Outpatient Treatment for Adolescent Substance Use

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BINGE DRINKING RATES STEADY AFTER DECADES OF DECLINE

*Binge drinking is defined as having 5 or more drinks in a row in the last 2 weeks.

BINGE DRINKING APPEARS TO HAVE LEVELED OFF THIS YEAR, BUT IS SIGNIFICANTLY LOWER THAN PEAK YEARS.
DAILY MARIJUANA USE MOSTLY STEADY

2007 – 2017

2017

8th graders 0.8%
10th graders 2.9%
12th graders 5.9%

71.0% of high school seniors do not view regular marijuana smoking as being very harmful, but 64.7% say they disapprove of regular marijuana smoking.

NIH National Institute on Drug Abuse
DRUGABUSE.GOV
TEENS MORE LIKELY TO USE MARIJUANA THAN CIGARETTES

Daily use among 12th graders

- 1992: Marijuana 1.9%
- 1997: Marijuana 24.6%
- Cigarettes 4.2%

NIH National Institute on Drug Abuse

DRUGABUSE.GOV
Past-year misuse of Vicodin among 12th graders has dropped dramatically in the past 15 years. Misuse of all Rx opioids among 12th graders has also dropped dramatically, despite high opioid overdose rates among adults.

Past-year use among 12th graders

**Illicit Drugs**

- 37.1% Marijuana/Hashish
- 3.7% Synthetic Cannabinoids
- 3.3% LSD
- 2.7% Cocaine
- 2.6% MDMA (Ecstasy/Molly)
- 1.5% Inhalants
- 0.4% Heroin

**Prescription/OTC**

- 5.5% Adderall®
- 4.7% Tranquilizers
- 4.2% Opioids other than Heroin
- 3.2% Cough/Cold Medicine
- 2.9% Sedatives
- 1.3% Ritalin®

Students report lowest rates since start of the survey

Across all grades, past-year use of heroin, methamphetamine, cigarettes, and synthetic cannabinoids* are at their lowest by many measures.

*Called “synthetic marijuana” in survey

NIH National Institute on Drug Abuse

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Impacts of Adolescent Substance Use

• Those who began drinking or using drugs early in life are **more likely to develop substance use disorders.**
  
  – Of people who began drinking before age 14, 47% became dependent at some point, compared to 9% of people who began drinking at age 21+ (Hingson et al., 2006)
  
  – Risk for illicit drug use disorder was 6X higher in people who started cannabis use before age 14 compared to those who started after age 18.

• The adolescent brain is **more sensitive to toxicity** from drugs and alcohol: cognitive impairments as well as psychiatric

• Adolescence is a crucial developmental period with necessary progress through milestones. **Substance use derailed this progress.**
Other Impacts

- Drug and alcohol use are associated with leading causes of death in teens (motor vehicle crashes, falls, suicide, overdoses, alcohol poisoning, homicide)

- Strongly linked to several serious health risks (injuries, assault, violence, unprotected sex, teen pregnancy, STIs including HIV/AIDS)
Adolescent Development is Multifaceted and Uneven

- Physical
- Cultural
- Cognitive
- Sexual
- Social
- Emotional
- Moral
- Spiritual
Substance Use in Teens

• Developmental perspective
  – Level of risk varies (level, frequency, circumstances)
  – Progressive nature of SUDs
    • Not binary, not just the extremes
    • Can be harmful at low levels

Abstainer | Experiment | Occasional use | Risky Use | Harmful Use | Heavy Use
NIDA Adolescent SUD Treatment Principles

1. Adolescent substance use needs to be identified and addressed as soon as possible.

2. Adolescents can benefit from a drug intervention even if they are not addicted to a drug.

3. Routine annual medical visits are an opportunity to ask adolescents about drug use.

4. Legal interventions and sanctions or family pressure may play an important role in getting adolescents to enter, stay in, and complete treatment.

5. Substance use disorder treatment should be tailored to the unique needs of the adolescent.
NIDA Adolescent SUD Treatment Principles

6. Treatment should address the needs of the whole person, rather than just focusing on his or her drug use.

7. Behavioral therapies are effective in addressing adolescent drug use.

8. Families and the community are important aspects of treatment.

9. Effectively treating SUDs in adolescents requires also identifying and treating any other mental health conditions they may have.

10. Sensitive issues such as violence and child abuse or risk of suicide should be identified and addressed.
11. It is important to monitor drug use during treatment.

12. Staying in treatment for an adequate period of time and continuity of care afterward are important.

13. Testing adolescents for sexually transmitted diseases like HIV, as well as hepatitis B and C, is an important part of drug treatment.
Protective

- Strong family relationships
- Consistent parental monitoring
- Clear rules and contingencies
- Social support
- Pro-social activities
- School success
- Non-using peers
- Healthy coping skills
- Good problem-solving skills

Risk

- Chaotic home environment
- Parental use, sibling use
- Intrauterine exposure
- Inconsistent parenting
- Poor parent-child relationship
- Poor coping
- School failure
- Delinquent peers
- Easy access to substances
- Impulsivity
- Trauma and adversity
Screening

- **Interview**: ex: KSADS, SCID, HEADSS

- **Questionnaires**
  - **CRAFFT**: Car, Relax, Alone, Forget, Friends, Trouble
  - **S2BI**: Gate questions, follow-up
  - **BSTAD**: adaptation of NIAAA questions, self and friends’ use
  - **POSIT**: Problem Oriented Screening Instrument for Teachers
  - **AUDIT**: Alcohol Use Disorders Identification Test
  - **CAGE-A**: Cut down, Annoyed, Guilty, Eye Opener
  - **Bright Futures**: Tailored to different ages

Cohen, Reif, Knight, Latimer, 1991; Knight, 1999; Levy et al., 2014; Kelley et al., 2014
Screening – S2BI
(Promoted by NIDA)

Screening to Brief Intervention (S2BI) Tool

The following questions will ask about your use, if any, of alcohol, tobacco, and other drugs. Please answer every question by checking the box next to your choice.

**IN THE PAST YEAR, HOW MANY TIMES HAVE YOU USED:**

<table>
<thead>
<tr>
<th>Tobacco?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td></td>
</tr>
<tr>
<td>Once or twice</td>
<td></td>
</tr>
<tr>
<td>Monthly</td>
<td></td>
</tr>
<tr>
<td>Weekly or more</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Marijuana?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td></td>
</tr>
<tr>
<td>Once or twice</td>
<td></td>
</tr>
<tr>
<td>Monthly</td>
<td></td>
</tr>
<tr>
<td>Weekly or more</td>
<td></td>
</tr>
</tbody>
</table>

**STOP** if answers to all previous questions are “never.” Otherwise, continue with questions on the back.

S2BI Tool developed at Boston Children’s Hospital with support from the National Institute on Drug Abuse.

It is best used in conjunction with “The Adolescent SBIRT Toolkit for Providers” mass.gov/maclearinghouse (no charge).

Levy et al., 2014, *JAMA Pediatrics*; C2BI Toolkit
# Screening – S2BI

<table>
<thead>
<tr>
<th>Prescription drugs that were not prescribed for you (such as pain medication or Adderall)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
</tr>
<tr>
<td>Once or twice</td>
</tr>
<tr>
<td>Monthly</td>
</tr>
<tr>
<td>Weekly or more</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inhalants (such as nitrous oxide)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
</tr>
<tr>
<td>Once or twice</td>
</tr>
<tr>
<td>Monthly</td>
</tr>
<tr>
<td>Weekly or more</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Illegal drugs (such as cocaine or Ecstasy)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
</tr>
<tr>
<td>Once or twice</td>
</tr>
<tr>
<td>Monthly</td>
</tr>
<tr>
<td>Weekly or more</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Herbs or synthetic drugs (such as salvia, “K2”, or bath salts)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
</tr>
<tr>
<td>Once or twice</td>
</tr>
<tr>
<td>Monthly</td>
</tr>
<tr>
<td>Weekly or more</td>
</tr>
</tbody>
</table>

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Levy et al., 2014, *JAMA Pediatrics*; C2BI Toolkit
# Screening – S2BI

Table 1. Definition of Substance Use Categories

<table>
<thead>
<tr>
<th>Substance Use Disorder</th>
<th>Full Screen and Brief Assessment Tool</th>
<th>Screen to Brief Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Any past-year substance use, RAFFT score = 0, other assessment questions negative</td>
<td>Once or twice use of any substance</td>
</tr>
<tr>
<td>Mild-moderate</td>
<td>Any past-year substance use, RAFFT score &gt;1, other assessment questions negative</td>
<td>Monthly use of any substance</td>
</tr>
<tr>
<td>Severe</td>
<td>Any past-year substance use, RAFFT score &gt;1, other assessment questions positive</td>
<td>Weekly or greater use of any substance</td>
</tr>
</tbody>
</table>

Abbreviation: RAFFT, relax, alone, forget, friends or family, trouble.

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Levy et al., 2014, *JAMA Pediatrics*; C2BI Toolkit
## Screening: CRAFFT

<table>
<thead>
<tr>
<th>C</th>
<th>Have you ever ridden in a <strong>CAR</strong> driven by someone (including yourself) who was “high” or had been using alcohol or drugs?</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Do you ever use alcohol or drugs to <strong>RELAX</strong>, feel better about yourself, or fit in?</td>
</tr>
<tr>
<td>A</td>
<td>Do you ever use alcohol or drugs when you are by yourself, <strong>ALONE</strong>?</td>
</tr>
<tr>
<td>F</td>
<td>Do you ever <strong>FORGET</strong> things you did while using alcohol or drugs?</td>
</tr>
<tr>
<td>F</td>
<td>Do your family or <strong>FRIENDS</strong> ever tell you that you should cut down on your drinking or drug use?</td>
</tr>
<tr>
<td>T</td>
<td>Have you ever gotten into <strong>TROUBLE</strong> while you were using alcohol or drugs?</td>
</tr>
</tbody>
</table>

Source: Knight 1999
Family Check-Up

1. Communication
2. Encouragement
3. Negotiation
4. Setting Limits
5. Supervision
Treatment for SUDs in Youth

• **Family therapies**
  – Functional Family Therapy, Brief Strategic Family Therapy, Multisystemic Therapy, Multidimensional Family Therapy

• **Individual & Group Behavioral/Psychotherapy**
  – A-CRA, Contingency Management, CBT, MI/MET, CBT+MI/MET, 12-Step

• **Medications**

• **Inpatient, Partial Hospitalization, Residential, Detox**
# Evidence-Based Treatment Models (Outpatient)

<table>
<thead>
<tr>
<th>Level of Support</th>
<th>Treatments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1: Works well, Well-established</strong></td>
<td>• Group CBT</td>
</tr>
<tr>
<td></td>
<td>• Individual CBT</td>
</tr>
<tr>
<td></td>
<td>• Family-based treatment (ecological; MDFT, FFT, EBFT)</td>
</tr>
<tr>
<td></td>
<td>• Combined MET/CBT</td>
</tr>
<tr>
<td></td>
<td>• Combined MET/CBT/Family-based treatment (behavioral)</td>
</tr>
<tr>
<td><strong>2: Works, Probably efficacious</strong></td>
<td>• Family-based treatment (behavioral)</td>
</tr>
<tr>
<td></td>
<td>• Motivational interviewing/MET</td>
</tr>
<tr>
<td></td>
<td>• Combined family-based treatment (ecological)/Contingency Management</td>
</tr>
<tr>
<td></td>
<td>• Combined MET/CBT/Family-based treatment (behavioral)/Contingency management</td>
</tr>
<tr>
<td><strong>3: Might work, Possibly efficacious</strong></td>
<td>• Drug counseling/12-step</td>
</tr>
</tbody>
</table>

Hogue, Henderson, Ozechowski, & Robbins, 2014, *JCCAP*
Common Goals

• **Reduce** substance use
• Enhance motivation and efficacy in reducing use
• Identify drivers of substance use problems and implement evidence-based interventions to address the drivers
• Bolster protective factors against substance abuse
• Teach realistic refusal skills
• Replace needs met by substance use with more adaptive strategies
  – Activating the reward system in other ways!
  – Encourage and link to prosocial activities
• Monitor use with random screening (ideally by caregiver)
ENCOMPASS

- Weekly, individual CBT + MI + CM + 3 family sessions
- **Week 1:** Personal rulers (ready/willing/able), Supportive People, Functional Analysis of Pro-Social Activities
- **Week 2:** Personal Feedback (develop discrepancy), Goal Setting, Happiness Scale, Summarize change talk
- **Week 3:** Functional Analysis of Drug Use Behavior, Patterns of Use Expectation of Effects, Consequences of Use
- **13 Skills Training Modules:**
  - Coping with cravings
  - Communication
  - Managing anger
  - Negative moods
  - Problem solving
  - Realistic refusal skills
  - Support systems
  - Coping with a slip
  - Seemingly irrelevant decisions
  - HIV prevention
  - Saying goodbye
  - Bringing in the family (3 sessions)

Riggs et al
ENCOMPASS: Key Elements

• Comprehensive baseline diagnostic and clinical evaluation (incorporated into personal feedback report)
• Address co-occurring mental health problems/psychiatric symptoms especially triggers for substance use
• Systematic progress monitoring (TLFB, UDS, repeated measures; documentation
• Fidelity/adherence monitoring
• Contingency management/Motivational
Module # 3: Functional Analysis /Exploring High Risk Situations

• Better understand the function and triggers for substance use (behavior) before developing treatment plan to individualize intervention.

• Encourage an interactive and collaborative process which will be continued in the next phase of treatment (skill acquisition).
Patterns of Use

- Establishes the expectation of direct discussion about their substance use.
- Gather as much specific information as possible about the substances they use, how much they are using (e.g. joints, blunts, bowls, grams, etc.), how often, and over how long a period of time (e.g. hours, days, weeks).
Triggers
(Antecedents)

- **External Triggers (who, where, when):**
  - Describe a “typical” day with times they used
  - Help identify patterns to their substance use behavior
  - Looking for clues about the triggers (stimulus cues)

- **Internal Triggers**
  - Illustrate a scene to recognize and label thoughts and feelings antecedent to substance use
  - Describe last use and preceding events, emotions, & thoughts
  - Outline steps leading up to use to help him/her recognize that a specific decision was made under particular emotional/cognitive conditions
Consequences

• **Short-term Positive Consequences**
  – Gather as much information as possible including pleasant thoughts, feelings (mood states), and physical sensations associated with use

• **Lasting Negative Consequences**
  – Identify negative consequences associated with substance use
  – Use the principles of motivational interviewing, especially developing discrepancies
  – Examples include legal problems, poor school performance, difficulty obtaining a job, family conflicts, loss of non-using friends
  – Consider a “biphasic response” (a two-fold response which has both positive and negative immediate consequences)
Contingency Management

• Strong data to support decrease in drug use in adults and adolescents
• Approach to behavior change (A-B-C)
  – Can be used by parents alone or in coordination with a therapist
• Point-and-level system or “Prize draws” for positive behaviors:
  – Session attendance
  – Negative UDS
  – Pro-social activities
• Bonus prizes for sustained or early abstinence

Henggeler et al., 2012
NIDA Principles of Adolescent Substance Use Disorder Treatment: A Research-Based Guide

www.drugabuse.gov
Effective Child Therapy Database
http://effectivechildtherapy.org/content/substance-abuse