



Bureau of Justice Assistance (BJA)

Comprehensive Opioid, Stimulant, and Substance Use Program (COSSUP)

Post-traumatic Stress Disorder as a Risk Factor for Substance Use Disorder: Review and Recommendations for Intervention

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Introduction

In the United States, lifetime post-traumatic stress disorder (PTSD) is a common psychiatric diagnosis (occurring in approximately 6.1 percent of adults), with even higher rates among rural, low-income communities.¹ PTSD alone is associated with several adverse health outcomes, but individuals with PTSD also are likely to suffer from other disorders, including substance use disorders (SUDs).² Individuals with both PTSD and an SUD (PTSD-SUD) report more severe long-term functional impairments than individuals with only one of these diagnoses.^{3,4} In addition, SUD recovery rates are much lower in people with PTSD than in those without.⁵ Because co-occurrence is so common, it is crucial that SUD treatment providers incorporate initial PTSD screening and ongoing PTSD symptom monitoring. Doing so will allow for early intervention opportunities and better long-term outcomes.

SUDs and PTSD

More than 50 percent of people diagnosed with PTSD report symptoms of substance misuse at some point in their lifetimes.⁶ While researchers have proposed a handful of models explaining the relationship between PTSD and SUDs, more research is still needed. For example, because symptoms of PTSD often precede symptoms of SUDs or emerge at the same time, researchers believe that substance use may be an avenue for self-medication after a traumatic event.^{8,9,10} Substance use may also exacerbate or prolong PTSD symptoms, which helps explain why so many individuals report symptoms of both disorders.¹¹

PTSD-SUD co-occurrence has negative effects on both physical and mental health outcomes, beyond the effects of PTSD or SUDs alone. For example, individuals with PTSD-SUD co-occurrence are more likely to report cardiovascular, neurological, and chronic physical symptoms when compared to individuals with only one diagnosis.¹² Individuals with PTSD-SUD co-occurrence also score significantly

worse on measures of general well-being as well as emotional and mental health.¹³

Further, the course of SUD recovery is negatively affected by PTSD.¹⁴ Compared to individuals with SUDs but no PTSD, individuals with a dual diagnosis are more likely to relapse when faced with social pressure or negative physiological states (e.g., pain, medication side effects) and are more likely to be readmitted to inpatient SUD treatment within 1 year of their initial treatment.^{15, 16}

Opioid Use and PTSD

Although PTSD is associated with several types of SUDs (e.g., the use of alcohol or nicotine),¹⁷ it is an especially notable predictor for the development of opioid use disorder (OUD).^{18, 19} Compared to people in the general population, people with PTSD are more likely to have dysregulation of the body's natural pain management system (the endogenous opioid system).²⁰ The use of opioids can help suppress anxiety and blunt the acute symptoms of PTSD,²¹ leaving people with PTSD vulnerable to addiction. Specifically, individuals who exhibit hyperarousal or reactivity symptoms—such as startle response, risk-taking behavior, difficulty concentrating, or irritability—are at high risk for opioid misuse.²²

PTSD Trauma Type and SUDs

Evidence suggests that the clinical course of PTSD may differ depending on the type of traumatic event that an individual has been exposed to. Compared to other types of traumas, early-onset chronic interpersonal trauma (e.g., sexual or physical abuse by a caregiver) is associated with greater impairment of emotion regulation abilities,²³ and individuals who have experienced sexual trauma report more severe, prolonged PTSD symptoms.²⁴

Trauma type is also associated with the likelihood that an individual with PTSD will later be diagnosed with an

SUD. Exposure to interpersonal trauma is a consistent predictor of substance use as a coping strategy, whereas exposure to noninterpersonal trauma is not.²⁵ A history of physical or sexual abuse, specifically, puts an individual at greater risk for developing an SUD.²⁶

Recommendations for Screening and Monitoring

Considering the risk for PTSD-SUD co-occurrence, and the combined adverse health effects, it is crucial to emphasize PTSD symptom monitoring when treating for SUDs. SUD treatment providers may consider conducting PTSD screening at intake and continuing to monitor symptoms over time. Providers should be especially vigilant when monitoring high-risk individuals, including individuals who have been exposed to chronic interpersonal trauma (e.g., physical or sexual abuse) or who are exhibiting hyperarousal or reactivity symptoms.

PTSD Initial Screening

For patients being treated for SUDs, an initial PTSD screening may be implemented using the [Clinician-Administered PTSD Scale for DSM-5 \(CAPS-5\)](#).²⁷ The CAPS-5 is the gold standard for PTSD assessment and is administered during a 1- to 2-hour interview by trained clinical or non-clinical staff members. The CAPS-5 evaluates symptom severity during the previous month and the worst month of symptoms (free CAPS-5 training is available [online](#) by request from the U.S. Department of Veterans Affairs).²⁸

For some health professionals, administering and scoring the CAPS-5 interview may require too much time or too many resources. The [Primary Care PTSD Screen for DSM-5 \(PC-PTSD-5\)](#)²⁹ is an alternative five-item measure used by the U.S. Department of Veterans Affairs to screen for PTSD symptoms. Most of the time (76.5 percent), results of the PC-PTSD-5 are the same as results from the full CAPS-5 assessment.³⁰

PTSD Symptom Monitoring

Even if significant PTSD symptoms are not identified at the initial screening, they may continue to emerge over time (i.e., delayed-onset PTSD).³¹ As a result, SUD treatment providers should consider ongoing PTSD symptom monitoring. [The PTSD Checklist for the DSM-5 \(PCL-5\)](#) is a tool used for measuring changes in PTSD symptom severity over time.³² The PCL-5 is a 20-item self-report measure, which takes only a few minutes to complete. According to data used by the U.S. Department of Veterans Affairs, a 5- to 10-point change in PCL-5 score represents a reliable change in symptom severity, whereas a 10- to 20-point change in PCL-5 score represents a clinically significant change in symptom severity.³³ These increases in PCL-5 scores justify further PTSD screening and assessment and may help inform subsequent clinical decisions.

Intervention Strategies

Once PTSD-SUD co-occurrence has been identified, several evidence-based treatment options can be used to specifically target this dual diagnosis.

Seeking Safety (SS) Therapy

SS therapy is a treatment program based on cognitive behavioral practices. It focuses on the connection between trauma, substance use, and coping skills. SS therapy is administered as 25 client-guided sessions in either an individual or a group setting.³⁴ A meta-analysis of SS clinical studies reveals that compared to people who receive no treatment, SS clients report significantly reduced PTSD symptoms.³⁵ Research suggests that this intervention may be especially beneficial for women who have experienced chronic interpersonal violence, and less beneficial for individuals who have experienced combat-related trauma.^{36, 37, 38, 39} Overall, SS therapy is regarded as a promising option for integrated PTSD-SUD treatment.

Concurrent Treatment of PTSD and SUDs Using Prolonged Exposure (COPE) Therapy

COPE is a cognitive behavioral psychotherapy that combines validated approaches for treating PTSD (prolonged exposure) and SUD (cognitive behavioral approach).⁴⁰ COPE is administered as 12 individual sessions, aimed at (1) educating the client about the relationship between PTSD and SUD, (2) addressing potential triggers, and (3) exposing the client to trauma-related images. Compared to clients of other therapies, COPE clients report significant reductions in PTSD symptom severity and comparable SUD treatment outcomes.^{41, 42, 43} Outcomes from COPE and SS therapies have not been directly compared. Overall, findings from COPE studies indicate that exposure-based interventions may be an effective avenue for integrated PTSD-SUD treatment.

Pharmacological Intervention

Several medications have been investigated for the treatment of concurrent PTSD and alcohol use disorders, including selective serotonin and norepinephrine reuptake inhibitors (SNRIs), naltrexone (opioid agonist), prazosin (adrenergic agonist), and N-acetylcysteine (amino acid derivative supplement). However, success in the reduction of both PTSD and SUD symptoms has been modest.⁴⁴ Fortunately, findings suggest that the administration of oxytocin, combined with psychosocial treatment, may be a promising intervention strategy to address both PTSD and SUD together.^{45, 46} Gamma-aminobutyric acid (GABA) receptor agonists, such as topiramate, have also shown moderate success.⁴⁷ Overall, more research is needed on the pharmacological treatment of PTSD-SUD. However, the U.S. Food and Drug Administration has approved several evidence-based medications to treat the symptoms of OUD alone, including buprenorphine, methadone, and naltrexone.

Summary

PTSD and SUDs often occur together, and an individual with diagnosed PTSD-SUD faces several associated long-term health risks. As a result, SUD treatment providers should consider PTSD screening at the beginning of treatment programs as well as ongoing PTSD symptom monitoring. Screening and monitoring for PTSD-SUD will allow for early intervention using strategies that are tailored for a dual diagnosis.

Endnotes

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About COSSUP

COSSAP is transitioning to the Comprehensive Opioid, Stimulant, and Substance Use Program (COSSUP). This change in title for the program is indicative of efforts to reduce the stigma related to substance use and to support impacted people in their recovery journey.

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