, Am J Psychol. 50 (1937).
8. Hurst A. The man who filmed shell shock. Home Front, BBC. <https://www.bbc.co.uk/programmes/articles/4VqPtrjsgcPKtgmYc2M5vXz/arthur-hurst-the-man-who-filmed-shell-shock>. Accessed 2 May 2020.
9. Jones E. War neuroses and Arthur Hurts: a pioneering medical film about the treatment of psychiatric battle casualties. J Hist Med Allied Sci. 2016;67(3):245–373.
10. Shell Shock. Inside out. BBC. http://www.bbc.co.uk/insideout/extra/series-1/shell_shocked.shtml. Accessed 2 May 2020.
11. Trueman CN. World War One executions. The History Learning Site. [historylearningsite.co.uk](http://www.historylearningsite.co.uk). Accessed 31 Mar 2015.
12. Shephard B. A war of nerves: soldiers and psychiatrists in the twentieth century. Harvard University Press; 2001.

13. Karl A, Schaefer M, Malta LS, et al. A meta-analysis of structural brain abnormalities in PTSD. *Neurosci Biobehav Rev.* 2006;30(7):1004–31.
14. Geraciotti TD Jr, Baker DG, Ekhtor NN, et al. CSF norepinephrine concentrations in post-traumatic stress disorder. *Am J Psychiatr.* 2001;158(8):1227–30.
15. Hendrickson RC, Rasking MA. Noradrenergic dysregulation in the pathophysiology of PTSD. *Exp Neurol.* 2016;284(B):181–95.
16. Jones M, Sundin J, Goodwin L, et al. What explains post-traumatic stress disorder (PTSD) in UK service personnel: deployment or something else? *Psychol Med.* 2013;43(8):1703–12.
17. Seal KH, Cohen G, Waldrop A, et al. Substance use disorders in Iraq and Afghanistan veterans in VA healthcare, 2001–2010: implications for screening, diagnosis, and treatment. *Drug Alcohol Depend.* 2011;116(1–3):93–101.
18. Halbauer JD, Ashford JW, Zeitzer JM, et al. Neuropsychiatric diagnosis and management of chronic sequelae of war-related mild to moderate traumatic brain injury. *J Rehabil Res Dev.* 2009;46(6):757–96.
19. Hoge CW, McGurk D, Thomas JL, et al. Mild traumatic brain injury in U.S. Soldiers returning from Iraq. *N Engl J Med.* 2008;351(1):13–22.
20. Walker WC, Franke LM, McDonald SD, et al. Prevalence of mental health conditions after military blast exposure, their co-occurrence, and their relation to mild traumatic brain injury. *Brain Inj.* 2015;29(13–14):1581–8.
21. Cohen BE, Marmar C, Ren L, et al. Association of cardiovascular risk factors with mental health diagnoses in Iraq and Afghanistan war veterans using VA health care. *JAMA.* 2009;302(5):489–92.
22. Howard JT, Sosnov JA, Janak JC, et al. Associations of initial injury severity and posttraumatic stress disorder diagnoses with long-term hypertension risk after combat injury. *Hypertension.* 2018;71(5):824–32.
23. O'Donovan A, Cohen BE, Seal KH, et al. Elevated risk for autoimmune disorders in Iraq and Afghanistan veterans with posttraumatic stress disorder. *Biol Psychiatry.* 2015;77(4):365–74.
24. Song H, Fang F, Tomasson G, et al. Association of stress-related disorders with subsequent autoimmune disease. *JAMA.* 2018;319(23):2388–400.
25. Spitzer C, Barnow S, Völzke H, et al. Trauma, posttraumatic stress disorder, and physical illness: findings from the general population. *Psychosom Med.* 2009;71(9):1012–7.
26. Study explores why Veterans seek-or don't seek-PTSD care. U.S. Department of Affairs. <https://www.research.va.gov/currents/spring2014/spring2014-25.cfm>. Accessed 3 May 2020.
27. Gradus JL. PTSD: National Center for PTSD. U.S. Department of Veteran Affairs. <https://www.ptsd.va.gov/professional/treat/essentials/epidemiology.asp>. Accessed 31 Aug 2019.
28. Langston V, Gould M, Greenberg N. Culture: what is its effect on stress in the military? *Mil Med.* 2007;172(9):931–5.
29. Kutz DL. Military psychiatry: a cross-cultural perspective. *Mil Med.* 1996;161(2:708):78–83.
30. Cheney AM, Koenig CJ, Miller CJ, et al. Veteran-centered barriers to VA mental healthcare services use. *BMC Health Serv Res.* 2018;18(1):591.
31. Whealin JM, Nelson D, Kawasaki MM, et al. Factors impacting rural Pacific Island veterans' access to care: a qualitative examination. *Psychol Serv.* 2017;14(3):279–88.
32. Terkel S. *The good war: an oral history of World War Two.* Pantheon Books; 1984.
33. VA/DoD Clinical Practice Guideline for the Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Department of Veterans Affairs and Department of Defense. <https://www.healthquality.va.gov/guidelines/MH/ptsd/VADoDPTSDPCG/ClinicianSummaryFinal.pdf>. Accessed 31 Aug 2019.
34. The Focus Project. <https://focusproject.org/>. Accessed 30 May 20.
35. Military One Source. Department of Defense. <https://www.militaryonesource.mil/family-relationships/family-life/preventing-abuse-neglect/the-family-advocacy-program>. Accessed 30 May 2020.

36. Caregiver Tips – PTSD. U.S. Department of Veterans Affairs. https://www.caregiver.va.gov/Tips_by_Diagnosis/PTSD.asp. Accessed 30 May 2020.
37. Greenleaf AT, Roessger KM, Williams JM, et al. Effects of a rite of passage ceremony on veterans' Well-being. *J Couns Dev.* 2019;97(2):171–82.
38. Uniformed Services University: Funerals and Memorials A Part of Recovery. Center for the Study of Traumatic Stress. https://www.cstsonline.org/assets/media/documents/CSTS_FS_Leadership_Funeral%20and%20memorials_%20a%20part%20of%20recovery.pdf. Accessed 31 Aug 2020.