

Adolescent Substance Use



CSAM Addiction Medicine Board Review Course
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EDUCATIONAL OBJECTIVES

After attending this presentation, participants will be able to:

- Develop a treatment approach for opioid use disorders in adolescents.
- Differentiate primary mood disorders from substance-induced disorders in adolescents.
- Outline the unique issues in diagnosing and treating gambling disorders in women.
- Describe the relationship between sexuality/gender minority status in increasing risks of addiction in adults and adolescents.

CONFLICT OF INTEREST DISCLOSURE

I, Mason Turner, MD, DFASAM, have nothing to disclose, and in this presentation, I have indicated where proposed use of “off label” drugs is mentioned.

High Yield Topics

- Trends in non-medical prescription opioid use, including fentanyl, in adolescents
- Use of substances, including nicotine, during various stages of adolescence
- Identification and effectiveness of primary and other prevention strategies
- Risks and protective factors which predispose to adolescent substance use
- Hereditary versus environmental predictors of adolescent substance use
- Co-occurring mental health disorders which may predict substance use disorders in adolescents (particularly ADHD)
- Neurobiology of adolescent brains
- Substance use screening tools for adolescents
- “Monitoring the Future” data
- Inhalants and club drugs – ED presentations, adverse effects, neurochemistry (which transmitters are affected by each drug)
- Effects of THC on the adolescent developing brain

Question 1

A 17-year-old gender fluid person (they/them) presents with a 3-year history of daily marijuana use and a 12-month history of daily (oral) use of opioid pain medications. They have had long-standing affective instability and increasing problems with disruptive behavior including academic failures and school suspensions and are also escalating the intensity of their substance use. They have experimented with smoking fentanyl on several occasions when they couldn't obtain prescription pills.

With reluctance, they have finally been persuaded by their parents to enter treatment and are currently in a residential program. Following a difficult transition to buprenorphine, they ask to have the buprenorphine tapered “so that I can be clean on my own without any medication crutches.”

Question 1

What is the most appropriate next step?

- A. Since this is their first episode of treatment, non-pharmacologic treatment is acceptable, and you agree buprenorphine may be tapered as long as they attend mutual support groups.
- B. Explain that there is growing evidence that methadone is superior to buprenorphine in their age group and recommend transitioning to methadone.
- C. You agree that to transition off buprenorphine as it is not approved for use in patients under 18.
- D. Encourage them and their family to consider use of buprenorphine for long-term maintenance given their escalating use and recent initiation of fentanyl.

1. **Answer D. Encourage them and their family to consider use of buprenorphine long-term given their escalating use and recent initiation of fentanyl.**

- Buprenorphine is FDA approved for use in patients aged 16 and older and, in this case, is an excellent treatment approach for the patient and should be offered as part of a comprehensive treatment plan.
- However, with a very high-risk adolescent such as this one who is entering into treatment for the first time, psychosocial treatment in addition to buprenorphine is essential, particularly in the context of their gender minority status and risk of minority stress. When available, treatment specific to address minority stress and addictions is preferred.
- While many patients start off by saying they want to be “clean” and may consider using opioid agonist treatment as still being “dirty,” the addiction medicine field is moving away from these kinds of characterizations. Using opioid agonist treatment is part of a healthy recovery and has strong evidence in support of its use. As such, option A is not the **best** answer given the strong evidence in support of buprenorphine. While the patient and family may refuse, the physician should offer the option for medical management.

1. Answer D. Encourage them and their family to consider use of buprenorphine long-term given their escalating use and recent initiation of fentanyl.

- Methadone is not typically used in patients under the age of 18.
- While methadone can be prescribed to youth under the age of 18, the United States Code of Federal Regulations requires documentation that the patient has failed two previous drug-free or withdrawal management attempts and written consent from a parent or guardian

Treatment Improvement Protocol (TIP) Series, No. 40., Chapter 5: Special Populations. Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration (2004).

Chang DC, Klimas J, Wood E, Fairbairn N. Medication-assisted treatment for youth with opioid use disorder: Current dilemmas and remaining questions. *Am J Drug Alcohol Abuse*. 2018;44(2):143-146. doi: 10.1080/00952990.2017.1399403. Epub 2017 Nov 30. PMID: 29190156; PMCID: PMC5815926.

Question 2

As part of their treatment, the patient elects to continue in a residential recovery program, agreeing to a trial of opioid agonist treatment with buprenorphine-naloxone. One week after discharge, following an 8-week admission, they present to their first outpatient appointment. They have been taking buprenorphine-naloxone 6 mg twice daily, which was started in the residential program.

They report having used oxycodone "2 or 3 times" since discharge. They find that towards the end of the day and late at night they get uncomfortable feelings of mild opioid withdrawal (sweats, chills, malaise, feeling antsy). A friend told them that they should ask to go on methadone because buprenorphine is not working.

Question 2

What is the most appropriate approach?

- A. Because they have returned to use while taking buprenorphine and are a very high safety risk, insist that they return to inpatient or residential treatment for withdrawal management from buprenorphine. If they refuse, call their parents in to the session to tell them.
- B. Explain that residual sub-acute withdrawal is common, that it will pass with time, and discuss cravings management skills with them. Gently redirect them from med-seeking behavior.
- C. Advise them to increase their buprenorphine dose to 8 mg twice daily and review the supervision arrangement for the medication with their parents.
- D. Initiate methadone by referring them to a local clinic. Given their high-risk profile, the fact that they are almost 18 and their failure to experience effective treatment on buprenorphine, methadone maintenance is ethically and legally permissible.

2. Answer C. Advise them to increase their buprenorphine dose to 8 mg twice daily and review the supervision arrangement for the medication with their parents.

- Although 12mg total/day of buprenorphine can be an effective dose, some patients will require 16mg total/day. Doses above 16mg total/day are sometimes required for treatment and can be considered if the patient does not respond to the 16mg total/day dose. Even higher doses of buprenorphine may be required when fentanyl use is prominent.
- Return to use while using lower dose buprenorphine with inter-dose withdrawal symptoms is usually an indication that increasing the dose is appropriate. Note that the patient has not failed an **adequate** trial of buprenorphine, indicating that methadone is not an appropriate next step. Rather than escalate to a higher level of care, increasing the dose of buprenorphine is a good initial step.

Reference:

<http://www.naabt.org/images/petscan.jpg>

Question 3

Over the course of the next three months, the patient is mostly able to maintain recovery with a combination of intensive outpatient treatment and medication management in a specialized addiction treatment program. While they have not used opioids, other than buprenorphine-naloxone, for three months, they have smoked marijuana on 4 occasions over the last 12 weeks “to help calm me down and help me to sleep.” They have also started vaping nicotine “because that helps me to feel less stressed.”

With further discussion, they note that their mood has become more and more unstable, with more frequent periods of significant irritability, dysphoria, intermittent anxiety that is described as moderate in severity, all phase insomnia, feelings of guilt and low energy. Additionally, they note a persistent wish to die, and one time, noted that they felt like they wanted to jump from a bridge, leading their parents to take them to the emergency department for evaluation. Their parents ask you what they should do next. They are concerned because depression runs on both sides of the family, although they deny a family history of bipolar disorder on either side.

Question 3

Other than continuing their addiction treatment with intensive outpatient treatment and opioid agonist treatment, which is the best next step in their treatment?

- A. Continue to monitor their symptoms. Although they have been in recovery from opioids for three months, due to their marijuana and nicotine use, their symptoms may represent a substance-induced mood disorder that will resolve with more time.
- B. Diagnose major depressive disorder with anxiety and initiate treatment with fluoxetine or escitalopram.
- C. At this stage, diagnose bipolar 2 disorder and discuss initiation of an atypical anti-psychotic or mood stabilizer.
- D. Do not prescribe medication but refer for assessment for individual and family psychotherapy.

3. Answer B. Diagnose major depressive disorder with anxiety and initiate treatment with fluoxetine or escitalopram.

- Although possible, a substance-induced mood disorder is less likely in this case given the increasing intensity of symptoms in the setting of relatively infrequent use of marijuana and full abstinence from opioids. Nicotine use would not lead to the clinical picture described.
- As such, a diagnosis of a mood disorder would be appropriate. Given the clinical details of the case, and the family history provided, major depressive disorder is the most likely diagnosis, although bipolar 2 disorder cannot be ruled out at this time. Depression in adolescents often presents with irritability and mood instability rather than the more typical anhedonia seen in adults.
- Given the increasing severity of symptoms, and in particular, the presence of suicidal ideation, a more aggressive management approach with medications (possibly in conjunction with psychotherapy) is the most appropriate answer. Fluoxetine and escitalopram are both appropriate for adolescents with a diagnosis of major depressive disorder with anxiety.

Question 4

Which of the following is correct regarding co-occurring attention-deficit hyperactivity disorder and substance use disorders in adolescents?

- A. The rate of attention-deficit disorder in adolescents with substance use disorders is roughly equivalent to those without substance use disorders.
- B. Substance use in childhood or early adolescence predisposes patients to development of attention-deficit hyperactivity disorder in later adolescence
- C. Because of alterations in neural dopamine chemistry with active use of substances, higher doses of psychostimulant medication may be required when treating adolescents with concomitant ADHD and substance use disorders relative to those with ADHD and no substance use disorder.
- D. Given the high risk of misuse and abuse of psychostimulants, only psychosocial treatment options should be offered initially to adolescents in early recovery from substance use disorders.

4. Answer C. Because of alterations in neural dopamine chemistry with active use of substances, higher doses of psychostimulant medication may be required when treating adolescents with concomitant ADHD and substance use disorders relative to those with ADHD and no substance use disorder.

- Strong evidence indicates that early **and** adequate treatment of ADHD in childhood is a prevention strategy for reducing the risk of development of substance use disorders in adolescence and reduces the overall severity of substance use disorders once they manifest.
- Evidence suggests that treatment with stimulants, regardless of whether the adolescent also has a substance use disorder, is the most effective treatment. Data also indicates that treating ADHD in the presence of an SUD is challenging and often results in diminished response to medication.
- Likely, this difference in efficacy is related to disruption of steady state brain dopamine function inherent in both ADHD and SUDs, and evidence supports that higher doses of psychostimulants may need to be used when treating ADHD in the presence of addictive disease.

4. Answer C. Because of alterations in neural dopamine chemistry with active use of substances, higher doses of psychostimulant medication may be required when treating adolescents with concomitant ADHD and substance use disorders relative to those with ADHD and no substance use disorder.

- Answer A is incorrect because the rate of ADHD in adolescents with SUDs (24%) is over twice that of those without SUDs (approximately 11.5%)
- While ADHD does predict a higher risk of development of addictive disease, the reverse is not true as typically symptoms of ADHD will appear prior to initiation of substance use. Therefore, answer B is incorrect. However, many substances can lead to symptoms that mimic ADHD and will resolve with ongoing abstinence.

4. Answer C. Because of alterations in neural dopamine chemistry with active use of substances, higher doses of psychostimulant medication may be required when treating adolescents with concomitant ADHD and substance use disorders relative to those with ADHD and no substance use disorder.

The efficacy of psychosocial treatments for ADHD symptoms and behaviors in the adolescent and pediatric population is not well established and given the demonstrated benefits of pharmacotherapy for ADHD treatment in adolescents with SUDs, monotherapy with psychosocial treatments is not appropriate.

[Heval Özgen](#), [Renske Spijkerman](#), [Moritz Noack](#), [Martin Holtmann](#), [Arnt Schellekens](#), [Søren Dalsgaard](#), [Wim van den Brink](#), and [Vincent Hendriks](#). *Treatment of Adolescents with Concurrent Substance Use Disorder and Attention-Deficit/Hyperactivity Disorder: A Systematic Review*. [J Clin Med](#). 2021 Sep; 10(17): 3908.

Vacher C, Goujon A, Romo L, Purper-Ouakil D. Efficacy of psychosocial interventions for children with ADHD and emotion dysregulation: a systematic review. *Psychiatry Res*. 2020 Sep;291:113151. doi: 10.1016/j.psychres.2020.113151. Epub 2020 May 30. PMID: 32619822.

Tourjman V, Louis-Nascan G, Ahmed G, DuBow A, Côté H, Daly N, Daoud G, Espinet S, Flood J, Gagnier-Marandola E, Gignac M, Graziosi G, Mansuri Z, Sadek J. Psychosocial Interventions for Attention Deficit/Hyperactivity Disorder: A Systematic Review and Meta-Analysis by the CADDRA Guidelines Work GROUP. *Brain Sci*. 2022 Aug 1;12(8):1023. doi: 10.3390/brainsci12081023. PMID: 36009086; PMCID: PMC9406006.

Question 5

A 13-year-old cis-gendered male is brought to your office by his mother for a routine annual examination. When you question the patient about substance use, the mother explains that the patient's father drinks heavily and smokes marijuana in their home, but the patient has never seemed interested. Just before you leave the examination room, the mother asks to speak with you in private. She explains that she found a dirty rag in her son's room and asks for information about inhalant use. ***Which one of the following would be accurate advice?***

- A. Children who misuse inhalants are more likely to use other illicit drugs
- B. A urine drug test can be used to detect many forms of inhalants.
- C. Physical examination typically demonstrates whether a patient is using inhalants.
- D. The mean age of first-time inhalant use is 15 years of age

5. Answer A. Children who abuse inhalants are more likely to use other illicit drugs.

- National surveys indicate that nearly 21.7 million Americans aged 12 and older have used inhalants at least once in their lives. NIDA's Monitoring the Future (MTF) survey reveals that 13.1 percent of 8th-graders have used inhalants.
- Inhalants are undetectable on urine toxicology. The symptoms of inhalant use are not obvious. Occasionally from huffing there may be erythema around the lips and chin, but often nothing is obvious. The mean age of first-time inhalant use is around 13 years old, or 8th grade.

NIDA Website: <https://www.drugabuse.gov/publications/research-reports/inhalants/what-scope-inhalant-abuse>

Question 6

The patient returns approximately two years later for a routine physical examination, and his mother notes that in addition to use of e-cigarettes, she found a glass pipe with a burned residue and a strong smell of cannabis. You speak with the patient and his family to learn more about the patient. His mother notes that she is very surprised that her son is using marijuana, noting “I just feel like I don’t know my son anymore.”

She describes him as being friendly and outgoing and is a natural leader because he is assertive and able to speak his mind easily. She mentions that the school has called her with complaints about his not being in class when he should be and noting that he faces suspension if he does not improve his grades.

Question 6 (cont.)

When you speak with the patient, he tells you that he recently quit sports to hang out at the beach after school. “I hate school, and I just don’t want to be there.” He also notes that his mother is almost never home and spends a lot of time with her friends. “And my dad is always too drunk and high to even know I’m there half the time.” He has no siblings and spends most of his time playing video games in his room.

You ask the patient if he has any questions about drugs and alcohol, and he notes, “Dude, I go to this uber religious school that thinks no one uses drugs or ever has sex. I know nothing about drugs except that weed makes me feel amazing.”

At the end of the meeting, the patient’s mother asks if you are worried about his drug use getting worse.

Question 6 (cont.)

Based on this clinical encounter, which of the patient's characteristics is least consistent with further escalation of his drug use?

- A. Feeling disconnected from his family and playing video games in his room.
- B. His attendance at a religious school whose minimal education about substances emphasizes the dangers of use.
- C. The fact that he is a natural leader who is very assertive in social situations.
- D. His recent cessation of sports at school.

6. Answer C. The fact that he is a natural leader who is very assertive in social situations.

- At an individual level, low assertiveness, poor self-esteem and poor behavioral self-control are all risk factors that may contribute to the risk of escalation among adolescents.
- Additionally, feeling disconnected from family, reduced participation in school and lack of knowledge about the risks of substance use all predict further escalation.

Question 7

Regarding primary prevention of substance use and substance use disorders in adolescents, which of the following is FALSE?

- A. Project D.A.R.E. has proven effective as a primary prevention strategy.
- B. Primary prevention strategies for adults should start in the adolescent population given the fact that most adults who later develop an SUD initiate substance use in adolescence.
- C. Bonding to conventional institutions such as schools or churches provides a powerful protective factor and lack of such bonding a powerful risk factor.
- D. Social resistance training and skills development, such as the ability to resist “peer pressure,” is an effective protective factor.

7. Answer A. Project D.A.R.E. has proven effective as a primary prevention strategy.

- The below referenced study examined the impact of Project DARE (Drug Abuse Resistance Education), a widespread drug-prevention program, 10 years after administration. Project DARE philosophy centers on five core values: responsibility, effort, attitude, community and honor. And focuses on four main components: wilderness expedition, challenge activities, community service and school.
- A total of 1,002 individuals who in 6th grade had either received DARE or a standard drug-education curriculum, were re-evaluated at age 20. Few differences were found between the 2 groups in terms of actual drug use, drug attitudes, or self-esteem, and in no case did the DARE group have a more successful outcome than the comparison group.

References

Lynam DR, Milich R, Zimmerman R, Novak SP, Logan TK, Martin C, Leukefeld C, Clayton R (1999) Project DARE: no effects at 10-year follow-up. *J Consult Clin Psychol.* Aug;67(4):590-3.

Griffin KW and Botvin GJ (2010) Evidence-Based Interventions for Preventing Substance Use Disorders in Adolescents

[Child Adolesc Psychiatr Clin N Am. 2010 Jul; 19\(3\): 505–526.](#)

7. Answer A. Project D.A.R.E. has proven effective as a primary prevention strategy.

- Since most adults who later develop substance use disorders initiate use in adolescence, primary prevention programs for SUD's in general must begin in adolescence to have a meaningful impact.
- Bonding to conventional institutions and strong relationships with adult figures in those institutions (teachers, etc.) are strong protective factors for not initiating substance use.
- Social resistance training to teach adolescents how to resist pressure from peers to use substances is an evidence-based prevention strategy that is important in general skills training for teens.

References

Lynam DR, Milich R, Zimmerman R, Novak SP, Logan TK, Martin C, Leukefeld C, Clayton R (1999) Project DARE: no effects at 10-year follow-up. *J Consult Clin Psychol.* Aug;67(4):590-3.

Griffin KW and Botvin GJ (2010) Evidence-Based Interventions for Preventing Substance Use Disorders in Adolescents [Child Adolesc Psychiatr Clin N Am.](#) 2010 Jul; 19(3): 505–526.

Special Topics

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Question 1

An occupational therapist is seeing a patient with tenosynovitis, and as the addiction medicine specialist on call, he consults with you about a 43-year-old male who admits to playing video games up to 20 hours per day, causing a repetitive use injury. ***Which of the following is not one of the proposed DSM5 criteria for Internet Gaming Disorder?***

- A. Withdrawal symptoms when gaming is taken away or not possible. May include sadness, anxiety, irritability or other symptoms.
- B. The use of gaming to relieve negative moods, such as guilt or hopelessness
- C. The person experiences euphoria when gaming.
- D. Deceiving family members or others about the amount of time spent on gaming

1. Answer C. The person experiences euphoria when gaming.

- The DSM5 identifies Internet Gaming Disorder as an area requiring further study. Criteria mirror those for substance use disorders, including tolerance/withdrawal; loss of control; use despite negative consequences; and functional impairment.
- Experiencing euphoria is not a diagnostic criterion. As with substance use disorders, internet gaming must cause significant distress to be diagnosed as a disorder

1. Answer C. The person experiences euphoria when gaming.

According to DSM-5, the proposed clinical diagnosis of IGD as indicated by endorsing five (or more) of the following nine criteria: “(1) preoccupation with online/offline gaming (i.e., preoccupation); (2) experience of unpleasant symptoms when gaming is taken away (i.e., withdrawal); (3) the need to spend increasing amounts of time engaged in games (i.e., tolerance); (4) unsuccessful attempts to control participation in games (i.e., loss of control); (5) loss of interest in previous hobbies and entertainment as a result of, and with the exception of games (i.e., give up other activities); (6) continued excessive use of games despite knowledge of psychosocial problems (i.e., continuation); (7) deceiving family members, therapists, or others regarding the amount of gaming (i.e., deception); (8) use of games to escape or relieve negative moods (i.e., escape); and (9) jeopardizing or losing a significant relationship, job, or education or career opportunity because of participation in games (i.e., negative consequences)

Question 2

After completing a new patient evaluation, you diagnose an unspecified mood disorder (major depressive disorder versus bipolar disorder) and a likely internet gaming disorder (IGD) and discuss treatment options. **Which of the following is the least appropriate initial treatment intervention based on the limited evidence available?**

- A. Initiate treatment of both the unspecified mood and internet gaming disorders with bupropion and naltrexone.
- B. Initiate aggressive medical treatment of the patient's mood disorder. Do not refer for specialized addictions treatment as the mood disorder is likely the primary issue, and there are no centers that specialize in treatment of IGD in your area.
- C. Evaluate for a gambling disorder and treat if appropriate.
- D. Recommend psychosocial interventions, including cognitive-behavioral therapy.

2. Answer B. Initiate aggressive medical treatment of the patient's mood disorder. Do not refer for specialized addictions treatment as the mood disorder is likely the primary issue, and there are no centers that specialize in treatment of IGD in your area.

- Although the evidence for treatment of internet gaming disorder is limited , some open label trials have been published that demonstrate the efficacy of bupropion, particularly with co-morbid depression, in reducing overall gaming time, improving functional outcomes and reducing video cue-induced brain activity in the dorsolateral pre-frontal cortex. Given the ongoing potential for a bipolar disorder diagnosis, bupropion is an attractive option as the rate of switch to mania is much lower than other antidepressants. Note that the use of bupropion in this case is not approved by the FDA and is “off-label.”
- Several well-designed studies have demonstrated efficacy of 8+ sessions of cognitive behavioral therapy, particularly with a co-morbid mood disorder, even if the focus of such therapy is not on the addiction per se.

2. Answer B. Initiate aggressive medical treatment of the patient's mood disorder. Do not refer for specialized addictions treatment as the mood disorder is likely the primary issue, and there are no centers that specialize in treatment of IGD in your area.

- Internet gaming and gambling disorders are frequently co-morbid, and both can be treated simultaneously. Some evidence exists for use of naltrexone in treatment of IGD. While much more evidence exists for its use in gambling disorder, both treatments are “off-label.” Given these considerations, naltrexone may be a good option for co-morbid IGD and gambling disorders.
- As with other addictions, treating just the psychiatric symptoms may improve some functional outcomes related to the mood disorder, but not to the addiction itself. Concomitant treatment, ideally in a single treatment program, will likely produce the best functional outcomes in total.

Miller et al. Principles of Addiction Medicine. Sixth Edition (2019). Pages 658-661

Wang Q, Ren H, Long J, Liu Y, Liu T. Research progress and debates on gaming disorder. Gen Psychiatr. 2019 Jul 18;32(3):e100071. doi: 10.1136/gpsych-2019-100071. PMID: 31423477; PMCID: PMC6678059.



Question 3

While treating a 58-year-old woman for an alcohol use disorder, she presents for a routine three-month follow-up noting that she has been experiencing increasing financial distress and that her house is under foreclosure.

You are quite surprised to hear of this development as she was doing well when you last saw her. Also, you believe her to be a well-compensated executive at a large healthcare company and did not expect she would present with financial stressors. As she is leaving, she breaks into tears and tells you that she is worried she has a gambling disorder.

Question 3

Upon further inquiry, the patient notes that she started gambling about three months ago and has been spending more and more money and time with each visit to the casino. She tried to limit her trips to just Saturdays or Sundays, but she is now visiting at least 4 times per week. She notes increasing irritability that is relieved immediately when she goes through the door of the casino.

She finds herself driving five hours round trip during the weekdays to gamble, missing important meetings and falling behind on her work duties. To date, she has been able to conceal her losses from her spouse, noting “sometimes, I go back to the casino the day after a big loss and recoup a lot of my money. But it doesn’t happen every day.” She is amassing a large amount of debt and is worried how long she can keep this from her spouse.

Question 3

Which of the following characteristics of gambling disorder in women is **false** compared to men?

- A. Women progress to pathologic gambling more slowly than men
- B. Compared to men, women have higher rates of "non-strategic" versus "strategic" gambling
- C. Most women with gambling disorder are married
- D. The prevalence of gambling disorder is lower in women as compared to men

3. Answer A. Women progress to pathologic gambling more slowly than men

- Women, who constitute approximately 32% of disordered gamblers in the United States, seem to progress ***more quickly*** than do men, a phenomenon known as "**telescoping**." The lifetime prevalence is about 0.2% for females and 0.6% for males.
- The other answers represent typical characteristics of gambling disorders in women.

Sources: The ASAM Essentials of Addiction Medicine/[edited by] Abigail J. Herron, Timothy Koehler Brennan, Second Edition 2015. Diagnostic and Statistical Manual of Mental Disorder (DSM-5)-Fifth Edition. Arlington, VA. American Psychiatric Association, 2013.

Question 4

Which of the following is *not* included in the DSM-5 Diagnostic Criteria of Gambling Disorder?

- A. It is included under the category of Non-Substance Related Disorders
- B. The individual should exhibit at least two of the nine criteria for a 12-month period
- C. After losing money gambling, patient often returns another day to get even ("chasing" one's losses)
- D. The gambling behavior is not better explained by a manic episode

4. Answer B. The individual should exhibit at least two of the nine criteria for a 12-month period

Unlike criterion A of other SUDs, which require at least two criteria occurring within a 12-month period, gambling disorder **requires four (or more)** of these criteria during the same duration:

- Need to gamble with increasing amount of money to achieve the desired excitement (tolerance)
- Restless or irritable when trying to cut down or stop gambling (withdrawal)
- Repeated unsuccessful efforts to control, cut back on or stop gambling
- Frequent thoughts about gambling (such as reliving past gambling experiences, planning the next gambling venture, thinking of ways to get money to gamble)
- Often gambling when feeling distressed
- After losing money gambling, often returning to get even (referred to as “chasing” one’s losses)
- Lying to conceal gambling activity
- Jeopardizing or losing a significant relationship, job or educational/career opportunity because of gambling
- Relying on others to help with money problems caused by gambling

Question 5

Which of the following can mimic a gambling use disorder?

- A. Treatment of a seizure disorder in a 27-year-old male patient with gabapentin
- B. Treatment of multiple sclerosis in a 42-year-old female patient with β -interferon
- C. Treatment of attention-deficit hyperactivity disorder in an 18-year-old with dextroamphetamine-amphetamine (Adderall)
- D. Treatment of Parkinson's disease in a 56-year-old male patient with dopamine agonists

5. Answer D. Treatment of Parkinson's disease in a 56-year-old male patient with dopamine agonists

- Patients taking dopaminergic medication for Parkinson's disease may experience urges to gamble. If such symptoms dissipate when the medication dose is reduced or stopped, diagnosis of gambling disorder would not be indicated.
- Although psychostimulant medication increases dopamine levels as well, it has not been classically associated with increased gambling. The other options are not known to affect gambling behavior.

Source: Diagnostic and Statistical Manual of Mental Disorder (DSM-5)-Fifth Edition. Arlington, VA. American Psychiatric Association, 2013.

Question 6

Regarding addictive disease in the LGBTQI population, which of the following is false ?

- A. Rates of both tobacco and e-cigarette use are greater among LGB patients than matched heterosexual counterparts.
- B. Sexual minorities with SUDs are more likely to have additional co-occurring psychiatric disorders.
- C. Recent research demonstrates that trans-women are at higher risk of overall illicit substance use than trans-men.
- D. LGBTQI individuals, especially trans youth, are at a much higher risk of death by suicide than matched heterosexual and cis-gendered counterparts.

6. Answer C. Recent research demonstrates that trans-women are at higher risk of overall illicit substance use than trans-men.

The evidence-based treatment of addictions in the LGBTQI population is sparse but growing. However, prevailing data shows:

- LGBTQI individuals are at a much higher risk of suicidal ideation and death by suicide than matched heterosexual and cis-gendered counterparts, largely due to minority stress, trauma and internal/external stigmatization.
- Co-occurring disorders occur at a higher rate among LGB and other sexual minorities.
- Rates of tobacco and e-cigarette use are higher among LGB individuals.

Source: Ruppert R, Kattari S, Sussman S. Review: Prevalence of Addictions among Transgender and Gender Diverse Subgroups. [Int J Environ Res Public Health](#). 2021 Aug; 18(16): 8843.

Substance Use and SUDs in LGBTQ* Populations. National Institute on Drug Abuse. <https://nida.nih.gov/research-topics/substance-use-suds-in-lgbtq-populations>

6. Answer C. Recent research demonstrates that trans-women are at higher risk of overall illicit substance use than trans-men.

- Data regarding rates of addiction among transgender and gender non-conforming patients is mixed, but evidence generally supports that trans persons generally have lower rates of addiction compared to both their LGB and cis-gender counterparts. One exception may be methamphetamine and possibly, alcohol, use, where trans-women, especially those who are HIV positive, report more use than matched counterparts. **However, general illicit drug use rates are higher in trans-men than trans-women.**

Sources:

Ruppert R, Kattari S, Sussman S. Review: Prevalence of Addictions among Transgender and Gender Diverse Subgroups. [Int J Environ Res Public Health](#). 2021 Aug; 18(16): 8843.

Substance Use and SUDs in LGBTQ* Populations. National Institute on Drug Abuse. <https://nida.nih.gov/research-topics/substance-use-suds-in-lgbtq-populations>

Question 7

Regarding racial disparities in treatment of addictions, which of the following is true?

- A. When considering opioid agonist treatment for opioid use disorders, black patients are offered buprenorphine at the same rates and continue on the medication for approximately the same length of time as their white counterparts.
- B. Black patients are more likely to finish substance use disorder treatment and are less likely to be discharged before treatment is complete compared to their white counterparts.
- C. While almost 20% of individuals identified as needing treatment for addictions receive it, 10% or less of black and Latinx patients diagnosed with SUDs do so.
- D. Disparities in incarceration rates for illicit substances do not exist between black and white individuals.

7. Answer C. While almost 20% of individuals identified as needing treatment for addictions receive it, 10% or less of black and Latinx patients diagnosed with SUDs do so.

- Based on 2018 data, approximately 18% of individuals identified as needing treatment for addictions received it. These gaps are greater for minoritized communities. For Black and Latinx groups in the US, 90% and 92%, respectively, diagnosed with a SUD did not receive addiction treatment.
- Evidence has consistently demonstrated that given similar clinical circumstances, black patients are offered opioid agonist treatment less often and continued for shorter durations of time than their white counterparts. Given the life-saving nature of these medications, this disparity has led to preventable deaths among the black population.
- Even when black patients access treatment for addictions, engagement indicators remain low, with black patients being less likely to complete treatment programs across the spectrum of care and more likely to be discharged from treatment for a variety of different reasons than their white counterparts.

<https://medicine.yale.edu/news-article/racial-inequities-in-treatments-of-addictive-disorders/>

Huiru Dong, PhD; Erin J. Stringfellow, PhD; W. Alton Russell, PhD; Mohammad S. Jalali, PhD: Racial and Ethnic Disparities in Buprenorphine Treatment Duration in the US. *JAMA Psychiatry*. 2023;80(1):93-95. doi:10.1001/jamapsychiatry.2022.3673

<https://healthpolicy.usc.edu/evidence-base/racial-disparities-in-accessing-treatment-for-substance-use-highlights-work-to-be-done/>

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Regarding incarceration rates, substantial evidence indicates that criminal penalties and sentences for black versus white individuals are vastly different. Policies, like the Anti-Drug Abuse Act of 1986, created the 100:1 sentencing disparity for crack cocaine versus powder cocaine, leading to disproportionately longer sentencing for Black people. Although recent attempts to change drug policy to address these disparities have been made, inequities persist. Studies have also shown that despite uniform rates of substance use among racial and ethnic populations, there is a disproportionate rate of drug arrests for black people. For example, cannabis use is equally prevalent among black and white people, yet black people are 3.64 times as likely to be arrested for possession.

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