

Assessing the Utilization of Therapeutic Outlets for the Alleviation of Symptoms
Associated with PTSD in Military Veterans

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Introduction

As a subset of the American population, military veterans have some of the highest rates of mental illness, specifically post-traumatic stress disorder (PTSD)²⁹. A study conducted by Fulton et al. (2005) showed that approximately 23% of soldiers who were deployed during Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) have been diagnosed with PTSD⁹. Research has also shown evidence for using alternative methods to alleviate symptoms after experiencing trauma^{18,21,30,238,48}. While extensive research has been done on therapeutic outlets, including complementary and alternative medicine (CAM), as treatment for mental illness, few academic sources have explored this treatment within the military community specifically. Gaining a better understanding of how, when, and what types of therapeutic outlets can be used as an alternative or supplemental treatment for PTSD in military veterans will allow providers and institutions to implement more effective and desired treatment protocols. I argue that stigma surrounding mental illness, adverse physical side effects associated with the prescription drugs used to treat PTSD, barriers to a wide range of treatment options, and institutional pressure can deter soldiers from both seeking treatment and from receiving comprehensive care, including obtaining access to therapeutic outlets.

Why Veteran Mental Health Matters

Receiving a diagnosis for post-traumatic stress disorder is often one small step in a considerably larger and more complex mental health journey. PTSD is a pervasive disease with high rates of comorbidities, such as substance abuse and depression²⁹. Military personnel face a significantly higher risk of developing PTSD than civilians, which increases their odds of feeling unproductive at life activities that promote positive living conditions²⁹. Examples of life activities that can become difficult when compounded with PTSD include finding and keeping a job, maintaining a stable living situation, and managing social relationships.

It is important to not become desensitized to the label of “veteran” and remember that these men

and women have lived within the realm of death for months at a time. This contextualizes the statistics showing that approximately 1 out of every 10 homeless persons in America is a military veteran, and 1.4 million veterans can be classified as “at risk of homelessness”²⁷. Half of these homeless veterans have a “serious mental illness”, which can include PTSD²⁷, and upwards of 22 veterans commit suicide every day¹⁷. With mental health being a growing issue in the United States, and with the disproportionate number of military veterans being diagnosed, it is considerably important to address PTSD within this specific population.

The military lifestyle is rooted in goal and mission orientation, skills training, and achieving the status of being mentally and physically fit. I argue that their lifestyle predisposes them to successful outcomes with therapeutic outlets, which mimic military training. Engaging in these therapeutic activities will provide them with attainable goals, constructive ways to funnel negative emotions, conquerable challenges, and has the potential to increase their physical and mental fitness. For these reasons, it will be critical to consider therapeutic outlets as a leading intervention in treating this debilitating disease within the veteran community. Effective and desirable treatments will improve patient compliance and satisfaction, increase rates of employment, and promote meaningful utilization of the unique skills of veterans, while also reducing the number of homeless and impoverished Americans.

Literature Review

Military Training

Military training is important to recognize because it provides insight into the rigid protocols and standards that become a way of life for soldiers. Soldiers begin their career by undergoing basic training followed by subsequent Military Operations Skills (MOS) training to further expand their skillsets. Many soldiers exist within these social and institutional constructs for more than 20 years, abiding by the military's strict standards and rules. Thus, it's logical to reason that the effects these training programs have on them last throughout many years of their life.

Basic training, informally known as "boot camp", lasts between 6-13 weeks and consists of rigorous physical and mental training²⁶. This training is meant to transform new recruits into mentally and physically strong members of their respective branches. Military history, values, and traditions are taught alongside more practical skills such as "first aid, water survival skills, marksmanship, [and] tactics^{26,44}." Basic training is not meant to be easy. In fact, one of its sole purposes is to challenge soldiers enough to familiarize them with the challenges they will face throughout their career. A military website has posted the following tips about basic training, which exemplify the demanding standards these women and men are held to²⁶:

- "Boot camp is mostly a mind game. It's designed to take the civilian out of you and replace it with a top-notch military servicemember (Soldier, Sailor, Marine, or Airman). Thousands of young men and women have survived basic before you - just roll with it.
- Keep a good attitude. Remember, EVERYONE gets chewed out in boot camp, even when they have done well. It won't be this way after you graduate Basic.
- Never, ever, make excuses. Unless you are asked to explain yourself, explanations are seen as excuses, so just say "Yes, sir" and take the chewing out.
- Do exactly what you're told to do, when you're told to do it, and how you're told to do it. Don't be inventive.
- If you're "on time," then you're late. Always be where you're supposed to be five minutes early²⁶."

Basic training is meant to do more than just challenge a soldier, however. It also intends to

strengthen bonds between peers so that they can more easily complete their missions through teamwork²⁵. Alongside collaboration, programs are specifically designed to promote high levels of performance in stressful situations²⁵. A man who went through The Crucible training, basic training specifically for Marines, explained that during the program the recruits got only 8 hours of sleep over a span of 54 hours²⁵. They receive limited food rations and are commanded to march over 40 miles in treacherous conditions²⁵. The goal of The Crucible is to promote teamwork among the new recruits, teach survival skills, and test the limits of individuals. The programs are also meant to promote feelings of success. A Marine recruit stated, “I am going to finish this... And when I do, it will be the most positive thing I have done in my life²⁵.” While the work is grueling, training is meant to harbor and promote positive feelings associated with overcoming obstacles, expanding individuals’ physical and mental capacities, and prospering in extremely difficult situations.

Training does not end after boot camp. Different branches vary slightly in program features and language, but all soldiers continue operations and skills training throughout their career. Sometimes, this training is mission specific and soldiers will train as they are assigned to a mission. Other times, this training is jobs based and is aimed at developing and refining more long term skills. Examples of continued training include night mission training⁴⁰, B-1 bomber training²³, and Advanced Individual Training (AIT)²⁴. These types of continuous training programs promote excellence and expertise in the individual’s specialty alongside goal and mission accomplishment⁴⁸.

OEF/OIF

On 11 September 2001, the United States fell victim to the worst set of terror attacks on American soil in history. These attacks provoked President Bush to call our troops to war just four weeks later, on 7 October 2001. Combat operations were focused in Afghanistan, targeting Al Qaida and the Taliban, which are two terrorist organizations. These operations were collectively dubbed “Operation Enduring Freedom” (OEF)⁵⁰. Operation Enduring Freedom lasted for 13 years, beginning in October 2001 and officially ending in December 2014 under the Obama Administration³⁹. During this time, a second

Military operation, called Operation Iraqi Freedom (OIF), was simultaneously taking place. Operation Iraqi Freedom began in March 2003 and officially ended in 2011⁸. This operation focused on the defense of Baghdad and the reinstatement of a peaceful regime⁸. The Military targeted Saddam Hussein, a violent leader in the region, and the Ba'ath party⁸. For the purpose of this paper, I will consider Operation Enduring Freedom and Operation Iraqi Freedom as one, as they faced much overlap. I will refer to them using the term OEF/OIF.

Throughout OEF/OIF, over two million men and women were deployed and faced various forms of direct and indirect combat³. Indirect forms of combat could include people who served as medical officers or intelligence officers, whom of which were not in the direct line of combat but were still exposed to war zones. OEF/OIF were unique because they constituted the longest set of military operations since the Vietnam war. Additionally, all of the members of OEF/OIF were considered voluntary since a draft was never instated¹⁴. Modern military technology has also changed the landscape of war. The atomic bomb, “jet aircraft, guided missiles, microwave radar, and the proximity fuse” have all been developed within the last 100 years, among other forms of weaponry and technological capabilities³³. These innovations make mass destruction from removed locations possible. The militarization of science and technology have changed the possibilities of war. Emerging technologies such as nanotechnology, cyber-everything, 3D printing, and biotechnology among others have increased potential destructive power²⁰. As war continually undertakes an evolved façade, so does the experience of it.

Post-traumatic Stress Disorder and Veterans

Post-traumatic stress disorder is classified in The Diagnostic and Statistical Manual, Fifth Edition (DSM-5) as a “psychiatric disorder that can occur in people who have experienced or witnessed a traumatic event such as a natural disaster, a serious accident, a terrorist act, war/combat, rape or other violent personal assault².” While a clinical diagnosis requires experiencing some form of trauma, exposure to the traumatic event does not have to be firsthand². Indirect exposure, such as indirect combat

in war zones or experiencing the death of friends within the military, can still cause PTSD². Additionally, symptoms may or may not appear right away². Symptoms often develop within 3 months of the trauma but they can develop after this timeframe as well². Symptoms are categorized into four groups: intrusive thoughts, avoiding reminders of the event, negative thoughts and feelings, and arousal and reactive symptoms². From a patient's perspective, these symptoms are often described as feeling hypervigilant, having trouble sleeping, experiencing nightmares, feeling guilty, feeling detached, or partaking in self destructive behavior. Symptoms can present in a variety of ways, which is why a trained professional should assess anyone who is potentially suffering from PTSD.

Approximately 1 out of every 4 (23%) soldiers who were deployed during OEF/OIF have been diagnosed with PTSD⁹. While studies slightly disagree on the exact prevalence, it is widely agreed upon that PTSD in war veterans is a growing concern for numerous reasons. Among those diagnosed, there has been high rates of associated suicidal ideation, substance abuse, and other comorbidities that further challenge a veteran's return to a normal and stable life within the civilian community³.

Issues surrounding mental health in military personnel are extremely complex. Primarily, there is the issue of dual stigmatization. The general American society stigmatizes mental illness, but there is an additional, heightened amount of stigma placed on mental illness specifically within the military community. This creates the concept of "dual stigmatization", which is additionally complicated by additive factors such as gender, life history, and other 'outsider' sentiments felt by individuals. Breaking down stigma within the military community is difficult because there are so many layers. However, some studies have begun to deconstruct it. Stigmatization around mental health disorders can deter soldiers from seeking care for reasons such as fear of retaliation from their bosses, compromising security clearance, and being seen as unfit for duty^{6,11,21}. Some efforts have been made to reduce stigmatization of mental health illnesses among soldiers. For example, the Navy has reverted from using a binary system of identifying soldiers as either "ready" or "ill" and has put in place a more continuous spectrum of conditional states that the soldier can be classified as⁶. This new system has been working to reduce the association of a mental illness diagnosis with being unfit for duty⁶. There has also been encouragement

for “mental training” alongside actual physical training⁶.

Standard Treatment

Post-traumatic stress disorder is traditionally treated with selective serotonin reuptake inhibitors (SSRIs) and serotonin-norepinephrine reuptake inhibitors (SNRIs). These are commonly referred to as antidepressants. Both medications work by binding to the presynaptic cleft during neurotransmission, thus inhibiting reuptake of serotonin and norepinephrine respectively into the presynaptic cleft. This leads to greater amounts of serotonin and norepinephrine available to the brain³⁷. The three common SSRIs prescribed for PTSD are Sertraline (Zoloft), Paroxetine (Paxil), and Fluoxetine (Prozac)⁴⁵. The most common SNRI is Venlafaxine (Effexor)⁴⁵. Antidepressants can cause a multitude of side effects including insomnia, nausea, weight gain, sexual dysfunction, dry mouth, agitation, anxiety, and withdrawal symptoms¹.

To further complicate the problem, emotional trauma, specifically PTSD, is usually classified as chronic rather than acute². This is reasonable as the impression trauma leaves on its victims is usually long-lasting and life-altering. This is what makes mental illness following trauma different from seasonal depressive disorders and depressive episodes stemming from temporary causes. So, not only are soldiers being prescribed medications with adverse side effects, they are also being prescribed to them for a long period of time. Some PTSD symptoms can last a lifetime, so prescription medications could potentially be used for the duration of years. In a study assessing patients' (n=180) satisfaction with long-term use of antidepressants, the results were grim. Over 50% of users expressed experiencing adverse side effects⁵. The adverse side effect with the highest reporting rate was sexual difficulties (71.8%), followed by reported weight gain (63.5%)⁵. There was also a high reporting rate of “feeling emotionally numb” (64.5%), “feeling not like myself” (54.4%), “caring less about others” (36.4%), and suicidal ideation (36%)⁵.

Therapeutic Outlets

This paper will use the term therapeutic outlets (TOs) to describe any activity or engagement that promotes mental well-being but is outside of the realm of prescription drugs. The rationale behind this broad definition is that the purpose of partaking in therapeutic outlets is to utilize highly individualized mental wellness options that are specific to different personalities and various needs. By their nature, TOs are more inclusive than they are exclusive, thus, they require a broad definition.

Many studies have been done to provide evidence for the positive effects TOs have on health outcomes^{18,21,30,38,48}. Forms of therapeutic outlets can include activities such as yoga and meditation, leisure skills such as fishing and golfing, and artistic outlets such as creative writing, painting, and narration. Other forms of therapeutic outlets include singing, horseback riding, engaging in intramural sports, and a variety of competitive athletics. Some readers may question how the concept of therapeutic outlets differs from simply leading a healthy lifestyle. The idea behind therapeutic outlets is the consistent engagement in an activity that promotes mental well-being while alleviating symptoms associated with PTSD. Ideally, this consistent engagement offers a variety of goals that partakers can strive to achieve, which in a soldier's case would mimic the standards and goals they had to achieve during their demanding military training.

A small body of literature exists within the field of occupational therapy that explores the effects of different therapeutic outlets on veterans. One study, conducted in California by occupational therapists, studied 14 veterans enrolled in a surfing intervention program³². This program's goal was to explore how veterans responded to a high-intensity, skills-based sports program. This study showed that 11/14 veterans completed all 5 weeks of the study and 10/14 completed at least 3 sessions. These numbers exhibit a high level of desirability for this intervention. Additionally, this study claimed that veterans reported a significant improvement in PTSD symptom severity ($p=0.01$)³². The limitations of this study include a small sample size and utilization of self-reporting for symptom severity. However, this still provides promising evidence supporting therapeutic outlets. Other occupational therapy studies have shown positive results with equine therapy^{34,47,22}. In one study, conducted in 2014, veterans who

underwent equine therapy showed a decline in PTSD symptoms and associated comorbidities²². The literature suggests there is both a desire for therapeutic outlets and success within these types of programs^{32,34,47}.

There is also a sizeable body of both academic and non-academic literature which focuses exclusively on art therapy. Many studies have shown positive results in art therapy's ability to alleviate symptoms associated with PTSD in military veterans^{15,19,12}. In addition to providing a safe outlet to express negative emotions associated with the trauma of war, art also can provide a social community for veterans¹⁵. One case study followed a veteran, who chose the pseudonym of Fillmore, as he completed two years of art therapy after being diagnosed with severe PTSD⁴⁹. While initially resistant to the idea, he came to enjoy his artistic engagement so much that he continued it well after his official treatment ended⁴⁹. The art he produced allowed him to express challenging emotions⁴⁹. While the study acknowledges that we still need to gain a better understanding of how best to incorporate art therapy into treatment, it does show the positive effects it can have on a veteran's mental health and wellbeing⁴⁹.

Methods

I conducted a systematic literature review to assess the role of therapeutic outlets in PTSD treatment for military veterans. I focused my research on Operation Enduring Freedom and Operation Iraqi Freedom veterans who have been deployed to combat. This specific group of military veterans was selected because they existed as both soldiers and veterans within the modern social constructs of labeling and medicalizing negative emotions and mental illness. Previously, mental illnesses and wellbeing were dealt with and talked about in much different ways and, arguably, much more privately. This particular group of men and women will face reconciliation with PTSD and depressive disorders within a more modern and medicalized environment than their predecessors. The term veteran generally refers to retired military personnel, and while that is my target population, the information presented in this paper is not necessarily exclusive to retirees. Veterans of war who no longer see combat but still hold military jobs are equally as pertinent to the results of this research.

Primarily, this review focuses on the background of OEF/OIF and PTSD to provide context for the subsequent evaluation of treatment. I then reviewed the efficiency of both standard treatment and of therapeutic outlets. I examined these treatments in context with the struggles that veterans face as they come to terms with the trauma they experienced as combat personnel and navigate their assimilation back into non-combat roles. Keywords used were “PTSD and veterans”, “veteran health”, “alternative treatment and veterans”, “therapy for PTSD in veterans”, and “occupational therapy.” I utilized a variety of academic journals such as *The Journal of Clinical Psychiatry*, *American Psychology*, *Evidence-based Complementary and Alternative Medicine*, *American Psychological Association*, *The American Journal of Occupational Therapy*, and *PTSD Quarterly*. Additionally, I utilized government and military websites including U.S. Department of Veterans Affairs and *The Military Times*.

Results

The search yielded over 700 articles that discussed various treatments for veterans with PTSD. Evidence suggests that veterans are desiring to pursue alternative treatments and therapeutic outlets^{30,32,34,47}, so it is increasingly important to look at how we can create a more holistic healing process that potentially incorporates the use of these therapeutic outlets. The benefits of therapeutic outlets have been well-researched^{18,21,30,38,48} and, in combination with addressing neurobiological abnormalities, can promote healthy lifestyles and mental rehabilitation in patients with PTSD.

Research shows that soldiers and veterans are held to rigorous mental and physical fitness standards since their first day in the military. Basic training is used as a way to challenge new recruits and test their strength^{40,23}. Even though boot camp is meant to challenge recruits, it is also viewed as a rite of passage. Succeeding in boot camp is gratifying for new recruits and allows them to feel confident about their ability to be an asset to the military²⁵. Basic and continued military training reinforces the narrative that soldiers should always be mentally and physically fit^{26,44,25}. Military training also encourages soldiers to set and meet goals, complete missions successfully, and perform at high levels under immense stress^{26,44,25,40,23,24}. These are important concepts to consider when discussing treatment options for these men and women.

Research also shows that stigma is, in fact, a prominent barrier to seeking mental health treatment in the first place^{6,11,21}. Progressive efforts have been made to reduce stigma surrounding mental illness but it still remains within the military community^{6,11,21}. Literature shows that concrete steps have been taken to reduce the association of a PTSD diagnosis with being unfit for duty⁶. However, the literature widely supports the idea that stigma is still a deterrence from seeking care^{6,11,21}.

Side effects of SSRIs and SNRIs can be managed to an extent but they can still cause the body to go through changes. These changes can make users feel physically and mentally subpar^{1,5}, especially when compared to military standards. Failing to achieve high levels of physical fitness and mental cognition, as compared to standards set by soldiers and military institutions, creates the notion that soldiers are unfit for duty^{1,5}. These high expectations can deter soldiers from desiring medications that

force them to deviate from a standard in which they were trained to meet. This finding contributes to the argument that alternative treatments, including therapeutic outlets, are meaningful options to pursue.

Contrary to the easy access to prescription medication, results showed that veterans face many institutional barriers to therapeutic outlets, which affects their chances of reaping their full benefits. Access to methods of alternative medicine, including therapeutic outlets, requires independent efforts, financial backing, and maneuvering around health care-associated barriers since TRICARE has an extensive list of exclusions. The exclusions listed by TRICARE include acupuncture, alternative treatments, gym memberships, guided imagery, certain counseling, and certain elective psychotherapies³⁹. The VA website offers a free quiz that veterans can take to identify which types of treatments they should pursue to help with their individual needs. At the end of it, the quiz produces a chart and tells veterans how available the suggested treatments are through the VA. In this chart, as stated before, the only method of treatment considered “highly available” are SSRIs and SNRIs. One area where the VA has been particularly progressive is in the implementation of access to certain cognitive behavioral therapies (CBT), including cognitive processing therapy (CPT) and prolonged exposure (PE) which are both considered subtypes of CBT²⁸. To be covered for CBT, the treatment must be deemed medically necessary and typically follows traumatic brain injuries⁴². They also cover certain ancillary therapies but only in certain circumstances including inpatient treatment and “intensive” outpatient programs⁴¹. Overall, access to complementary and alternative medicine, including therapeutic outlets, is limited.

Institutional pressure also seems to play a role in a veteran’s mental rehabilitation journey and obstructs access to therapeutic outlets. Since the VA medical system and TRICARE consider SSRIs and SNRIs as the only “highly available” treatment^{41,42,43,45,46}, there is institutional pressure on patients to partake in their usage. Due to the limited amount of coverage for alternative treatments and the high amount of coverage for pharmaceutical treatment, not only do veterans face barriers in accessing therapeutic outlets but they also face pressure to participate in the more easily accessible treatment option. Literature approaching PTSD treatment from the angle of institutional pressure was sparse, and more generally approached the issue from the perspective of barriers to access.

Overall, there is a substantial body of literature supporting the use of therapeutic outlets as a treatment option for alleviating symptoms after trauma^{18,21,30,38,48}. Several disciplines have approached this area of research including psychology, psychotherapy, and occupational therapy. Studies have also looked explicitly at veteran populations^{12,15,19,21,30,32,34,38,47}. The literature surrounding occupational therapy shows a positive relationship between therapeutic outlets and PTSD symptom alleviation in veterans^{32,34,47}. These studies also show high rates of compliance and retention in their therapy programs, contributing to the argument that veterans are desiring to pursue therapeutic outlets. Additionally, art therapy has also been shown to be beneficial for relieving PTSD symptoms within the veteran community^{12,15, 19}. Art therapy needs more academic, peer-reviewed research to prove the safety and efficacy of its ability to treat PTSD. These bodies of literature are promising for endorsing the incorporation of therapeutic outlets but need to be further developed to prove correlation between TO's and positive health outcomes.

Discussion

The literature surrounding the use of therapeutic outlets specifically for war veterans is incomplete. While there is literature supporting the overwhelming presence of PTSD in military personnel^{9,29,36} and, separately, the use of alternative methods to alleviate symptoms after experiencing trauma^{18,21,30,38,48}, few academic sources tie the two together. It seems as though the veteran desire to pursue alternative treatment was revealed³⁰ but not much has been done, institutionally, with the information. This is compounded by the shift towards evidence-based practice seen within the medical field, which is why improving this area of research is of growing importance.

Evidence has supported the notion that adverse side effects of prescription medications used to treat PTSD decreases patient satisfaction and can deter them from desiring these drugs⁵. The standard narrative surrounding military personnel says that soldiers should exhibit an exceptionally fit mind and body^{23,24,25,26,40,44}. Soldiers are trained to be excellent in many ways, both as a team and as individuals. They're encouraged to be high achievers, alert, and persistently trying to self-improve^{23,24,25,26,40,44,48}. These high expectations leave little room for the perceived 'weakness', or deviation from the normative standard of 'fitness', that can be associated with the side effects of prescription medications. This perceived weakness can result from not meeting physical fitness standards, relying on medications to complete tasks, or being mentally foggy.

There has been a recent emergence of academic support for complementary and alternative medicine within the trauma victim population^{18,21,30,38,48}, including veterans. However, this literature tends to apply limitations to types of complementary and alternative medicine and does not include adequate input from veterans, in either quality or quantity. Furthermore, it only includes alternatives that lie more within the clinical setting, such as CBT and receptive transcranial magnetic stimulation (rTMS)^{18,48,51}, which I do not believe to be conclusive of the outlets that the veteran population is pursuing. For these reasons, research surrounding the broader concept of therapeutic outlets and veterans should be expanded. Physicians, medical institutions, and patients would each benefit from a more robust pool of research. Physicians would be able to provide more treatment options. Medical institutions could cut costs where

funds are allocated to undesirable treatments. Patients could potentially see improved health outcomes and higher levels of satisfaction with care.

Health care in America has experienced a resurgence of neoliberalism over the last several years, as competition has been promoted among the private sector. The goals that neoliberals strive for are increased consumer choices and lower prices. The nuances of the entanglement of neoliberalism and health care are complex, as social construction, choice perception, and political limitations and pressures become involved. However, it is important to discuss how this concept plays into the veteran pursuit of therapeutic outlets. Institutional pressure, limited health care coverage, and stigma all act as forces against free and complete consumer choice. Limiting access to therapeutic outlets also obstructs a large market space by increasing consumption of pharmaceuticals and silencing the demand for alternative medicine. According to neoliberal trends, if evidence is proving therapeutic outlets are associated with positive health outcomes and are desired by consumers then a space should be provided for them to occupy within the market.

Biopower is also a particularly interesting theory to apply to the concept of veterans and therapeutic outlets. Originally coined by Michel Foucault, biopower is concerned with institutions and social norms influencing what people do to their bodies and how. If every form of rehabilitation, prescription medication and therapeutic outlets alike, were available to trauma victims, which one, or combination, would they freely choose? We must accurately assess how medical institutions, the Military, and social norms among veterans and soldiers influence their decision-making process while pursuing mental rehabilitation. The contrary to biopower is patient autonomy. Informed and autonomous decisions have only been a standardized part of medical practice for several decades, yet nowadays, it is a vital part of both legislature and day-to-day practice. Patients should be able to make liberated and informed medical decisions while pursuing treatment. Biopower can be exerted rather subconsciously, especially in the case of social norms and uncomprehensive economic frameworks which limit health care coverage. Thus, while it is critical to clinically assess biological markers and neurobiology, it is important to simultaneously ensure that various forms of biopower are not influencing how, when, or what type of

treatment a patient seeks. Ideally, traditional Western medicine would work alongside the therapeutic outlet sector to identify the most effective forms of therapy for patients, while promoting patient autonomy in the process.

Occupational and art therapy literature has made positive contributions to this area of research^{32,34,47}. However, a greater level of intersectionality among other disciplines and addressing barriers to care are still needed for veterans to reap the full benefits of therapeutic outlets. Additionally, increased research, with larger sample sizes and more robust methodology, is needed to confirm the trends that these studies are showing. The treatment option of therapeutic outlets seems to have a viable place alongside prescription medication. The process of its inclusion should be done safely, carefully, and under the supervision of a trained health care professional. It is important to understand that these two forms of treatment are not mutually exclusive. In fact, I predict they would work best together. We must expand our research in this area to understand how we can create the space for these two forms of treatment to coexist.

If the veteran voice does, in fact, continually prove to desire an incorporation of therapeutic outlets into treatment plans for PTSD, as I predict it will, there must be serious steps taken in modifying the current health care standard to incorporate these activities. This endeavor could take many forms, so research must be done on how to most appropriately implement therapeutic outlets. Ultimately, if we are able to shift our standard of care to a more holistic and comprehensive form of rehabilitation, I predict this will result in positive health outcomes for veterans. Full implementation of the inclusion of therapeutic outlets into treatment for veterans will require policy changes in health care coverage and institutional changes in medical facilities. Additionally, and most importantly, the veteran voice should be included in this research, to promote autonomy among this population. Improved inclusion of therapeutic outlets into the mental rehabilitation journey of veterans has the potential to offer significant improvements to life quality. Steps should be taken to improve research in this field in order to offer patients the greatest standard of care health care can offer

Conclusion

Literature is abundant on both PTSD in military veterans and the general topic of therapeutic outlets. However, literature is inadequate on the efficiency of and contentment with treatments available for PTSD and therapeutic outlets for veterans specifically. Research needs to be done in these two areas. War culture is always changing, which means veteran and soldier needs are also continually evolving. If we intend to continue supporting military endeavors, we must fully support their mental health care needs simultaneously. In order to do this, we must increase the knowledge we have on what these women and men desire and how we can facilitate constructive changes to the standard of care. In moving forwards with research, incorporation of the veteran voice will be imperative. Another essential future direction is identifying ways we can begin to combine traditional medical care with therapeutic outlets.

Overall, significant progress has been made in addressing some of the issues faced by veterans as they seek mental health treatment for PTSD. However, there are still areas that need improvement. Barriers to accessing all types of care including stigma, fear, lack of health care coverage, and institutional pressures should be addressed with concrete action. Alongside this action, needs to be an increase in literature and research of therapeutic outlets and their implementation as treatment for PTSD in veterans. We should work to create a space for therapeutic outlets in the health care market and patient treatment options. We should work towards allowing traditional clinical medicine and alternative treatments to safely coexist. Lastly, we must uphold our integrity as health care personnel and researchers in medicine by promoting patient autonomy, free will of choice, and providing educated facts about all treatment types.

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