Improving Behavioral Health Care Access and Treatment Options for Veterans with Co-Occurring Behavioral Health Problems

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Veterans are at greater risk of behavioral health problems than the civilian population, with posttraumatic stress disorder (PTSD), depression, and substance use disorders (SUDs) among the most common. Co-occurrence of SUDs with other behavioral health disorders is also high among veterans.

Veterans continue to face barriers to accessing high-quality behavioral health care. In addition to logistical barriers and stigma, the co-occurrence of disorders can prevent veterans from getting the care they need. Specifically, traditional treatment models for those with co-occurring behavioral health problems have required patients to seek treatment for substance use before they qualify for targeted, empirically based treatments for PTSD and depression, because heavy substance use can hinder the progress and completion of such treatments. However, veterans may be using substances to manage symptoms of PTSD and depression.

Treating substance use problems concurrently with PTSD or depression as part of an integrated approach to care is one promising route to ensuring that veterans receive the care they need without delay. This brief working paper reviews the research on co-occurring behavioral health problems and treatments among veterans and outlines several recommendations for improving veterans’ access and expanding their treatment options.

RAND Social and Economic Well-Being is a division of the RAND Corporation that seeks to actively improve the health and social and economic well-being of populations and communities throughout the world. This research was conducted in the Social and Behavioral Policy Program within RAND Social and Economic Well-Being. The program focuses on such topics as risk factors and prevention programs, social safety net programs and other social supports, poverty, aging, disability, child and youth health and well-being, and quality of life, as well as other policy concerns that are influenced by social and behavioral actions and systems that affect well-being. For more information, email sbp@rand.org.
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# Abbreviations

<table>
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<th>Abbreviation</th>
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<tr>
<td>CUD</td>
<td>cannabis use disorder</td>
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<td>DoD</td>
<td>U.S. Department of Defense</td>
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<td>MDD</td>
<td>major depressive disorder</td>
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<td>OEF</td>
<td>Operation Enduring Freedom</td>
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<td>OIF</td>
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<td>PTSD</td>
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<td>SUD</td>
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<td>VA</td>
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<td>VHA</td>
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Goals and Motivation

Behavioral health problems are common in military-affiliated populations, including veteran, active-duty service members, and members of the reserve components. Many in the military and veteran population experience posttraumatic stress disorder (PTSD), depression, and substance use disorders (SUDs) or a combination of the three. Medical professionals have made strides in recent years to treat these health concerns. However, there are still significant barriers to ensuring that all veterans and service members who need behavioral health care receive it.

This brief report reviews promising treatments for behavioral health problems that have been used with veterans and other military populations and remaining barriers that these groups face in seeking and receiving evidence-based treatment. It concludes with several recommendations for improving veterans’ access to high-quality behavioral health care and expanding their treatment options.

Although we focus primarily on veterans, the insights in this report should help inform care for all who currently wear the uniform.

Prevalence of Posttraumatic Stress Disorder, Depression, and Substance Use Disorders

Research demonstrates that veterans are at risk for behavioral health problems, with PTSD, depression, and SUDs among the most common (Trivedi et al., 2015; Ramchand et al., 2015). Around 8 million Americans live with PTSD, but it is an especially acute problem among U.S. veterans (Reisman, 2016). One major study of veterans who served during Operation Enduring Freedom (OEF) in Afghanistan and Operation Iraqi Freedom (OIF) found that 13.5 percent of both deployed and nondeployed veterans suffered from PTSD (Dursa et al., 2014); other studies have found rates as high as 30 percent (Lapierre, Schwegler, and LaBauve, 2007). Rates of PTSD diagnoses among veterans who deployed to those conflicts have reached as high as 23 percent (Fulton et al., 2015). In addition, non-U.S. veterans who served in Iraq and Afghanistan have reported higher rates of PTSD than civilian populations (Dworkin et al., 2018; Fear, Jones, et al., 2010; Fear et al., 2007; Rhead et al., 2019).

Depression is also common among veterans who have returned from the conflicts in Iraq and Afghanistan, with estimates ranging from 13 to 15 percent (Seal et al., 2007; Stecker et al., 2010). Like PTSD, depression is linked to higher rates of suicide, especially for those with a co-occurring SUD (Bullman and Kang, 1996; Price et al., 2004).
The U.S. Department of Veterans Affairs (VA) has reported that 24 percent of OEF/OIF veterans who sought care from the Veterans Health Administration (VHA) had some kind of SUD (VHA, 2008), such as alcohol use disorder, cannabis use disorder, opioid use disorder, or dependence on other substances, including tobacco/nicotine and cocaine.

High-risk alcohol use is prevalent among veterans, with yearly estimates ranging from 12 percent to 40 percent (Calhoun et al., 2008; Eisen et al., 2012; Hawkins et al., 2010; Schell and Marshall, 2008; Seal et al., 2007; Seal et al., 2009). A large study of veterans who received treatment through VHA found that approximately 11 percent of first-time patients met criteria for a SUD diagnosis (Seal et al., 2007), with alcohol use disorder being the most common.

Cannabis is the most widely used psychoactive drug among those who have served in the U.S. armed forces, according to the Substance Abuse and Mental Health Services Administration (2005), and rates of cannabis use disorder among veterans have more than doubled since 2002 (Bonn-Miller, Harris, and Trafton, 2012). Recent research indicates that cannabis use disorder has been significantly underdiagnosed in VHA (Bonn-Miller, Bucossi, and Trafton, 2012), suggesting that the prevalence of cannabis use and cannabis use disorder among veterans may be higher than currently reported.

Rates of opioid overdose mortality in the general U.S. population are similar for the subpopulation of veterans (Bohnert et al., 2014), a cause for concern.

In general, SUD diagnoses are more common among men than women, with those who are under age 25 and unmarried facing the greatest risk (Teeters et al., 2017). It may be that the high concentration of young, unmarried men in the military helps explain why SUD diagnosis rates are higher in this population than in U.S. population overall. In addition, environmental stressors associated with military service have been linked
to SUDs, such as deployment, combat exposure, and postdeployment/civilian reintegration challenges (Seal et al., 2007; Stahre et al., 2009).

Co-Occurring Behavioral Health Problems

Veterans are also at risk for co-occurring behavioral health problems. The presence of two or more behavioral health problems can exacerbate the consequences of each individual condition. For example, veterans with PTSD and alcohol use disorder are more likely to relapse and use alcohol and are at greater risk of suicidality, homelessness, and medical, legal, and psychosocial problems than individuals diagnosed with either disorder alone (Calabrese et al., 2011; Driessen et al., 2008; Tate et al., 2007). Studies have found that PTSD often co-occurs with depression (48–60 percent across studies) and SUDs (34–88 percent) (Cerdá et al., 2014; Polusny et al., 2011; Stahre et al., 2009). Co-occurrence of alcohol use disorder and PTSD is similarly common among OEF/OIF veterans, with rates ranging from 16 to 69 percent (McDevitt-Murphy et al., 2010; Seal et al., 2011; Seal et al., 2010).

Veterans with PTSD and alcohol use disorder report poorer functioning than those with single disorders, including poor relationships, other substance use disorders, and physical health complaints (Carter, Capone, and Short, 2011; Koenen et al., 2008; Zatzick et al., 1997).

PTSD is the most common co-occurring psychiatric disorder among veterans with cannabis use disorder. Almost 30 percent of VA patients with cannabis use disorder also have a diagnosis of PTSD (Bonn-Miller, Harris and Trafton, 2012). Co-occurrence of problematic cannabis use and PTSD is associated with greater PTSD symptom severity, a decreased likelihood of cannabis cessation, worse clinical outcomes, and higher use of emergency services (Bonn-Miller et al., 2015; Bonn-Miller, Vujanovic and Drescher, 2011; Grant, Pedersen, and Neighbors, 2016; Ouimette, Finney, and Moos, 1999; Saladin et al., 1995; Tate et al., 2004; Watkins et al., 2001).

Another risk factor is that mental health diagnoses (i.e., a non-substance use disorder such as PTSD or depression) increase the likelihood of receiving an opioid prescription, which can lead to substance misuse. Veterans with a diagnosis of PTSD (17.8 percent) or another mental health disorder (11.7 percent) were more likely to receive an opioid prescription than those without a mental health diagnosis (6.5 percent) (Seal et al., 2012).
Barriers to Care

Despite high rates of behavioral health problems and co-occurrence among veterans, not all receive adequate care for such problems. *Invisible Wounds of War*, a 2008 report by the RAND Corporation, presented results from a large population-based survey of individuals deployed as part of OEF/OIF. Only 30 percent of those with probable PTSD or major depression had received minimally adequate psychotherapy, and just 22 percent had received a minimally adequate course of pharmacotherapy (Tanielian and Jaycox, 2008). Similarly, in a 2004 study of U.S. infantry units, only 38–45 percent of those who met screening criteria for a mental health disorder indicated an interest in receiving help, and only 23–40 percent reported receiving professional help in the previous year (Hoge et al., 2004b). More recently, in a RAND study of veterans age 19–34 who received care either through VA or from a non-VA provider, about one-third of those who screened positive for depression, anxiety, PTSD, or hazardous cannabis use reported receiving minimally adequate care in the previous year. The same was true for about one-fifth of those who screened positive for hazardous alcohol use (Pedersen, Marshall, and Kurz, 2017).

Veterans may not be receiving needed care for multiple reasons, such as perceived stigma (e.g., belief that colleagues would respect them less), fear of repercussions or perceived career harms (e.g., fear their career will not progress if they seek treatment), logistical barriers (e.g., high costs, not knowing where to get help), and a belief that they can handle it on their own or that available treatments are not effective (DeViva et al., 2015; Fox, Meyer, and Vogt, 2015; Garcia et al., 2014; Hoge et al., 2004a; Pietrzak et al., 2009; Schell and Marshall, 2008).

Stigma

Fear of stigma is a considerable barrier to seeking help for behavioral health problems (Mason et al., 2013; Substance Abuse and Mental Health Services Administration, 2006). A 2014 RAND report on mental health stigma in the military concluded that, despite consistent efforts to reduce stigma and minimize barriers to care, perceptions of stigma continue to prevent service members from accessing mental health care (Acosta et al., 2014). Research has found that approximately 65 percent of service members who met criteria for behavioral health problems perceived stigma (Hoge et al., 2004b). A study of four U.S. combat infantry units (three Army and one Marine Corps), also investigated barriers to accessing mental health care. The authors found that those whose responses met screening criteria for a mental health disorder were twice as likely to report concerns about
stigma and other barriers to accessing and receiving mental health services compared with those without a mental health disorder (Hoge et al., 2004b).

Even after separation from the military, stigma poses a challenge to receiving care. Research suggests that the veterans who are most in need of care may be disproportionately affected by a fear of stigma. For example, in OEF/OIF veteran populations, researchers found an association between more-severe PTSD symptoms and greater perceived stigma and barriers to care (Ouimette et al., 2011a). However, fear of stigma among veterans appears to be misplaced. RAND research suggests that although young-adult veterans fear public stigma associated with treatment seeking, these veterans themselves do not judge fellow veterans negatively for seeking treatment (Kulesza et al., 2015). Estimates of perceived stigma vary across studies, depending on how stigma is defined (Sharp et al., 2015), but this clearly represents an important barrier to care for both service members and veterans.

**Fear of Repercussions or Career Harm**

Survey respondents in RAND’s *Invisible Wounds of War* study were most likely to regard concerns about confidentiality and discrimination as key barriers to seeking treatment. More than 40 percent believed that seeking care could harm one’s career and make it difficult to obtain a security clearance (Schell and Marshall, 2008). Such concerns were common among service members in the reserve components as well. In one study of National Guard soldiers who met screening criteria for a mental health disorder, the most frequently cited barrier to treatment was fear that mental health care would appear on their military service record (45 percent reported this barrier) (Gorman et al., 2011). Concerns about confidentiality are not limited to current service members: Veterans with careers in the national security sector may also fear repercussions from seeking treatment for a condition that could compromise their eligibility for a security clearance or opportunities for career advancement (Cheney et al., 2018).

**Substance Misuse**

Heavy and problematic use of alcohol and other drugs is a major barrier to care receipt among the general population (Priester et al., 2016). In studies of OEF/OIF veterans, those who reported alcohol misuse also reported low rates of substance use treatment engagement. Specifically, only 3 percent of those who met criteria for alcohol misuse received substance use treatment (Burnett-Zeigler et al., 2011; Erbes et al., 2007). OEF/OIF veterans receive non-alcohol substance use treatment at similarly low rates. In one large sample of veterans, only 32 percent who met criteria for problematic cannabis use reported receiving any care for mental health or substance use problems, either through VA or another provider, in the previous year (Pedersen, Marshall and Kurz, 2017). Focus groups and interviews with active-duty service members provide some insight into why those with substance misuse may avoid treatment. For example, interviews with Army personnel suggest that resistance to seeking care for a substance
use disorder stems from perceived negative attitudes among both commanding officers and peers, which can exacerbate fears of career repercussions and stigma (Gibbs et al., 2011).

Avoiding care can also exacerbate symptoms to a point that they become difficult to treat. Many veterans believe that they can handle their alcohol or drug use problems on their own (Britt et al., 2011; Stecker et al., 2007). Veterans with co-occurring PTSD and SUD are particularly resistant to seeking care, especially those for whom avoidance is a symptom of PTSD, leading them to use substances to cope with their PTSD symptoms (Boden et al., 2013; Elliott et al., 2015; Grant, Pedersen, and Neighbors, 2016; Jakupcak et al., 2010; Kehle et al., 2012; Ouimette et al., 2011b). Veterans who use alcohol or other substances to self-medicate may also be hesitant to seek care for PTSD because many facilities demand abstinence from substances before treatment can begin (Bernhardt, 2009), and giving up alcohol and other substances could intensify PTSD symptoms. Treatment centers may not always be equipped to provide care for both conditions.

**Logistical Barriers**

For veterans, logistical barriers to care include eligibility restrictions and cost concerns; long or inconvenient travel distances to the nearest care centers; difficulty getting appointments that do not conflict with work, child care, or other responsibilities; and long wait times and care site workforce capacity issues (Garcia et al., 2014; Hoge et al., 2004a; Pietrzak et al., 2009; Schell and Marshall, 2008). Some veterans struggle to access the care they need because of the distance between facilities—for example, if they receive medical care in one location and behavioral health care in another—or because they live in rural areas or other places that lack of services.

Integrating primary care and behavioral health care seems to increase the number of veterans who ultimately seek treatment after a positive screening for a behavioral health problem. In April 2007, an integrated, co-located primary care and mental health care clinic was established at a VA medical center specifically to treat OEF and OIF veterans. A study published the following year reported that the clinic had seen 42 veterans and that 35 (83 percent) were seen by a mental health specialist immediately after their primary care visit (Seal et al., 2008). The results suggested that an integrated care model could help overcome barriers to access and encourage follow-up treatment among those who are diagnosed with behavioral health issues. The study’s authors also recommended expanding telephone and internet-based mental health treatment options to further facilitate access to care among OIF and OEF veterans.

Overall, the research suggests that all veterans may experience some barriers to care, but those who need behavioral health support the most may be the least likely to seek it out.
Clinical Practice Guidelines for Veterans with Co-Occurring Behavioral Health Problems

Overcoming barriers to treatment is critical to improving outcomes, but it is also important to ensure that military and veteran populations have access to the most effective treatments for behavioral health problems. Indeed, recent efforts to identify new treatment options for veterans have focused on developing brief interventions that are easily accessible (often available online). We reviewed the research on in-person and online-based/self-help treatments for veterans with co-occurring behavioral health problems. We begin with an overview of the current VA/DoD clinical practice guidelines for treating the behavioral health problems that are most common among veterans: PTSD, depression, and SUDs. We then explore potential treatments for co-occurring disorders that show promise for veteran populations, including sequential and concurrent care, abstinence and harm-reduction philosophies, pharmacological- and behavioral-based approaches, and modalities of care (online versus in-person).

Although clinical practice guidelines and recommendations are offered by several organizations, such as the American Psychological Association, the American Psychiatric Association, the Agency for Healthcare Research and Quality, and the Institute of Medicine, VA/DoD clinical practice guidelines are considered a first stop for treatment recommendations for veterans.

PTSD

The VA/DoD clinical practice guideline for the management of PTSD (2017) recommends a range of therapies. Specifically, it recommends individual trauma-focused psychotherapy over pharmacologic (i.e., medication-assisted) therapies and other, non-pharmacologic interventions for the primary treatment of PTSD. Ideally, such trauma-focused psychotherapy will be individual and manualized (that is, the treatment will follow an established protocol), with a primary component of exposure or cognitive restructuring. Examples include prolonged exposure therapy, cognitive processing therapy, eye movement desensitization and reprocessing, specific cognitive behavioral therapies for PTSD, brief eclectic psychotherapy, and narrative exposure therapy. The American Psychological Association (2017) also recommends many of these treatments, and there is much empirical evidence supporting the use of prolonged exposure and cognitive processing therapies, specifically, with general and veteran populations (Watkins, Sprang, and Rothbaum, 2018; Steenkamp et al., 2015).

When individual trauma-focused psychotherapy is not readily available or not patient-preferred, the guideline recommends pharmacotherapy or individual non–trauma-focused psychotherapy, noting that there is insufficient evidence to recommend one over the other. If non–trauma-focused therapies are needed, the guideline suggests stress inoculation training, present-centered therapy, or interpersonal psychotherapy. When the alternative is no treatment, it recommends manualized group therapy or internet-based cognitive behavioral therapy with
feedback provided by a qualified facilitator. There is an emerging evidence base for the use of pharmacotherapy in treating PTSD (Puetz, Youngstedt, and Herring, 2015), and the VA/DoD clinical practice guideline recommends such medications as Sertraline, Paroxetine, Fluoxetine, and Venlafaxine for this purpose.

The guideline states that there is insufficient evidence to recommend certain other psychotherapies for treating PTSD, such as dialectical behavioral therapy, skills training in affect and interpersonal regulation, acceptance and commitment therapy, Seeking Safety, and supportive counseling. Other treatments that are not recommended include individual components of manualized psychotherapy protocols instead of or in addition to the full therapy protocol, trauma-focused or non–trauma-focused couples therapy for the primary treatment of PTSD, augmentation with pharmacotherapy for those who partially or do not respond to psychotherapy, and augmentation with psychotherapy for those who partially or do not respond to pharmacotherapy. The guideline also cautions against starting patients with PTSD on combination pharmacotherapy and psychotherapy as an initial treatment route, as well as the use of somatic therapies, such as repetitive transcranial magnetic stimulation, electroconvulsive therapy, hyperbaric oxygen therapy, stellate ganglion block, or vagal nerve stimulation.

**Depression**

As a first-line treatment for uncomplicated mild to moderate major depressive disorder (MDD), the VA/DoD clinical practice guideline for the management of MDD (2016) recommends offering either evidence-based psychotherapy or evidence-based pharmacotherapy. Such treatments include acceptance and commitment therapy, behavioral therapy/behavioral activation, cognitive behavioral therapy, interpersonal therapy, mindfulness-based cognitive therapy, and problem-solving therapy. Recommended pharmacotherapies include selective serotonin reuptake inhibitors (except fluvoxamine), serotonin-norepinephrine reuptake inhibitors, mirtazapine, and bupropion. Treatment decisions should be based on patient preference, safety/side-effect profile, history of prior response to a particular medication, family history of response to a medication, concurrent medical illnesses, concurrently prescribed medications, the cost of the medication, and provider training/competence (Puetz, Youngstedt, and Herring, 2015; Hundt et al., 2014).

Although there are evidence-based approaches to treating depression, the current research does not yet support the use of a particular evidence-based psychotherapy or pharmacotherapy over another. For patients who have had a partial or no response to a single initial pharmacotherapy after a minimum of four to six weeks, the guideline recommends switching to another therapy (medication or psychotherapy) or augmenting the first pharmacotherapy treatment approach with a second medication or psychotherapy. For patients who select psychotherapy as a treatment option, the guideline suggests offering individual or group-based psychotherapy, depending on patient preferences. For patients with mild to moderate MDD, the guideline recommends supplementing the initial treatment with computer-based cognitive
behavioral therapy or, depending on patient preferences, offering this type of therapy as a first-line treatment.

**Substance Use Disorders**

The VA/DoD clinical practice guideline for the management of SUDs (2015) recommends a range of both pharmacotherapy and behavioral interventions, citing strong evidence for the medications acamprosate, disulfiram, naltrexone, and topiramate and for such psychosocial interventions as behavioral couples therapy, cognitive behavioral therapy, the community reinforcement approach, motivational enhancement therapy, and 12-step facilitation. For opioid use disorder the guideline recommend buprenorphine or a combination of naloxone and methadone. The guideline also provide recommendations for addiction-focused medication management, including monitoring adherence, response to treatment, and adverse effects; educating patients about the health consequences of substance use and possible treatments; encouraging patients to abstain from illicit opioids and other addictive substances; encouraging referrals to community support for recovery and patients’ subsequent attendance; and encouraging patients to make lifestyle changes that support recovery. These treatment options have a strong evidence base in both the general population and veterans (Teeters et al., 2017).

For substance use that may not yet meet diagnostic criteria for SUD treatment, the first-line treatment is known as Screening, Brief Intervention, and Referral to Treatment (SBIRT) (Babor et al., 2007). This approach is being increasingly adopted for treating military populations (Ahmadi and Green, 2011; Harris and Yu, 2019; Holt et al., 2017).

Brief interventions that focus on discussions of alcohol-related risks and physician recommendations to abstain from alcohol are also promising (Dworkin et al., 2018). This approach has been adopted in primary care and mental health clinics where patients who do not respond to brief behavior change intervention alone can be referred to specialty behavioral health clinics for more-intensive pharmacological or psychosocial treatment.

**Treatment Options for Veterans with Co-Occurring Behavioral Health Disorders**

Because substance use disorders often co-occur with other behavioral health problems, such as PTSD and depression, some treatments aim to address these multiple issues at once. Historically, it was thought that SUDs needed to be managed prior to enrollment in mental health treatment, presumably because the substance use could be an impediment to mental health care success. However, as discussed, this approach poses a major barrier for veterans who would otherwise seek care (Bernhardt, 2009). For many veterans with PTSD or depression, using substances is a way of managing PTSD symptoms, such as by using alcohol to numb out feelings or to help one fall asleep. Both abstaining from substance use and avoiding treatment can
exacerbate these co-occurring disorder symptoms, and research has shown that veterans who meet SUD criteria receive treatment at low rates.

It is becoming increasingly common to recommend treating substance use and mental health disorders concurrently (Management of Substance Use Disorders Working Group, 2009; Ouimette, Brown, and Najavits, 1998), and this recommendation is echoed in the VA/DoD clinical practice guidelines for PTSD and for SUD (2015, 2017). For example, according to the clinical practice guideline for PTSD, the presence of a co-occurring disorder should not prevent patients from receiving other recommended treatments for PTSD. The guidelines for SUD similarly advise that patients with SUDs and a co-occurring behavioral health disorder should be treated according to the recommendations for co-occurring disorder.

The move from requiring abstinence from substances prior to mental health treatment represents an important shift in care for veterans, given the prevalence of co-occurring behavioral health problems and the interactions between disorders. Despite this new focus, however, there are few empirically supported approaches in the literature that have been examined in veteran or military populations. Ideally, there would be more randomized controlled trials, in which a sample of veterans or military personnel is assigned to either a specific intervention approach or a control group so that differences in outcomes between the two groups, such as PTSD symptoms or substance use behaviors, can be assessed over time. In addition, most studies focus on co-occurring PTSD and alcohol use disorder. Although this combination of behavioral disorders is prevalent, there is little research targeting other mental health disorders and other SUDs (Kay-Lambkin et al., 2009; Baker et al., 2010). Next, we take a closer look at several available intervention approaches for co-occurring disorders.

**Prolonged Exposure**

A recent randomized controlled trial evaluated the efficacy of an exposure therapy treatment program for veterans with PTSD and alcohol use disorder (Norman et al., 2019). The treatment, known as prolonged exposure, is an evidence-based to treating PTSD with empirical support for use with veteran and military populations. Prolonged exposure helps patients slowly expose themselves to traumatic memories over time until the memories no longer cause significant distress. It has been adopted by VA, along with cognitive processing therapy, as a first-line treatments for veterans with PTSD (Karlin et al., 2010). Pilot findings from a case study with an OEF/OIF veteran with PTSD and alcohol use disorder have suggested that prolonged exposure could be a promising approach to reducing both PTSD symptoms and alcohol use (Back et al., 2012).

In the 2019 randomized controlled trial study, researchers compared the efficacy of integrated (targeting both PTSD and alcohol use), prolonged exposure therapy with present-centered integrated coping skills therapy (the commonly available Seeking Safety approach), in reducing PTSD symptoms and alcohol use. Patients with co-occurring PTSD and alcohol use disorder are typically not offered exposure therapy because there is a belief that exposure to
traumatic memories could lead to increased drinking (Becker, Zayfert, and Anderson, 2004). Despite such misgivings, the researchers sought to test whether the therapy could be valuable in treating patients with PTSD and alcohol use disorder. They randomly assigned 119 veterans with these two conditions to receive either the prolonged exposure or present-centered integrated coping skills therapy. Veterans in both groups saw decreases in PTSD symptoms over six months of follow-up (Norman et al., 2019). However, those in the prolonged exposure group experienced a significantly greater decrease in symptoms. The study provides initial evidence that exposure therapy is more efficacious in treating PTSD in veterans with co-occurring PTSD and alcohol use disorder than present-centered integrated coping skills therapy, a more commonly available integrated treatment that does not include exposure. However, as is common in exposure-based interventions with veterans (Roberts et al., 2015), treatment completion was low: Only 20 of the 63 veterans assigned to the prolonged exposure group received all 12 sessions.

Seeking Safety

The veterans in the 2019 study who were not assigned to the prolonged exposure group were assigned to receive present-centered integrated coping skills therapy—specifically, the Seeking Safety approach (Norman et al., 2019). Although the study found that prolonged exposure may have greater efficacy for veterans with co-occurring PTSD and alcohol use disorder, there is evidence of efficacy for present-centered integrated coping skills therapy in treating patients with co-occurring PTSD and SUD, and, indeed veterans assigned to this group saw some improvement in their PTSD symptoms.

Seeking Safety consists of 25 coping skills to help patients ensure their own safety, ask for help, set boundaries, develop healthy relationships, cope with triggers, and make positive life choices. The program has shown promising results, but it has been the subject of only a few small randomized controlled trials (Desai et al., 2008; Najavits et al., 2016; Norman et al., 2010a). For example, a pilot study that included 18 veterans found that those who participated in Seeking Safety saw a decrease in their PTSD symptoms and reported increased quality of life (Cook et al., 2006). In another small study with 14 male OEF/OIF veterans, Seeking Safety helped reduce alcohol use and PTSD and depression symptoms to a clinically significant degree for some participants, even when these veterans received less than half of the full course of treatment (Norman et al., 2010b).

In these studies, several features of Seeking Safety were particularly helpful, including the case management component, which helped patients engage in further mental health and SUD care. Using PTSD as an entry point to this additional treatment and emphasizing community
resources appeared to contribute to this outcome. These features may smooth the process of continuing care for veterans and increase the likelihood of ongoing treatment.

Although Seeking Safety has showed promise in some studies, others have failed to replicate these results. Indeed, a randomized controlled trial found no added benefit in treating male veterans with co-occurring PTSD and alcohol use disorder (Boden et al., 2012). Because few tests of Seeking Safety have used randomized controlled trials and findings from other types of studies are mixed (Roberts et al., 2016), it is not currently recommended for treating co-occurring PTSD and alcohol use disorder in VA/DoD clinical practice guidelines.

Other Behavioral Treatments

Cognitive processing therapy is a treatment for PTSD that is recommended by the VA/DoD clinical practice guidelines and has been adopted by VA. It has yet to be examined in a randomized clinical trial, but it showed promise in a case study of veterans in promoting long-term reductions in PTSD symptoms and alcohol-related problems (McCarthy and Petrakis, 2011). Another study found that veterans at one VA in the midwestern U.S. that were diagnosed with alcohol use disorder fared no better or worse than veterans without such documented alcohol use disorder on number of sessions completed or reported declines in PTSD and depression symptoms over time (Kaysen et al., 2014).

Treatments that center on couples have also shown promise for treating co-occurring PTSD and alcohol use disorder. Couples treatment for alcohol use disorder and PTSD is a 15-session manualized therapy that integrates behavioral couples therapy for alcohol use disorder with cognitive conjoint therapy for PTSD, a psychotherapy approach that centers on building healthy relationships as a way of managing PTSD symptoms (Schumm et al., 2015). In an uncontrolled trial, nine male veterans and their female partners completed the program. Eight of the veterans reported reductions in PTSD symptoms, and most also reported reductions in the percentage of days of heavy drinking. Another couples therapy, called Project VALOR, or “veterans and loved ones readjusting,” also pairs PTSD and alcohol misuse treatment. To date, the approach has been evaluated only through case studies, but it showed success. Veterans in each of the two studies that have been conducted greatly reduced their alcohol use, and their PTSD symptoms substantially decreased over the course of treatment (McDevitt-Murphy, 2011).

Pharmacotherapy

Although there have been randomized controlled trials of pharmacological interventions for co-occurring behavioral health disorders in veterans, the findings are mixed (Dworkin et al., 2018; Norman et al., 2012). Some studies have shown effects on one disorder but not on the other. For example, two randomized controlled trials with small samples of veterans with PTSD and alcohol use disorder found reductions in drinking behavior when patients were prescribed topiramate or prazosin (Batki et al., 2014; Simpson et al., 2015). However, they failed to find reductions in PTSD symptoms. Another randomized controlled trial of prazosin with 96 veterans
with PTSD and alcohol use disorder did not find treatment effects for either PTSD symptoms or alcohol use (Petrakis et al., 2016).

Other drugs have shown some promise for treating both drinking and PTSD symptoms, including desipramine, paroxetine, and N-acetylcysteine (Petrakis et al., 2012; Back et al., 2016). Combining behavioral health treatments and pharmacotherapy has also shown promise for veterans with higher levels of PTSD symptom severity and alcohol use disorder who received prolonged exposure and naltrexone (Foa et al., 2013; Zandberg et al., 2016).

**Online-Based Treatments**

Online-based treatments can reach a much wider target population than treatments provided in clinical settings and are designed to overcome barriers to care. There is promising evidence of the applicability of such approaches to veteran populations, especially given veterans’ resistance to pursuing care. Veterans who are unlikely to seek care and more likely to drop out from long courses of treatment when they do get care may benefit from a shorter and easily accessible intervention delivered over the internet. However, in a recent literature review of brief online alcohol interventions conducted by VA, researchers concluded that although the effects were promising in the short term, but there was not strong evidence that the effects of these interventions lasted longer than six months.

Few studies of online interventions have specifically targeted veterans or military populations or co-occurring disorders. In one study of 167 veterans who screened positive for alcohol misuse during a routine primary care visit, researchers developed and tested the efficacy of a complementary, web-delivered approach to supplement treatment as usual in primary care settings (Cucciare et al., 2013). They found that treatment as usual with and without the online intervention led to significant reductions in alcohol quantity and frequency of alcohol-related problems at six-month follow-up. Notably, however, they did not compare the value of the brief alcohol intervention with no treatment, which is the alternative for many veterans who face barriers to care. Primary care clinics may be ideal settings to offer brief interventions to veterans, particularly those may not have pursued mental health care at specialty clinics.

Outreach and intervention efforts via social media have been shown to attract populations at risk for behavioral health problems, including veterans (Pedersen and Kurz, 2016; Pedersen, 2017; Pedersen et al., 2015). RAND researchers used a personalized normative feedback approach to create a brief online intervention to address alcohol misuse among veterans (Pedersen et al., 2017; Pedersen, Marshall, and Schell, 2016). The approach challenges
misperceptions of peer behavior and presents individuals with their misperceptions of a group (e.g., other male veterans), alongside the group’s actual drinking patterns, which can be compared with one’s own drinking behavior. Immediately after the intervention, the treatment group reported greater reductions in their perceptions of peer drinking and intention to drink over the next month compared with control group participants. After one month, participants in the intervention group had reduced their drinking (and the consequences of drinking) to a significantly greater extent (Pedersen et al., 2017). Another study, in the United Kingdom, found that veterans who used an app to track their drinking ultimately decreased their alcohol consumption over a four-week period (Leightley et al., 2018). The results of both studies suggest that a simple approach that can be easily developed and distributed online can have a substantial impact on public health, especially among veterans.

**Recommendations for Improving Veterans Access and Options for High Quality Behavioral Health Care**

The existing literature highlights four important areas in which further investment by healthcare providers who work with veterans and researchers investigating veteran health and health care could significantly improve veterans’ access and options for high-quality behavioral health care:

1. Decrease barriers to accessing care, and increase the number of co-located medical and behavioral health care facilities;
2. Emphasize integrated care—not just concurrent but complementary treatments—for co-occurring disorders, and reduce the emphasis on abstinence as a requirement for care;
3. Reduce stigma around behavioral health problems among veterans;
4. Dedicate funding to support studies of treatments for co-occurring disorders in military and veteran populations.

**Decrease Barriers to Accessing Care, and Increase the Number of Co-Located Facilities**

One way to decrease barriers to care is to increase the number of co-located facilities, offering a range of health care services in the same location and minimizing the need for patients to venture to various locations to receive care for multiple conditions. Evidence suggests that co-located facilities can improve access to care among civilian populations (Scharf et al., 2014). Veterans who struggle with SUDs and depression, for example, would be able to go to one location to receive care for both. Increasing access to online services could also reduce travel burdens that some veterans face. Online services (including telehealth with live interactions with providers) would allow veterans to receive support and treatment in their own home (internet access permitting). Such approaches could also address fears of stigma by providing more privacy than a visit to a physical health care center. Another way to decrease barriers is to
increase access to care through primary care clinics, where most veterans are initially seen and where SUDs, PTSD, and depression can be assessed.

**Emphasize Integrated Care for Co-Occurring Disorders, and Reduce the Emphasis on Abstinence as a Requirement for Care**

Emphasizing integrated care can increase access to high-quality behavioral health care for veterans. As discussed, many veterans struggle with co-occurring disorders, yet care providers may focus on one condition at a time. Research suggests that treating multiple behavioral health problems at once is not only effective but can also address the unique issues that arise when two behavioral health problems emerge together (for example, PTSD and depression or PTSD and substance misuse). Going forward, behavioral health care for veterans should include treatments that address multiple disorders, with a focus on substance use as needed. Similarly, substance use care should include a focus on mental health to target potential underlying symptoms that lead to heavy and problematic use of substances.

Treatments for mental health issues should not require abstinence for enrollment, which can create a barrier to treatment. Instead, adopting harm-reduction approaches, where movement toward abstinence could be a goal of treatment, would allow veterans to work through substance use and mental health issues as part of an integrated approach to treatment. There is no evidence that such a strategy is harmful (Torchalla, et al., 2012), and providing integrated care will make it more likely that veterans with co-occurring issues will seek out and participate in the long-term treatment that is necessary to improve their health.

**Reduce Stigma Around Behavioral Health Problems**

Efforts should also be made to encourage treatment seeking among veterans who are at risk of behavioral health problems. While research in this area is limited, evidence suggests that campaigns to reduce stigma can be effective at reducing stigmatizing beliefs as well as suicide rates (Collins et al., 2012; Corrigan, 2012; Paykel, Hart and Priest, 1998). A targeted marketing and messaging campaign could pinpoint this population and provide much-needed information about treatment options and how to access resources. Such targeted campaigns could also promote awareness about the connection between SUDs and mental health problems, including how one can exacerbate the other and vice versa (for example, that depression can induce heavy drinking, while heavy drinking can exacerbate depression symptoms). Targeted campaigns could also aim to reduce stigma around substance use and mental health problems by making clear that there will be no negative repercussions for revealing these conditions to providers. Such campaign could be facilitated through the wide network of veteran service organizations, VAs, and through online means (e.g., social media).
Dedicate Funding to Support Studies of Treatments for Co-Occurring Disorders in Military and Veteran Populations

Funding is needed to support the implementation of co-occurring disorder treatment studies in military and veteran populations. Although researchers have demonstrated the prevalence of co-occurring behavioral health issues, further investigation is necessary to move the field forward and identify effective treatments.

Dedicated funding for treatment studies that focus on veterans could reveal new insights related to their behavioral health treatment. These studies should also address co-occurring physical health and medical conditions (e.g., PTSD, SUD, and a missing limb or other combat injury). Studies might also compare various treatment modalities and philosophies, such as harm reduction versus abstinence or medical versus behavioral interventions, to help providers better understand when different approaches are more effective in veteran populations.

Conclusion

Behavioral health problems are prevalent among veterans and in military populations more generally. Indeed, many in the veteran community suffer from PTSD, depression, and SUDs—or a combination of the three. Although medical professionals have made strides in recent years to treat these behavioral health concerns, significant barriers remain to ensuring that all veterans and service members who need care receive it.

This brief working paper reviewed the research on co-occurring behavioral health problems with an emphasis on what is known about the efficacy of treatments in veteran populations. Based on this review, we offered four concrete suggestions for improving veterans’ access to behavioral health care. Implementing these recommendations could significantly reduce barriers to treatment for veterans and for others in military populations.
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