



Adolescent SUD: Diagnosis and Treatment

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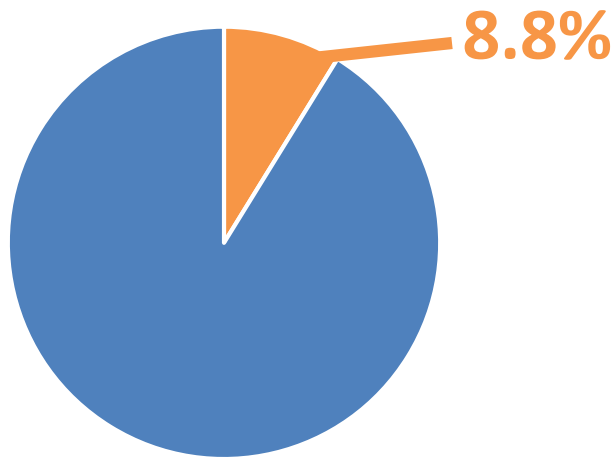
Disclosures

Neither I nor my spouse/partner has a relevant financial relationship with a commercial interest to disclose

I will be discussing off label use of medication in my presentation

Screening for substance use is crucial

1.3 million adolescents
needed treatment for a
SUD in 2017



- Received treatment
- Did not receive treatment

New screening tools—S2BI



Screening to Brief Intervention

In the past year, how many time have you used:

- Tobacco?
- Alcohol?
- Marijuana

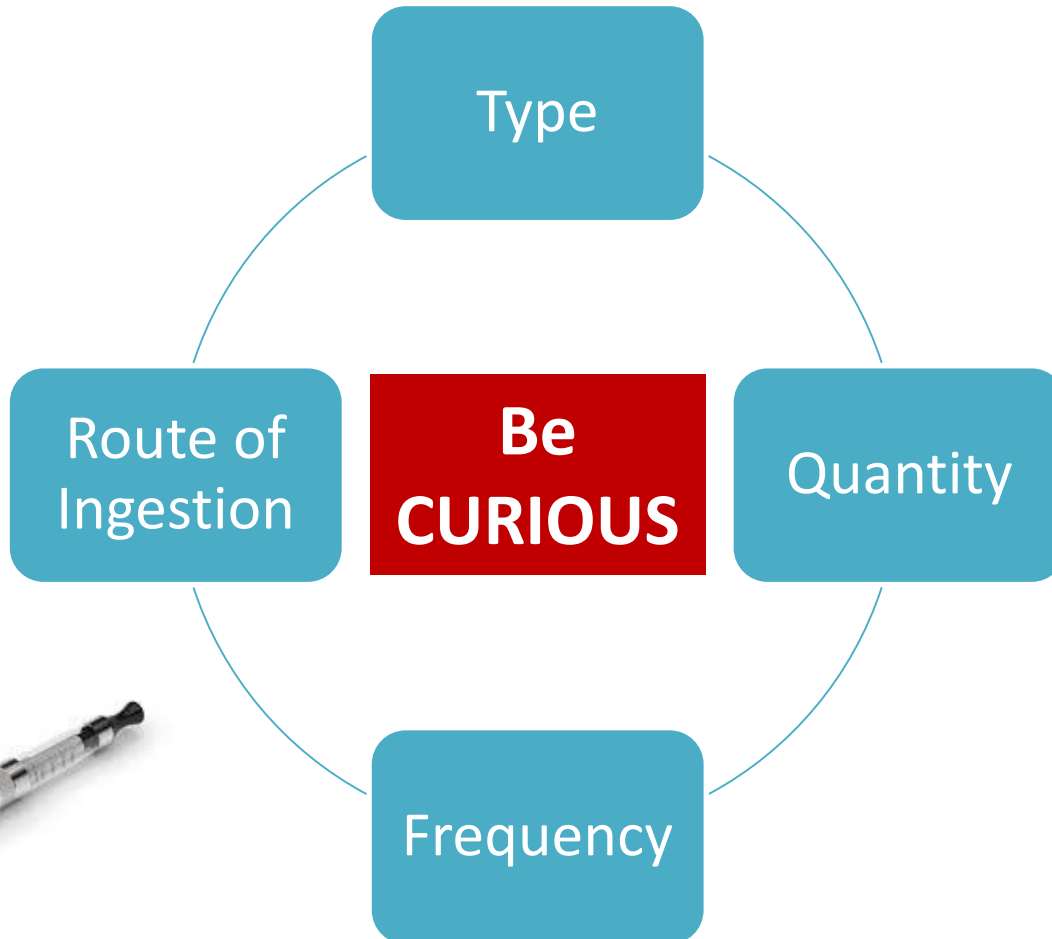
STOP if all “Never”

Otherwise, continue

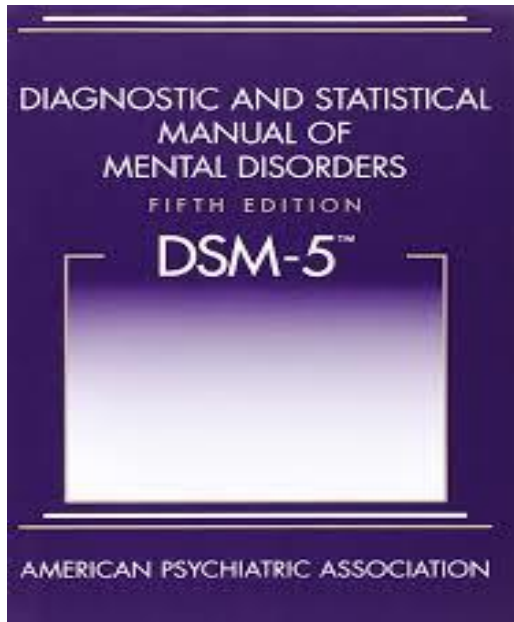
- Prescription drugs?
- Illegal drugs?
- Inhalants?
- Herbs/synthetic drugs

Levy 2014

Screen positive—Assess Amount of Substance Use



Assess for SUD



- Problematic pattern of substance use leading to *clinically significant impairment* over the past 12 months
- Total of 11 criteria
 - Impaired control
 - Social impairment
 - Risky use
 - Tolerance, withdrawal

Assess for SUD

Diagnosis is based on the number of criteria endorsed

Mild
(2 to 3)

Moderate
(4 to 5)

Severe
(6+)

SUD Treatment—Stay patient centered



- The overall goal is to get the patient to come back!
- Engage young people around their concerns
 - People come to treatment when they are having problems—what problem brought them to treatment?

SUD Treatment— Assess readiness to change

Harm
Reduction

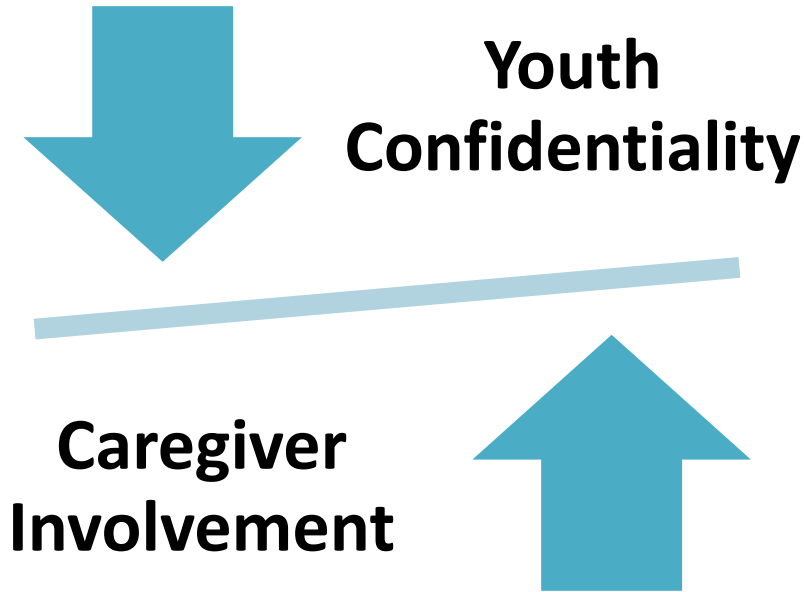
Total
Abstinence



- Motivational interviewing
- Decrease risky use

- Cognitive behavioral therapy
(skill building, relapse prevention)

SUD Treatment—Involve caregivers



- Caregivers are important for:
 - Encouraging treatment engagement
 - Monitoring youth over time
 - Encouraging treatment re-entry after relapse
- Youth need a confidential and safe space to engage in care **AND** caregivers needs to be involved.
- ***Working with youth often requires a multidisciplinary team.***

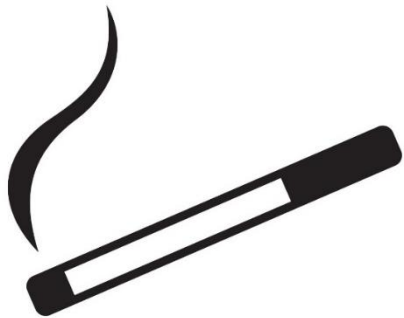
SUD Treatment—Pharmacotherapy



Pharmacologic strategies to treat SUD

1. Aversive treatment (antimetabolism)
2. Reduce urges or cravings
3. Agonist/substitution therapy
4. Treat co-occurring psychiatric disorder
5. Prevention

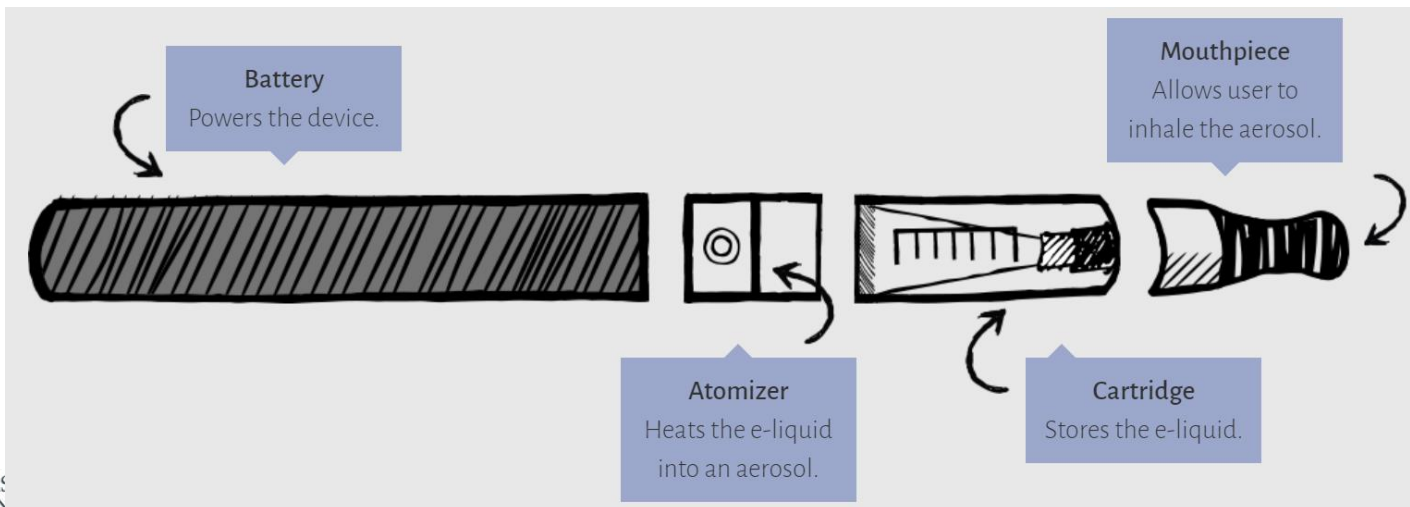
Pharmacotherapy for Nicotine UD



- **Nicotine replacement therapy**—nicotine patch but not gum or nasal spray
 - 1 pack of cigarettes=20 cigarettes
 - Each cigarette—absorb approx. 1 to 2 mg of nicotine
 - Nicotine patches—7 mg, 14 mg, 21 mg
- **Bupropion SR 300 mg daily**
- *Remember—polycyclic aromatic hydrocarbons from combustible cigarettes induce CYP1A2*

E-cigarettes

- Not recommended as a treatment for tobacco use disorders in youth
- No data on treatment for nicotine use disorders due to e-cigarette use
- It is important to quantify how much nicotine they are using (1 juul pod=1 pack of cigarettes)



Pharmacotherapy for Alcohol UD



- **Naltrexone**—decrease in heavy drinking, 25 mg to 50 mg QD to BID
- **Topiramate**—decrease in heavy drinking, maintain abstinence, <300 mg/day (adults)
- **Odansetron**—decrease urges and drinking in early onset AUD, 2 to 8 mg/day
- **Disulfiram**—reaction to alcohol (use for highly motivated youth), blocks aldehyde dehydrogenase, 125 mg to 250 mg/day

Niederhofer 2003, Dawes 2004, Deas 2005, Johnson 2007, Yule/Wilens 2015

Pharmacotherapy for Cannabis UD



- **N-Acetyl Cysteine (NAC)**
 - Over the counter nutraceutical
 - Associated with decrease in cannabis use
 - Dose: 1200 mg BID
 - Generally well tolerated, some gastrointestinal symptoms associated with treatment (heartburn, flatulence, abdominal cramps)
- **Gabapentin**
 - decrease use, cravings, withdrawal symptoms,
 - Dose: 1200 mg/day
 - Data from pilot adult study

Gray 2012, Gray 2018, Mason 2012

Pharmacotherapy for Opioid UD

- **Buprenorphine/naloxone**
 - FDA approved for youth ages 16+
 - Need DEA waiver to prescribe
- **Naltrexone extended release**
 - FDA approved for 18+
 - Case series in youth
- **Methadone**
 - Use very restricted in adolescents
 - Administered in opioid treatment programs only

Marsch 2005, Woody 2008, Fishman 2010, Marsch 2016

Youth with SUD & Psychiatric Co-morbidity

- **ADHD**
 - Consider addressing both conditions
 - Low level substance use → continue to treat ADHD
 - More severe SUD → address SUD first
 - Once stabilizing treat with non-stimulants and extended release stimulants
- **Depression**
 - Co-treat both
 - May need to improve SUD to see residual mood symptoms

Reviews: Gignac 2010, Yule/Wilens 2015, Jackson 2017

Youth with SUD & Psychiatric Co-morbidity

- **Anxiety**
 - Address SUD initially, then anxiety
 - Can treat anxiety in the context of SUD (SSRI/SNRI, buspirone)
- **Severe Mood Dysregulation**
 - Co-treat both
 - Use safer agents (e.g. SGA for mood)

Reviews: Gignac 2010, Yule/Wilens 2015, Jackson 2017

SUD Treatment—Summary

- Screening is critical to identify substance use/use disorder
- Match behavioral therapy to readiness/motivation to change substance use
- Treatment of youth with SUD/psych co-morbidity requires treatment for both disorders
- Monitor adherence to pharmacotherapy and other follow-up recommendations
- Schedule frequent follow-up and regular communication with other treatment providers and caregivers