Co-occurring Psychiatric & Substance Use Disorders in Adolescents & Young Adults

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Co-Occurring Psychiatric Disorders and Substance Use Disorder (SUD)
SUDs are more common in adolescents with psychiatric disorders

**Lifetime prevalence of SUD in adolescents with & without psych illness (NCS-A)**

- **Drug UD**
  - Psych illness: 15%
  - No psych: 10%

- **Alcohol UD**
  - Psych illness: 10%
  - No psych: 5%

**Conway 2016**

Most adolescents with co-occurring psychiatric and SUD do not receive SUD treatment

**Annual Treatment for Adolescents with Co-occurring Major Depressive Episode and SUD**

**Lu 2021**
Racial/ethnic Adolescent SUD Treatment Disparities

Past Year Service Use for Adolescents with a SUD (NSDUH 2005-2008)

- Non-Latino White
- Latino
- Black
- Asian

<table>
<thead>
<tr>
<th>Percentage (%)</th>
<th>SUD Treatment</th>
<th>Informal Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Latino White</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>Latino</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>Black</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>Asian</td>
<td>9%</td>
<td>6%</td>
</tr>
</tbody>
</table>

*p<0.05

Alegria 2011

Assessing Co-Occurring Psychiatric Disorders
Assess Psychiatric Symptoms in the Context of Substance Use

Psychiatric Illness

Substance use

The details of their substance use matter (example—cannabis)

- There are many different types of cannabis products.
- Cannabis products have different levels of THC content (potency). The risk of adverse effects from cannabis use increases with increased levels of THC.¹

1980's: 3% THC
2014: 12% THC²

Edibles

Dabs—Wax and Shatter
Variable: 25% to 75% THC³

Hash oil

¹Volkow 2014, ²ElSohly 2016, ³Raber 2015
Psychiatric symptoms associated with acute intoxication

- **Cannabis**
  - Cognition
    - Impaired short-term memory
    - Impaired attention, judgment
  - Anxiety and paranoia

Psychiatric symptoms associated with cannabis withdrawal

- **Cannabis withdrawal syndrome**
  3 or more symptoms that develop within one week of stopping heavy cannabis use
  - Irritability, anger, or aggression
  - Nervousness or anxiety
  - Sleep difficulty (insomnia, disturbing dreams)
  - Depressed mood
  - Decreased appetite or weight loss
  - Restlessness
  - One or more physical symptoms causing significant discomfort: abdominal pain, shakiness/tremor, sweating, fever, chills, or headaches

NIDA Marijuana Research Report 2020
Psychiatric symptoms associated with opioid withdrawal

- **Opioid withdrawal syndrome**
  3 or more symptoms that develop within minutes to several days after stopping use or receiving an opioid antagonist
  - Dysphoric mood
  - Insomnia
  - Nausea or vomiting
  - Muscle aches
  - Lacrimation or rhinorrhea
  - Pupillary dilation, piloerection, or sweating
  - Diarrhea
  - Yawning
  - Fever

- COWS also includes anxiety (“anxiety or irritability”)

Psychiatric symptoms associated with regular substance use

- **Cannabis Use in Adolescence**
- **Young Adulthood**

- 1.4 times more likely to have depression
- 3.5 times more likely to attempt suicide

Gobbi 2019
Youth with substance induced psychosis are at risk to develop a persistent psychiatric disorder

Substance induced psychosis → 24 to 32% → Schizophrenia or Bipolar Disorder → 2 to 3 years

*Individuals 16 to 25 years old are at highest risk for converting from substance induced psychosis to schizophrenia*

Starzer 2018

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Assess for Risky Behaviors—Overdose

Overdose=ingestion of an excessive amount of a substance

Overdoses can be fatal when associated with impaired level of consciousness and respiratory failure
Fatal Adolescent Drug Overdose in the United States

**Drug Overdose Deaths in the United States in 2021**

Overall population: 101,954 (↑ 11.5% from 2020)
Adolescents (14 to 18 years): 1146 (↑ 20% from 2020)

**Drug Overdose Deaths for Adolescents by Substance**

Friedman 2022

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Fatal Adolescent Drug Overdose in the United States by Race/Ethnicity

Friedman 2022
History of non-fatal overdose at initial evaluation for SUD treatment

<table>
<thead>
<tr>
<th>Overdose History</th>
<th>Intention of Overdose</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD</td>
<td>No OD</td>
</tr>
<tr>
<td>29%</td>
<td>71%</td>
</tr>
</tbody>
</table>

Yule, J Clin Psych; 2018; 79(3):17m1678

Psychiatric characteristics and disorders associated with drug overdose

- At baseline—characteristics associated with history of overdose
  - Eating disorder OR 5.1 (1.4, 18)
  - Psychiatric hospitalization OR 3.0 (1.5, 6.2)
- After receiving substance use treatment
  - Mood disorder not otherwise specified OR 9.2 (1.4, 62)

Yule, J Clin Psych; 2018; 79(3):17m1678
Yule, Am J Addict; 2019; 28(5):382-389
Timeline of psychiatric symptoms and substance use can help clarify co-morbidity

Continue to evaluate mental health symptoms as adolescents engage in care over time.

Sometimes adolescents and/or families are reluctant to acknowledge a co-occurring disorder

- Examples:
  - Preference to align with substance induced psychotic disorder over schizophrenia
  - Attribute all of the substance use to untreated symptoms of the psychiatric disorder, not ready to acknowledge a co-occurring substance use disorder
When treating co-occurring disorders “There is no wrong door”

- Standard of care is integrated treatment for both psychiatric and substance use disorders
- However, integrated treatment can be hard to find
Stay Patient and Family Centered

- The overall goal is to get the patient to come back!
- Stay patient centered and engage them around their concerns
- Patients and parents have waxing/waning motivation to change

Providing Trauma Informed Care is Really Important because Adverse Childhood Events (ACE) are Common

<table>
<thead>
<tr>
<th>Adults with 1+ ACE</th>
<th>Adults with 4+ ACE</th>
<th>Adults with SUD with 4+ ACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>No 39%</td>
<td>No 16%</td>
<td>Yes 84%</td>
</tr>
<tr>
<td>Yes 61%</td>
<td>Yes 83%</td>
<td></td>
</tr>
<tr>
<td>No 17%</td>
<td>Yes 17%</td>
<td></td>
</tr>
</tbody>
</table>

National Center for Injury Prevention and Control, CDC
Practice Considerations—Challenges for Patients

- Trauma survivors report distress in care settings related to:
  - Trust
  - Safety
  - Sense of agency
- Clinical experiences (physical touch, a provider’s appearance, or loud noises) can be reminders of a traumatic event

Spencer 2021

Practice Considerations—Things to do to ↑ engagement

- Develop trust over time
- Provide care in an unhurried fashion
- Talk about procedures before doing them
- Validate and normalize concerns
- Provide choices if possible to help patients retain a sense of autonomy

Spencer 2021
Practice Considerations—↓ risk of additional trauma exposure

- Be mindful when gathering collateral and including supports in care
- Decrease risk of additional trauma exposure
  - Address housing and financial circumstances that increase vulnerability to victimization
  - Psychoeducation on healthy relationships
  - Connect to additional community resources (hotlines, shelters, advocacy groups)

Spencer 2021
Pharmacokinetic Considerations

- Combustible cigarettes induce CYP1A2
  - CYP1A2 substrates: olanzapine, clozapine, haloperidol, caffeine
- Methadone is metabolized by CYP3A4, 2B6, 2C19, 2C9, 2D6
  - Always check for medication/medication interactions

McCance-Katz 2010

Co-occurring ADHD and SUD

- **General clinical recommendations**
  - Low level substance use → continue to treat ADHD
  - More severe SUD → address SUD first
    - Once stabilizing treat with extended-release stimulants or non-stimulants
  - If using stimulant medication:
    - If possible, involve a support person to monitor adherence
    - Initially frequent follow-up to monitor adherence and response
Co-occurring Depression and SUD

- **Fluoxetine 20 mg daily**\(^1\text{-}^4\) & **Sertraline 100 mg daily**\(^5\)
  - For most studies both the active medication and placebo groups had improvement in symptoms of depression and substance use with **no between group differences**
  - **Riggs 2007**—floxetine group had greater improvement in symptoms of depression, both groups had improvement in substance use

\(^1\text{Riggs 2007, 2Findling 2009, 3Cornelius 2010, 4Cornelius 2009, 5Deas 2000}\)

**Meta-analysis** (Zhou 2015)

Antidepressant medication may help symptoms of depression, less impactful on substance use

Co-occurring Serious Mental Illness—Bipolar Disorder and Psychosis

- **Bipolar disorder**—published RCT with Lithium (Geller 1998)
  - 25 adolescents randomized to lithium (0.9 mEq/L) or placebo for 6 weeks
  - Active treatment associated with improvement in substance use and functioning
  - No difference in mood changes between active treatment and placebo

- **General clinical guidance:**
  - Treat symptoms of bipolar disorder and psychosis with medication
  - Consider medication/substance interactions and risks associated with inconsistent medication adherence
General Strategy for Psychopharmacotherapy for Adolescents with SUD

- When first engaging in care:
  - Frequent appointments
  - Small quantities of medication
- Involve family
  - To monitor symptoms and behavior between appointments
  - To support treatment engagement
- Evidence-based therapy for SUD is standard of care for treatment of adolescent SUD with and without a co-occurring psychiatric disorder

Other treatment plan considerations for adolescents & young adults with co-occurring disorders

**Anxiety**

- Identify thought distortions and avoidant behavior
- Build relaxation skills
- Social anxiety—consider individual therapy before group therapy
Level of Care and Educational Considerations

- Systems often evaluate adolescents with co-occurring disorders based on the criteria used for the disorders separately without accounting for the fact that they are co-occurring and therefore more complicated
  - Treatment level of care
  - Educational accommodations

Prescription Medication Misuse Prevention & Harm Reduction
Early Adolescent Substance Use During the Pandemic

- N=1,079 from the ABCD Study
- Mean age 11.8 years
- Statically significant changes:
  - ↑ prescription drug misuse
  - ↑ nicotine use
  - ↓ alcohol use

When misused, medications are often shared

Source of Prescription Stimulant for Misuse
(12 to 17 year olds)

- Used own prescription: 22%
- Received for free from friend/relative: 49.5%
- Bought from friend/relative: 12.6%
- Took from friend/relative without asking: 7.6%
- Other: 7.2%
Medication Guidance

- Patient and Family Guidance
  - Take your medication as prescribed
  - Do not share your medication
  - Role play what to do if asked to share medication

- Safe storage
  - Medication safe
  - Stored “out of sight”

- Periodic parent monitoring of medication adherence

- Discard unused medication every 3 to 4 months

Harstad 2014, Engster 2019

Adolescents & Young Adults may use pressed pills that they think are prescription medication

Dea.gov
Discuss naloxone with all patients with any substance misuse

- Naloxone—opioid antagonist, temporarily reverses an opioid overdose
  - “I like to talk to all families about how to recognize and respond to an opioid overdose. I hope that you will never need to use this information, but want to make sure that you are prepared just in case”

Winer, in press

SUD and Co-Morbidities

- Assessing Co-occurring Psychiatric Disorders
  - It may take time to clarify co-occurring psychiatric diagnosis
  - It is very important to stabilize the co-occurring opioid use disorder

- Treatment of Psychiatric and Substance Use Disorders
  - Frequent appointments while both psychiatric and SUD are initially stabilizing
  - Therapy is important!

- Prescription Medication Misuse Prevention
  - Discuss safe medication storage with all patients!

Questions?