

Stimulant Use Disorder Treatment

BSAS recognizes the challenge that stimulant use poses to many individuals, and that care for stimulant use disorders has lagged behind care for other substance use disorders. This practice guidance serves to inform addiction treatment providers across the Commonwealth of Massachusetts of existing tools to implement evidence-informed strategies on the management of stimulant use disorder in program settings. BSAS licensed treatment services are available to people with stimulant use disorders, and ensuring access to quality care is a priority for the Bureau.

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Helpline

Call BSAS' Helpline at 1-800-327-5050 (8 am-10 pm Mon-Fri, 8 am-6 pm on weekends) to get information on programs and services that are best for you in your area. Go to www.helplinema.org/help for more details.

Key Takeaways

In the Commonwealth of Massachusetts there is notable concern regarding stimulant use and demand for treatment access. BSAS is committed to equipping licensed providers with the skills and tools to meet this emerging need. The treatment of stimulant use disorders involves the careful assessment of patient needs in order to provide a therapeutic environment. Although there are no FDA-approved medications for treating stimulant use disorders, there are several behavioral interventions available and currently implemented by many BSAS licensed programs.

Resources

Substance Abuse and Mental Health Services Administration (SAMHSA): Treatment of Stimulant Use Disorders. SAMHSA Publication No. PEP20-06-01-001 Rockville, MD: National Mental Health and Substance Use Policy Laboratory. Substance Abuse and Mental Health Services Administration, 2020.

Integration of Care for People who Use Stimulants into Substance Use Treatment Services

Background

Rationale: Accessible care, treatment and services for people who use stimulants and have stimulant use disorders lag behind care, treatment, and services for other substance use disorders. Because stimulant use is relatively more common in some racial and ethnic groups, the lack of stimulant care access results in racial and ethnic inequities. This practice guidance serves to inform addiction treatment providers across the Commonwealth of Massachusetts of existing tools to implement evidence-informed strategies on the care of people who use stimulants in program settings. BSAS licensed treatment services are available to all people with stimulant use disorders and ensuring access to quality care is a priority for the Bureau. All licensed and contracted providers are required to appropriately assess all individuals regardless of the substance which they are using. This includes but is not limited to opioids, stimulants, and alcohol, in accordance with Department of Public Health regulations and provider contract agreements. No individual seeking treatment should be denied access based solely on the type of primary substance used.¹

What are stimulants?

Stimulant types include cocaine, methamphetamine, prescription stimulants (amphetamine, methylphenidate), and caffeine.^{2,3} Stimulants work in the central nervous system to cause euphoria, heightened alertness, and increased energy. They can also cause physiological effects like increased heart rate, breathing, and blood pressure. Stimulant use, particularly cocaine and methamphetamine, can result in acute and chronic effects, including overdose and addiction. People who use stimulants on a daily basis can experience withdrawal. While daily caffeine use results in physical dependence, overdose is rare and caffeine addiction is not recognized as a diagnosable disorder. In Massachusetts, 3.1% of adults used cocaine and 0.3% used methamphetamine in 2019, according to the National Survey on Drug Use and Health.⁴

Clinical Care and Support

Stimulant Overdose/Intoxication

The syndrome of stimulant intoxication and overdose is a result of a large quantity or potent dose of stimulants and presents differently depending on the substance used. Intoxication can result in behavioral symptoms like confusion, paranoia, irritability, hypersexuality, and hyper vigilance. Physiologic signs and symptoms can include elevated body temperature, rapid heart rate, elevated blood pressure, chest pain, and neurologic problems. Both cocaine and methamphetamine acute intoxication and overdose can lead to heart attack, stroke, and seizure, while chronic use is a cause of cardiovascular disease.⁵ Stimulants are commonly present during opioid, alcohol, and benzodiazepine overdoses as well.

De-escalating intoxication, agitation and psychosis

People using stimulants commonly become distressed or agitated, which may progress, especially with chronic use, to include psychosis and/or presenting a danger to themselves or others. Psychosis symptoms include auditory, visual, and tactile hallucinations, delusions (an unshakable belief in something untrue) and paranoia. Care should focus on comfort and de-escalation (See Box: Ten Domains of De-escalation).

De-escalation starts with ensuring a safe, calming personal space and safety. Maintain physical distance from the patient and provide a quiet, shaded room with a comfortable seat or place to lie down and clear and open exit. Avoid provoking the patient by maintaining a non-threatening posture or making triggering or threatening statements. Designate one care provider at a time to interact calmly and reassuringly with the patient, explaining who they are and their role in keeping the patient safe.

Communication should be concise and repeated, allowing the patient time to process and understand. Elicit and identify the wants and feelings of the patient. Acknowledge these wants and feelings, so the patient knows that they have been heard. State the patient's wants and feelings, back to the patient so they know you are listening and they have been heard. When a patient is seeking validation of a concern, agree with what you can and acknowledge where you cannot by agreeing to disagree. When a patient threatens or acts as a danger to himself or others, including the care providers, state clearly that you will seek assistance to ensure that they do not hurt themselves or others and that you feel safe. Provide the patient control and reassurance, by offering choices and optimism. Offer a menu of comforts, such as food, water, pillow, or blanket.

Medical providers may offer medications for symptoms and should offer the patient some choice of the timing of the medication. Provide ongoing re-assurance of the patient's safety and that symptoms will resolve with time and relaxation. Express positive re-enforcement as the patient de-escalates. If these de-escalation techniques do not de-escalate, then intoxication, agitation, and psychosis symptoms can be managed using anti-psychotic medications during an acute crisis. When danger to self or others persists despite de-escalation efforts, engage psychiatric crisis services and transfer the patient to an emergency or hospital setting for psychiatric care.

After the intoxication, agitation, or psychosis resolves, debrief with the patient so they understand what happened and consider how to prevent a future episode. Also debrief with the staff to understand whether the de-escalation worked and could have been improved. Staff in BSAS programs should receive on-going training on de-escalating intoxication, agitation, and psychosis.

Box. Ten Domains of De-escalation:

1. Respect personal space
2. Do not be provocative
3. Establish verbal contact
4. Be concise
5. Identify wants and feelings
6. Listen actively and respond appropriately
7. Agree or agree to disagree
8. Lay down the law and set clear limits
9. Offer choices and optimism
10. Debrief the patient and staff.

Source: Richmond JS, Berlin JS, Fishkind AB, et al. Verbal De-escalation of the Agitated Patient: Consensus Statement of the American Association for Emergency Psychiatry Project BETA De-escalation Workgroup. *West J Emerg Med.* 2012;13(1):17-25. Available at: <https://pubmed.ncbi.nlm.nih.gov/22461917/>

Stimulant withdrawal symptoms

The frequency and intensity of stimulant use will determine the risk and intensity of withdrawal symptoms, with withdrawal being more common in severe use disorder. Stimulant withdrawal is typically characterized by depressed mood, low energy, and irritability. There can be both intense exhaustion and insomnia. It is not uncommon to sleep for 1 to 2 days after a stimulant binge. Other symptoms include agitation and irritability, increased appetite, muscle aches, stimulant cravings, and auditory and visual hallucinations. Suicidal ideation can occur, especially in persons with underlying mood disorders.

Symptoms typically begin within 24 hours of last use of stimulants and can last for 3-5 days. Acute stimulant withdrawal may be followed by protracted withdrawal symptoms of 1-2 months duration, characterized by lethargy, anxiety, unstable emotions, erratic or disturbed sleep patterns, and strong cravings for stimulant drugs. These symptoms may complicate the patient's involvement in treatment and should be taken into account when planning treatment goals.

Observation and monitoring

The mainstay of treatment for stimulant withdrawal is monitoring and supportive care to relieve symptoms. No withdrawal scale has been validated for widespread use. During withdrawal, the patient's mental state should be monitored to detect complications such as psychosis, suicidal ideation, depression, and anxiety. Patients who exhibit severe symptoms, such as abnormal vital signs, psychosis or panic, who do not improve with de-escalation techniques or withdrawal symptom management should be transferred to a medical or psychiatric hospital where these severe symptoms can be monitored and managed.

Managing withdrawal symptoms

Dehydration and electrolyte depletion are common after a stimulant binge and during stimulant withdrawal. Patients should drink at least 3-4 liters of water per day and provided nutritious food during stimulant withdrawal. Over the counter medications should be offered for specific symptoms, such as ibuprofen or acetaminophen for muscle aches and diphenhydramine for anxiety or insomnia.

Treatment and Harm Reduction

Stimulant Use Disorder: Engagement and retention in treatment

The most common, evidence-based treatment for stimulant use disorder is cognitive behavioral therapy-based counseling (CBT) which focuses on providing patients with skills to reduce the risk of relapse. These counseling programs may be offered individually, in groups via an intensive outpatient treatment program, or through residential treatment programs. Contingency management (CM) has been shown to be effective in multiple studies; however, contingency management programs have not been widely accessible. CM rewards participants for not using stimulants with increasing rewards for longer periods of abstinence. The Matrix

Model places intense focus on the use of therapy sessions with a professional therapist and addresses relapse prevention, family education, and peer support groups.⁶

Relapse is common and understood to be part of the trajectory of any substance use disorder.⁷ Engaging with family and support networks to assist in remission from daily use is important. Recent studies have shown some benefit of medications like mirtazapine and bupropion for treatment of methamphetamine or other stimulant disorders, though these medications have not been FDA approved for these indications.⁸ More research and innovation in care for stimulant use disorders is needed for both pharmacologic and non-pharmacologic treatment modalities.

Stimulants and other substance use

Stimulants are frequently used in conjunction with other substances. They balance the sedating effects of opioids and alcohol. For example, people who use stimulants often couple it with use of a sedating substance in order to counteract the agitation and difficulty sleeping that occurs as a stimulant binge goes on. Benzodiazepines can mellow out the highs of stimulant use. The inhibition and increased energy produced by stimulants may also lead to other risky behaviors and substance use.

There are reports of fentanyl-contaminated cocaine products in New England.⁹ Prevalence of stimulants in opioid overdose deaths has increased dramatically in the last 5 years. In 2018, 86% of deaths involving stimulants also involved opioids.¹⁰ Users should be aware of the risk of unintentional overdose when using stimulants and/or opioids, especially heroin and fentanyl. Providers should be aware of and assess for concurrent substance use disorders and offer appropriate, evidence-based treatment whenever necessary.

Stimulants and harm reduction

General harm reduction practices apply to stimulant use, as stimulants can be used in many ways. Intravenous injection of cocaine and methamphetamine are the highest risk behaviors for overdose, the development of skin, soft tissue, and systemic bacterial infections, and the transmission of HIV and hepatitis C infection.¹¹ Stimulants are frequently used through snorting or smoking which are less likely to result in infections than injection. Appropriate harm reduction supplies to use stimulants safely should be offered, especially to Black and Hispanic populations which have higher prevalence of non-injection stimulant-related deaths. Individually tailored harm reduction counseling should accompany all use disorder treatment. Provide naloxone to any patient who continues to use stimulants, especially if there is concurrent opioid use. Although naloxone does not work with stimulant overdose, it should be offered due to the prevalence of conjunctive intentional or unintentional opioid use. Persons who inject stimulants or other drugs should be considered for the appropriate HIV prophylaxis.¹² Additional focus on promoting healthy behaviors for anyone with compulsive binge use patterns of stimulants is important. Enhancing harm reduction practices during and after the COVID-19 pandemic deserves focus.¹³

Special Populations

Stimulants and treatment of co-occurring mental illness, including trauma

Stimulant use disorder is highly prevalent among adults with mood disorders, ADHD, suicidality, PTSD, or psychotic disorders.¹⁴ Difficulty distinguishing primary psychiatric symptoms from substance use disorder intoxication or withdrawal is common. Treatment for this type of patient is often challenging and should include involvement of a psychiatrist for evaluation and treatment. Individuals with multiple psychiatric disorders and co-occurring substance use have lower mental and psychiatric functioning which may complicate treatment plans.¹⁵

Stimulants and pregnancy

Cocaine use during pregnancy increases the risk of preterm delivery, low birth weight (< 2500 g), small for gestational age infants, earlier gestational age at delivery and reduced birth weight. However, despite multiple observational studies, there is no compelling evidence that prenatal cocaine exposure is associated with adverse outcomes that cannot be attributed to gestational age at delivery, caregiver psychiatric comorbidities, other prenatal exposures (tobacco, marijuana or alcohol) or quality of postnatal environment.¹⁶ Fewer studies and less overall research is available for methamphetamine use, but generally align with the findings from cocaine studies. Women who are pregnant should receive the appropriate care to abstain from or decrease stimulant use and other substance use.¹⁷ Pediatric guidelines recommend against breast feeding in the setting of active stimulant use.

Stimulants and transactional sex

Transactional sex (trading money, substances, housing safety for sex) can occur among people who use stimulants. Sexual assault and sexual trauma are common among people who use stimulants and engage in transactional sex.¹⁸ Awareness of the high-risk sexual behaviors that are associated with methamphetamine and cocaine use is important for harm reduction and treatment. Staff and programs providing care for people who use stimulants should be trained in trauma-informed care and prepared to refer those with histories of sexual trauma for counseling and support. Persons who use stimulants and engage in transactional sex are candidates for pre- or post-exposure HIV prophylaxis and should be counseled on safer sex practices and birth control.¹⁹

Summary

In the Commonwealth of Massachusetts there is increasing stimulant use and demand for treatment access. BSAS is committed to equipping licensed providers with the skills and tools to meet this emerging need. The treatment of stimulant use disorders involves the careful assessment of patient needs in order to provide a therapeutic environment. Although there are no FDA-approved medications for treating stimulant use disorders, there are several behavioral interventions available and currently implemented by many BSAS licensed programs. Managing withdrawal and planning treatment goals for reducing stimulant use can be done in any treatment setting. Patients with stimulant disorders may have other substance use disorders or

co-occurring mental illness, and these are important factors in case management. Providing equitable access to treatment for stimulant use disorders will lead to better outcomes for all patients and reduce disparities among this underserved population.

Resource: [Substance Abuse and Mental Health Services Administration \(SAMHSA\): Treatment of Stimulant Use Disorders](#). SAMHSA Publication No. PEP20-06-01-001 Rockville, MD: National Mental Health and Substance Use Policy Laboratory. Substance Abuse and Mental Health Services Administration, 2020.

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