

**Celebration to
 Consolation:**
what drives military substance abuse
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Objectives

- Discuss history of substance use in civilization
- Develop a clear understanding of military demands and beliefs that influence substance abuse
- Recognize how trauma impacts substance abuse
- Treatment options for service members and their family members

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Brief history of


- Fermented grain, fruit juice and honey have been used to make alcohol (ethyl alcohol or ethanol) for thousands of years.
- Fermented beverages existed in early Egyptian civilization, and there is evidence of an early alcoholic drink in China around 7000 B.C. In India, an alcoholic beverage called *sura*, distilled from rice, was in use between 3000 and 2000 B.C.
- The Babylonians worshiped a wine goddess as early as 2700 B.C.(see above picture)
- In Greece, one of the first alcoholic beverages to gain popularity was mead, a fermented drink made from honey and water. Greek literature is full of warnings against excessive drinking.
- Several Native American civilizations developed alcoholic beverages in pre-Columbian times. A variety of fermented beverages from the Andes region of South America were created from corn, grapes or apples, called "chicha."

• *Drugfreeworld.org

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Brief History of alcohol (continued)

- In the sixteenth century, alcohol (called "spirits") was used largely for medicinal purposes. At the beginning of the eighteenth century, the British parliament passed a law encouraging the use of grain for distilling spirits. Cheap spirits flooded the market and reached a peak in the mid-eighteenth century. In Britain, gin consumption reached 18 million gallons and alcoholism became widespread.

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Alcohol vs Water USA Colonial Times



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Colonial Times Alcohol VS. Water

- In the eighteenth century, most people believed that water was bad for their health, and they weren't wrong in thinking this! In London Town, drinking water directly from the South River could make a person sick and vomit. The river water was brackish, meaning it was a mixture of salt and fresh water. Some people tried to dig wells to get water from the ground, but they often dug the wells too close to their privies. Privy, another word for outhouse, is where they had their toilets. The contents of the privy would contaminate the water in the well. When people drank well water they also got very sick. Germs, bacteria, and viruses had not been discovered during most of the 1700s, so people did not understand why they got sick. They just knew that water made them ill. So instead of drinking water, many people drank fermented and brewed beverages like beer, ale, cider, and wine.
- Children drank something called small beer. One of the first steps in brewing beer is to boil the water, which kills the germs and bacteria and makes it safe to drink. This first brewing has alcohol in it. The ingredients were brewed again in a second and then a third batch of beer or ale (this is similar to us using the same tea bag to make a second and then a third cup of tea). The beer produced by this third brewing had almost no alcohol in it—this is the small beer that children would drink.
- On average, an adult drank a gallon (a milk jug) of ale a day. People in colonial times believed alcohol was good for your health and many doctors prescribed and sold alcohol to their patients. Alcohol was consumed at social events, including business meetings, court hearings, and auctions. At funerals, it was expected alcohol would be served—typically in a large pot placed directly on the coffin!

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History of Opioids

- The earliest reference to opium (the “natural” source of opiates) dates back to 3400 B.C., when poppies were cultivated in lower Mesopotamia. The Sumerians called the opium poppy “Hul Gil” (the “Joy Plant”). Around 460-357 B.C., Hippocrates, the “father of medicine,” acknowledged opium’s usefulness as a narcotic. He prescribed drinking the juice of the white poppy mixed with the seed of nettle

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History of Opioid Use

- Alexander the Great took opium with him as he expanded his empire.
- Arabs, Greeks and Romans used it as a sedative. In the 15th and 16th centuries, Arabic traders brought opium to the Far East. From there, opium made its way to Europe, where it was used as a curative for a wide variety of illnesses and psychological problems.
- The history of opioids started in 1775 when it became legal in the United States.
- In 1806 the German chemist Friedrich Wilhelm Adam Sertürner isolated a substance from opium, which he labeled “morphine” after the god of dreams, Morpheus. Morphine soon became the mainstay of U.S. doctors for treating pain, anxiety and respiratory problems, as well as consumption and female ailments.
- Morphine was commonly used as a painkiller during the Civil War.

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Opiates –history continued

- In 1916, a few years after Bayer stopped the mass production of heroin due to the dependence it created, German scientists at the University of Frankfurt developed oxycodone with the hope that it would retain the analgesic effects of morphine and heroin, but with less physical dependence
- While sales of heroin virtually stopped with the passage of The Heroin Act in 1924, mixed views on addiction and opiates existed in the medical community. Then, in 1938, the U.S. Food and Drug Administration (FDA) was given power to oversee the safety of food, drugs and cosmetics; drugs needed to be proven safe in order to be sold. Many opioid-derived medicines being sold, such as codeine, morphine and oxycodone, were still allowed to be prescribed, despite their negative consequences.
- “A Brief History of Opioids.” *Newsweek*.

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Opiates-history continued

- In the 19th century, opium and its derivative drugs played an important role not only as painkillers, but as treatments for diarrhea and cough. Then as now, this treatment could lead to addiction, which affected large numbers of veterans both during and after the war.
- These were the days before oxycodone. While some smoked opium, most patients took the drug orally by swallowing the "gum," a dried, minimally processed version of the opium poppy's "milk." Laudanum, a combination of opium and alcohol, was also common; both were prescribed as both antidiarrheal drugs and painkillers.
- During the Civil War, American doctors began prescribing hypodermic morphine widely for the first time, which is still used widely today in hospitals. In the postwar decades, morphine became a common way to take opiates.

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Amphetamine use in the Military

- **Amphetamines** were given to troops to increase alertness. They had the added benefits of reducing appetites and fatigue. **Nazi Germany**, in particular, embraced amphetamines during **World War II**.
- From April to July of 1940, German service members on the **Western Front** received more than 35 million methamphetamine pills. German troops would go as many as three days without sleep during the **invasion of France**. In contrast, Britain distributed 72 million amphetamine tablets during the entire war

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History of Alcohol and the Military

- In 1794, troops about to enter combat or who were engaged in frontier service could receive a double ration of **4 oz. of rum or whiskey**; this was extended in 1799 to include troops engaged in fatigue duties . It was discontinued in 1832 and replaced with a ration of coffee and sugar , which was increased in 1836
- Used as an initial treatment of shell shock during WWI (this allowed the "nerve shattered" soldier to remain with the unit rather than getting lost in the hospital system"
- Gin and Tonic introduced by the Army of the British East India Company in early 19th century to make quinine easier to digest to prevent malaria(1)

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Psychosocial causes of alcohol abuse in Military

Psychosocial

- **Defining Masculinity:** Alcohol plays a prominent role in military culture, and this can be said for every branch of service. Alcohol has long been tied to ideas of masculinity and power, and there is a history of service members being pressured to keep up with the alcohol consumption of their peers and superiors.
- **Used to mediate stress during the battle and after the battle** Alcohol is also normalized as a coping mechanisms to deal with stress and unpleasant emotions in the military, and service members often gather together after work or in between high-stress duties to drink heavily. There are a wide range of professions available in the military, but for those that find themselves in war zones and far away from home for long periods of time, alcohol is even more likely to be used as an emotional crutch.
- **Reward** Drinking in the military also stems from the "work hard, play hard" mentality. Military life is stressful and often unpredictable. Sailors in the navy, for example, might not receive much notice before deployment, and may only stop in ports for a day or two at a time while on ships. Since drinking is not allowed at sea, sailors often make it their goal to consume as much alcohol as possible while on land. The isolation and intense pressure that comes from performing a demanding job while at sea also contributes to the desire to blow off steam and party whenever given the chance.

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Cocaine use in Battle

- World War I saw the greatest use of cocaine amongst militaries. It was used for medical purposes and as a performance enhancer. At the time, it was not a controlled substance, and was readily available to troops. The British Army distributed cocaine-containing pills under Tabloid's brand name "Forced March",¹³² which were advertised to suppress appetite and increase endurance. In response to a moral panic about the effects of cocaine on society, the British Army Council passed an order in 1916 that prohibited the unauthorized sale of psychoactive drugs like cocaine and opiates to service members.¹³³
- The German Army for its part, also produced during the closing days of World War II a combination of 5 mg of Cocaine, 3 mg of Methamphetamine and 5 mg of Oxycodone in a compound they named D-15,¹³⁴ the compound was reportedly tested on prisoners at the Sachsenhausen concentration camp and found out an individual who had consumed the compound could march 90 kilometers per day without rest while carrying 20 kilograms of equipment. The doctors and military authorities testing the compound were enthusiastic about the results but the war ended the compound could be mass produced and distributed

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Addiction and Treatment Civil War

- **Civil War** People of the era lacked the modern understanding of addiction. Doctors, observers and addicts themselves referred to addiction as "opium slavery," a loaded term considering the premise for the Civil War itself. In the view of the period, "opium slaves" who were unable to kick the habit simply lacked willpower and therefore manliness, which relied on strength and stoicism in the face of suffering.
- Addiction called "army disease"
- Drugs and drug addiction weren't against the law until around 1914 — but that doesn't mean that addiction went unpunished. The stigma had serious repercussions for veterans, who risked losing their military pensions, which required them to meet certain behavioral expectations. Nineteenth-century doctors also believed that addiction could cause insanity, so addicted veterans risked incarceration in mental asylums, where they languished for decades, as the laws of the day made it extremely difficult to leave
- <https://www.binghamton.edu/news>

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Defining PTSD through the years

- Stress-related disorders in response to military service have been noted throughout history. Whether labeled "combat fatigue" or "shell shock" or PTSD, there have been consistent reports in the literature documenting that exposure to combat experiences can lead to an impairment of psychological functioning in military personnel (Foa et al. 2009).
- Beginning with the Vietnam War, and more recently with the wars in Iraq and Afghanistan (Department of Defense [DOD], 2007, p. E5-1), PTSD has been the most commonly diagnosed mental health disorder for veterans returning from combat. Epidemiological studies of Operation Enduring Freedom (OEF)/OIF veterans treated in the Department of Veterans Affairs (VA) health care system have found that 14 to 22 percent of returning veterans were diagnosed with PTSD (Seal et al. 2009; Tanielian and Jaycox 2008), making it the signature psychological wound of these two wars (DOD 2007).
- People are diagnosed with PTSD after exposure to a trauma if they experience a strong emotional response to the event that is followed by persistent difficulty in three key areas, including reexperiencing (e.g., nightmares, flashbacks), arousal (e.g., startle response, sleep disturbance), and avoidance (e.g., withdrawal from people, places, and other reminders of the trauma). These disruptions often lead to an impaired ability to function in social, educational, and work environments, making PTSD a very debilitating condition. More recently, research has found that PTSD and related disorders, such as depression, can develop in military personnel not only as a result of combat exposure but also as a result of childhood traumas, military sexual trauma (MST), mortuary affairs duty, and training accidents (Foa et al. 2009).

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PTSD, Military Sexual Trauma (MST) and alcohol abuse

- Not only does military trauma increase the likelihood of developing stress-related mental health disorders such as PTSD or depression, but, as alluded to earlier, there is also evidence that traumatic experiences are related to problematic alcohol use among military members. One form of military traumatic stress that has been surprisingly under-researched is the psychological impact of exposure to killing within a combat setting. In a series of studies, Maguen and colleagues (2010a, b) examined the relationships among experiences with killing within combat and psychological adjustment of combat veterans, including problematic alcohol use. As predicted, engaging in killing during combat was related to PTSD symptoms but also was independently linked to problematic alcohol use as well as the overall quantity and frequency of alcohol use among these soldiers. These results suggest that killing within the context of combat may be a distinctive risk factor for heavy drinking and problematic alcohol use following combat among members of the military.
- In addition to combat-related traumatic experiences elevating the risk for alcohol misuse, there is also evidence that MST is associated with alcohol misuse among military personnel. In a review of the literature on MST, Suris and Lind (2008) examined the relationship between MST experiences and mental and physical health outcomes. They concluded that MST was related to a variety of negative mental and physical health outcomes, including elevated rates of alcohol misuse among those who experienced MST compared with nontraumatized individuals. Taken together, these results suggest that various forms of military trauma, including exposures to killing in combat and MST, elevate the risk for problematic alcohol use among members of the military. These findings also suggest that alcohol misuse is likely to co-occur with other posttraumatic mental health disorders, such as PTSD and depression, among military personnel. Therefore, it is important to examine the co-occurrence of alcohol misuse within the context of these posttraumatic mental health disorders and to develop models that might explain these comorbidities.

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Sexual Harassment and Alcohol Abuse

- Evidence shows that PTSD is not the only stress-related condition that might mediate the relationship between stress and alcohol misuse in military personnel. In a stratified, large-scale sample of military reservists, Gradus and colleagues (2008) examined whether symptoms of depression explained the relationship between military sexual harassment experiences and alcohol misuse, and they found that more severe sexual harassment was related to greater depression symptoms among female reservists.

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Alcohol Abuse and PTSD

- Not only do alcohol use disorders complicate recovery from posttraumatic mental health disorders, such as PTSD, but these stress-related conditions have been found to impede recovery from alcoholism. Ouimette and colleagues (1999) found that substance-dependent veterans with PTSD had poorer substance abuse treatment outcomes after 2 years compared with those without PTSD. Consistent with these results, Brown and colleagues (1999) found that substance-dependent individuals with co-occurring PTSD relapsed more quickly than those without PTSD.
- Taken together, these results suggest that the co-occurrence of an alcohol use disorder with PTSD provides a substantial barrier to recovery from both of these disorders

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Preexisting alcohol abuse contributes to PTSD maladjustment

- Although it is possible that military members may engage in alcohol misuse as a way of trying to cope with posttraumatic psychiatric symptoms, there also is evidence to suggest that preexisting alcohol misuse contributes to posttraumatic psychiatric maladjustment. A longitudinal study by Dickstein and colleagues (2010) found several trajectories of recovery from PTSD symptoms among U.S. soldiers who were deployed to Kosovo on a peacekeeping mission. Although most soldiers (84 percent) exhibited a resilient recovery following their deployment (i.e., low initial PTSD symptoms that decreased over time), a minority exhibited problematic levels of PTSD during the follow-up period. After controlling for other possible risk factors, higher predeployment alcohol misuse distinguished soldiers who experienced PTSD symptoms over the postdeployment follow-up period.
- These results suggest that problematic drinking prior to the traumatic combat experience may be a risk factor for some soldiers to exhibit PTSD symptoms following combat exposure

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Traumatic Brain Injuries and Alcohol Abuse

- The causal links between alcohol misuse and posttraumatic mental health problems are further complicated by the role of traumatic brain injury (TBI) among military members. The rates of traumatic brain injury resulting from combat have increased dramatically with veterans from OEF and OIF versus veterans from prior conflicts.
- This increase in rates of TBI may be at least partially explained by improvements in body armor and the medical response to combat injuries. With these modern technologies, OEF and OIF veterans are now able to survive injuries that would have resulted in death in prior combat eras. However, many of these OEF and OIF veterans who now survive combat trauma are left with the repercussions of TBI. These TBI events often result from blast exposure during combat, which also can lead to posttraumatic mental health disorders (Corrigan and Cole 2008).
- Some studies have found that up to 44 percent of veterans who reported loss of consciousness and 27 percent of veterans who reported altered mental status also met criteria for PTSD (Hoge et al. 2008). Given this co-occurrence, defining the etiology of these presenting complaints can be difficult.
- Furthermore, the relationship between alcohol misuse and TBI often is complex because heavy drinking may predate and predispose individuals to experiencing a TBI (i.e., TBI can result from accidents that occur when people are under the influence of alcohol). In addition, alcohol misuse can exacerbate the complications of TBI by worsening TBI symptom severity (e.g., persistent memory problems) and by further increasing an individual's risk for experiencing additional alcohol-related TBI events. In summary, there are likely to be multiple interrelated factors explaining the relationship between experiencing traumatic events and alcohol misuse among members of the military

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Self Medication Hypothesis

- There is a significant clinical need for a better understanding of the etiology and treatment of co-occurring posttraumatic stress disorder (PTSD) and substance use disorders (SUD). Approximately half of individuals seeking treatment for SUD meet current criteria for PTSD [1], an estimate more than 5 times greater than the U.S. lifetime prevalence rate
- More often, studies indicate PTSD predicts subsequent SUD, as it is consistent with the self-medication hypothesis, or the theory that individuals use substances to cope with psychiatric distress [20]. PTSD precedes SUD in retrospective [2, 21] and prospective studies [22]. Cross-sectional studies have demonstrated links between PTSD and using substances to cope with negative affect
- Results of a recent daily monitoring study indicate that on days of greater PTSD symptoms, individuals experience higher subjective craving for alcohol
- <https://www.ncbi.nlm.nih.gov/>

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Zero Drug Tolerance Policy

- Drug testing got its start shortly after the Vietnam War. In 1971, President Richard Nixon directed the military to initiate a urine drug testing program. This newly formed program yielded a disturbingly high positivity rate among military personnel returning from Vietnam. In 1982, the Department of Defense formally defined forensic drug testing requirements and the Army, Navy and Air Force established panels of active duty scientists for the development and implementation of forensically sound drug testing procedures.*
- Zero Drug Tolerance Policy went into affect in 1980.
- Analyses of male recruits at multiple time periods showed (1) declines in the prevalence of marijuana use and cocaine use after the initiation of routine military drug testing. Relative to other substance use, heavy drinking (i.e., consuming five or more drinks per typical drinking occasion at least once a week) appears to be a particularly persistent problem in the military. Although illicit drug use and cigarette smoking both decreased significantly over the period from 1980 to 2002, heavy alcohol use did not show the same decline. In fact, heavy alcohol use increased significantly from 1998 to 2002 for the first time since 1988

*Quest Diagnostics

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DSM-IV-TR Diagnostic Criteria for Alcohol Abuse and Dependence

Appendix B. DSM-IV-TR Diagnostic Criteria for Alcohol Abuse and Dependence

- **ALCOHOL ABUSE**
- (A) A maladaptive pattern of drinking, leading to clinically significant impairment or distress, as manifested by at least one of the following occurring within a 12-month period:
 - Recurrent use of alcohol resulting in failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to alcohol use, alcohol-related absenteeism, suspension, or expulsion from school)
 - Recurrent alcohol use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by alcohol use)
 - Recurrent alcohol-related legal problems (e.g., arrests for alcohol-related disorderly conduct)
 - Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol (e.g., arguments with spouse about consequences of intoxication)
- (B) Never met criteria for alcohol dependence
- **ALCOHOL DEPENDENCE**
- (A) A maladaptive pattern of drinking, leading to clinically significant impairment or distress, as manifested by three or more of the following occurring at any time in the same 12-month period:
 - Need for markedly increased amounts of alcohol to achieve intoxication or desired effect, or markedly diminished effect with continued use of the same amount of alcohol
 - The characteristic withdrawal syndrome for alcohol or drinking (or using a closely related substance) to relieve or avoid withdrawal symptoms
 - Tolerance (e.g., larger amounts or need for longer periods than intended)
 - Persistent desire or one or more unsuccessful efforts to cut down or control drinking
 - Important social, occupational, or recreational activities given up or reduced because of drinking
 - A great deal of time spent in activities necessary to obtain, use, or recover from the effects of drinking
 - Continued drinking despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to be caused or exacerbated by drinking
- (B) No duration criterion separately specified, but several dependence criteria must occur repeatedly as specified by duration qualifiers associated with criteria (A), "persistent," "continued")

* Source: Adapted from American Psychiatric Association (APA). Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision, Washington, DC, USA, 2000

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Substance Abuse services offered for Active Duty at the VA

- A patient coming to VA can expect to find the following types of care:
- first-time screening for alcohol or tobacco use in all care locations
- short outpatient counseling including focus on motivation
- intensive outpatient treatment
- residential (live-in) care
- medically managed detoxification (stopping substance use safely) and services to get stable
- continuing care and relapse prevention
- marriage and family counseling
- self-help groups
- drug substitution therapies and newer medicines to reduce craving

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Mental Health Services at VA

- VA provides many [mental health services](#).
- These services include help for:
 - [Post Traumatic Stress Disorder](#)
 - Management of Depression
 - Anxiety, Stress
 - Adjustment from Deployment
 - Counseling and Medication
 - [Military Sexual Trauma](#)
 - Family and Parenting Issues
 - Treatment for Alcohol and Drug Dependence
- [Vet Centers](#) offer a wide range of services to help service members make a successful transition from military to civilian life.

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Psychotherapy and medical treatment

- Several types of psychotherapy, also called talk therapy, may be used to treat children and adults with PTSD. Some types of psychotherapy used in PTSD treatment include:
- **Cognitive therapy.** This type of talk therapy helps you recognize the ways of thinking (cognitive patterns) that are keeping you stuck — for example, negative beliefs about yourself and the risk of traumatic things happening again. For PTSD, cognitive therapy often is used along with exposure therapy.
- **Exposure therapy.** This behavioral therapy helps you safely face both situations and memories that you find frightening so that you can learn to cope with them effectively. Exposure therapy can be particularly helpful for flashbacks and nightmares. One approach uses virtual reality programs that allow you to re-enter the setting in which you experienced trauma.
- **Eye movement desensitization and reprocessing (EMDR).** EMDR combines exposure therapy with a series of guided eye movements that help you process traumatic memories and change how you react to them.
- A medical treatment called **stellate ganglion block (SGB)** is one of the newest options. SGB is an injection administered by a doctor or other healthcare professional into the neck.

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Medications

Several types of medications can help improve symptoms of PTSD:

- **Antidepressants.** These medications can help symptoms of depression and anxiety. They can also help improve sleep problems and concentration. The selective serotonin reuptake inhibitor (SSRI) medications sertraline (Zoloft) and paroxetine (Paxil) are approved by the Food and Drug Administration (FDA) for PTSD treatment.
- **Anti-anxiety medications.** These drugs can relieve severe anxiety and related problems. Some anti-anxiety medications have the potential for abuse, so they are generally used only for a short time.
- **Prazosin.** While several studies indicated that prazosin (Minipress) may reduce or suppress nightmares in some people with PTSD, a more recent study showed no benefit over placebo. But participants in the recent study differed from others in ways that potentially could impact the results. Individuals who are considering prazosin should speak with a doctor to determine whether or not their particular situation might merit a trial of this drug.

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In the Community

- Finding like-minded peer groups for connection
- Access to spiritual-based treatments like meditation
- Cognitive behavioral therapy to explore solutions to behavioral challenges
- Access to therapists to discuss underlying life challenges for alcoholism
- Treatment for [other substances abused with alcohol](#)
- Access to 12-Step groups
- Safe detox for [expecting mothers](#) struggling with alcohol addiction

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VA treatment of Co-Occuring PTSD and SUD

- **Treatment of Co-Occurring PTSD and Substance Use Disorder in VA**
- Posttraumatic stress disorder (PTSD) and substance use disorder (SUD) often co-occur among Veterans seeking Veterans Affairs (VA) care.
- Patients with PTSD and SUD can tolerate and benefit from evidence-based trauma-focused PTSD treatment such as Prolonged Exposure (PE) and Cognitive Processing Therapy (CPT).
- Per VA policy, patients with PTSD and SUD should be offered evidence-based treatment for both disorders. Having one should not be a barrier to receiving treatment for the other.
- Shared decision making about treatment for co-occurring PTSD and SUD using a patient-centered collaborative approach that incorporates measurement based care (MBC) is recommended.

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Breakout exercise

- Criteria for PTSD
- Criteria for Alcohol Abuse
- Mary's story
- Steve's story
- Joe's story

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Questions?

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Resources

- <https://www.ptsd.va.gov/appvid/mobile/index.asp>
- https://www.ptsd.va.gov/professional/treat/cooccurring/tx_sud_va.asp
- Military One Source www.militaryonesource.mil
- Rethinking Drinking: alcohol and your health
- Rethinkingdrinking.niaaa.nih.gov helpful tools including drink size calculator

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