

# Youth Substance Use

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# Disclosure

I have no financial conflicts of interest to disclose.

# Topics

- Adolescence as a period of risk for substance use initiation
- Patterns of Substance Use
- Assessment
- General Treatment Guidelines
- Conclusion

# A Review of DSM-V SUD Criteria

- Mild (2-3 Symptoms), Moderate (4-5 Symptoms), Severe (6+ Symptoms)
- A problematic pattern of use leading to clinically significant impairment or distress, occurring within a 12 month period

# A Review of DSM-V SUD Criteria

- Taken in larger amounts or for longer periods than intended
- Persistent or unsuccessful efforts to cut down or control use
- Increased time spent on efforts to obtain substance of use
- Cravings
- Recurrent use results in failure to fulfill major role obligations
- Recurrent use results in persistent social or interpersonal problems
- Important social, occupational, or recreational activities given up
- Recurrent use in situations where it is physically dangerous
- Use despite knowing of physical or psychological sequelae
- Tolerance
- Withdrawal

# Adolescence (12-17)

- Puberty
- Continued brain development (myelination and pruning) means relatively immature inhibition of risk taking and reward seeking behavior (Luna et al. 2013)
- New life contexts: high school, college, first job, sports
- New “adult” social roles: romantic relationships, driving, contributing to household
- Substance use increases risk of addiction and likely causes detrimental effects on neurodevelopment and neurochemistry (Lisdahl et al. 2018)
- Substance use is associated with neurocognitive defects (Morin et al. 2019)
- Therefore, substance use tends to start when the brain is at a vulnerable state and has a potential to further destabilize neurodevelopment

# Patterns of Use

- Monitoring the Future (MTF)
  - Collects substance use data annually from 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders
- National Survey on Drug Use and Health (NSDUH)
  - Collects substance use data annually from individuals 12 y/o +

# Patterns of Use

- Primary periods for initiation 13-14 (puberty) and 17-18 (late adolescence), (Degenhardt et al. 2016)
- Adolescents most often use alcohol, nicotine, and cannabis
- Cocaine and opiate use is relatively lower (Miech et al. 2017)
- Cannabis most used illicit drug from ages 13-17 y/o
- 2016 MTF Study: Cannabis used in the last 30 days: 5% of 8<sup>th</sup> graders, 14% of 10<sup>th</sup> graders, and 22% of 12<sup>th</sup> graders
- In contrast, for heavy ETOH use in the last 30 days: 3% of 8<sup>th</sup> graders, 9.7% of 10<sup>th</sup> graders, and 15.5% of 12<sup>th</sup> graders
- Prevalence of episodic heavy drinking and cigarette smoking is decreasing
- Use of cannabis and vaping is increasing



# Patterns of Use

- Overall differences in gender, race, and ethnicity regarding youth substance use are not extensive
- Gender Differences: In recent years, the difference between gender in regards to substance use is minimal. The major difference is that in 12<sup>th</sup> grade, males have significantly more prevalence of cigarette smoking (12.7% vs 8.1%) (Miech et al. 2017)
- Race / Ethnicity: Caucasian youth had generally higher rates of cigarette smoking and consuming >5 drinks in a row. African American students have a higher prevalence of marijuana use. Hispanic students in the 12<sup>th</sup> grade tended to have higher annual rate of illicit drugs (crack and crystal methamphetamines) (Miech et al. 2017)

# SUD Assessment for Youth

- Challenges: Short history of use, living with parents, developmentally different presentations and interpretations of tolerance and withdrawal

# SUD Assessment for Youth

- Step 1: Screening (Winters et al. 2018)
  - Brief questions on recent history of drug use
  - Situations in which drug use is common
  - Decisional Balance Exercise (positives and negatives of use)
    - Why is the youth using?
    - Have there been any negative consequences?

# SUD Assessment for Youth

- Step 2: Comprehensive Assessment
  - Indicated with positive screening
  - Age of onset, Frequency, Quantity, Negative Life Consequences, Circumstances and Contexts of use, Triggers, Comorbid Mental Health Symptoms, Readiness for Treatment
  - Varying Approaches
    - Self Report
    - Parent Report
    - Drug Testing
    - Clinical Observation
  - When appropriate, use standardized assessment instruments specifically designed for use with pediatric population

# SUD Assessment for Youth

- ASAM Criteria Assessment Dimensions
  - Acute Intoxication and/or Withdrawal Potential
  - Biomedical Conditions and Complications
  - Emotional, Behavioral, Cognitive Conditions and Complications
  - Readiness to Change
  - Relapse, Continued Use, or Continued Problem Potential
  - Recovery / Living Environment

# Treatment Options

- ASAM Criteria Adolescent Levels of Care
  - Level 0.5: Early Intervention
  - Level 1: Outpatient Services
  - Level 2: Intensive Outpatient / Partial Hospitalization
  - Level 3: Residential / Inpatient Services
  - Level 4: Medically Managed Intensive Inpatient Services (Hospital)

# Treatment Options

- Important to recognize chronic and relapsing nature of SUD
- Treatment approaches are usually multimodal
- Therapeutic Approaches: Motivational Interviewing, Cognitive Behavioral Therapy, Family and Multisystemic Therapies, Community Reinforcement and Behavioral Approaches, Contingency Management
- Pharmacotherapies
  - Alcohol – Disulfiram, Acamprosate, Naltrexone, Topiramate
  - Nicotine – Bupropion, Nicotine Patch
  - Opiates – Methadone, Buprenorphine, Naltrexone

# Summary

- Youth substance use comes in presentations and contexts unique from adults
- Comorbidity with psychiatric mental health concerns can be a complicating factor
- ASAM Criteria is a guide to assess and determine placement suitability
- Treatment is prioritized with therapeutic options
- There is a role for pharmacotherapy in comorbid psychiatric disorders, opiate, nicotine, and alcohol use disorders