Update in Teen Substance Use Disorders

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Objectives

- Participants will learn about the current prevalence and patterns of substance use and substance use disorders (SUDs) in adolescents
- Participants will become familiar with common screening and assessment tools of SUDs in adolescents
- Participants will be able to describe and utilize common treatment options for SUDs in adolescents
Disclosures

- I have no financial interests to disclose.
- I will be discussing non-FDA approved use of medications in this presentation, which will be so designated on these slides.

Overview

- New DSM Definitions
- Update on Prevalence: Focus on cannabis
- Screening and Assessment
- Treatment and Monitoring (including Utox)
- Co-Occurring Disorders
- Practical Tips
- Q and A
DSM V: Substance Use Disorder

- DSM no longer uses the distinction between Abuse and Dependence
- Overall definition:
  - “A problematic pattern of use leading to clinically significant impairment or distress.”

The 11 DSM V Criteria

- 1. Substance often taken in larger amounts or over a longer period than was intended
- 2. Persistent desire or unsuccessful efforts to cut down or control use
- 3. Great deal of time spent to obtain, use or recover
- 4. Craving
- 5. Failure to fulfill major obligations
- 6. Continued use despite recurrent problems
- 7. Important activities given up
- 8. Recurrent use in hazardous situations
- 9. Use despite knowledge of major associated problems
- 10. Tolerance
- 11. Withdrawal
Severity

- Mild: 2-3 symptoms
- Moderate: 4-5 symptoms
- Severe: 6 or more symptoms

Lifetime Prevalence of Substance Use: 10th Graders

- Ethanol (EtOH)
- Cigarettes
- Cannabis
- Oxycontin
Trends (Monitoring the Future)

- Male generally more drug use
- College-bound adolescents use less
- Regional variation quite complex & changing
- Population density not a predictor of use
- Socioeconomic class difference mostly small
- Whites ≥ Hispanics > African Americans

Prevalence of Substance Use Disorders

2002
- Any substance: 8.9%
- Alcohol: 5.9%
- Illicit drug: 5.6%
- Marijuana: 4.3%
- Pain Reliever: 1.0%
- Cocaine: 0.4%
- Heroin: 0.1%

2014
- Any substance: 5.0%
- Alcohol: 2.7%
- Illicit drug: 3.5%
- Marijuana: 2.7%
- Pain Reliever: 0.7%
- Cocaine: 0.1%
- Heroin: 0.1%
Driving After Marijuana Use Surpasses Drunk Driving

Source: MTF

Risk Factors: Early

- Genetic vulnerability
- Prenatal exposures
- Attachment/neglect
- Sensation-seeking temperament
- Traumatic exposure(s)
- Impulse control deficits
- Learning disorders
Risk Factors: Later

- Poor parental supervision and poor parenting skills
- Substance problems and conflict in family
- Heavy use in local community
- School failure
- Social skills deficits
- Using peer group (gang)
- Poor affect identification and regulation
- Conduct problems
- Mental health problems

Resilience Factors

- Female
- Hobbies
- Prosocial peer group
- Empathic caregiver
- Higher intellectual functioning
- Good academic performance
Summary: Epidemiological Findings

- Experimentation is normative but consequences can be severe and far-ranging
- Use Disorder is the exception.
- Look for
  - Risk factors
  - Early initiation
  - Heavy use

CRAFFT: 2 is Too Much

- Car
- Relax
- Alone
- Family/friends
- Forget
- Trouble

(Knight 2002)
When to UTOX

- In acute change in mental status: testing essential, but not fully reliable
- For outpatient assessment: *voluntary and confidential* urine drug testing may be useful
  - If there is concern that the patient’s use puts him or her at immediate, significant risk, there may be grounds to break confidentiality
- For ongoing monitoring: testing may improve outcomes

EtG

- EtG positive in excess of the 500 ng/mL cutoff is consistent with the ingestion of alcohol-containing products 1-2 days prior to specimen collection
- Studies examining “incidental” exposure widely conclude that results in excess of the 500 ng/mL cutoff are not associated with inadvertent or environment ethanol sources
- Advertised “80-hour” window of detection not “real-world” applicable
Cannabis Detection Window: Update

- 30+ day detection window often exaggerates duration of detection window
- Detection time: at 50 ng/mL cutoff
  - up to 3 days for single event/occasional use
  - up to 10 days for heavy chronic use
- Detection time: at 20 ng/mL cutoff
  - up to 7 days for single event/occasional use
  - up to 21 days for heavy chronic use

“Chemical Dependency” Assessment

- Usually performed by Chemical Dependency Professionals (CDPs)
- Assessment usually consists of a clinical interview that addresses the 6 dimensions of American Society of Addiction Medicine (ASAM) Patient Placement Criteria (PPC)
ASAM Dimensions

- I: Acute intoxication and/or withdrawal potential
- II: Biomedical conditions and complications
- III: Emotional, behavioral, or cognitive conditions and complications
- IV: Readiness to Change
- V: Relapse, continued use, or continued problem potential
- VI: Recovery environment

Psychiatric Assessment

- Multiple domains: timeline approach
- Psychiatric/behavioral
- Family
- School/Vocational
- Recreational/Leisure
- Medical
- Collateral, collateral, collateral!!!
- Toxicology
ASAM PPC Levels

- Level 0.5: Early Intervention
- Level I: Outpatient Services: <9 hours/week
- Level II: Intensive outpatient (9-19 hours/week) / Partial hospitalization (>20 hours/week)
- Level III: residential/inpatient services (e.g., imminent risk of relapse, continued use or poor recovery environment)
- Level IV: medically managed intensive inpatient services

Evidence Base: Psychosocial Treatments

<table>
<thead>
<tr>
<th>Program</th>
<th>Level of Support</th>
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<tbody>
<tr>
<td>Multisystemic Therapy (MST)</td>
<td>Evidence-based</td>
</tr>
<tr>
<td>Adolescent Assertive Community Care</td>
<td>Research-based</td>
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<tr>
<td>Adolescent Community Reinforcement Approach</td>
<td>Research-based</td>
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<tr>
<td>(ACRA)</td>
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<tr>
<td>MET/CBT-5 for youth MJ use</td>
<td>Research-based</td>
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<tr>
<td>Multidimensional Family Therapy</td>
<td>Research-based</td>
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<td>Teen Marijuana Check Up</td>
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<td>Therapeutic Communities</td>
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<tr>
<td>Dialectical Behavioral Therapy</td>
<td>Promising</td>
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<td>Matrix Model</td>
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<tr>
<td>Recovery Support Services</td>
<td>Promising</td>
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<tr>
<td>Seven Challenges</td>
<td>Promising</td>
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</tbody>
</table>

(Source: WSIPP)
Multisystemic Therapy

- Manualized approach addressing multiple determinants of substance use and antisocial behaviors
- Engages family members as collaborators
- Stresses the strength of youth and families
- Addresses barriers to treatment goals
- Therapists familiar with several therapies including CBT and structural family therapy
- Frequent home visits and on-call full time

Behavioral Therapy

- Contingency management: utilize reward systems
- Vouchers or Fishbowl method
- Cash incentives reduced smoking
- Vouchers improved treatment retention
CBT

- Based on social learning theory
- Functional analysis of substance use
- Skills training and self-regulation strategies
- Supported by research
- Efficacy appears to be enhanced by a FAMILY component

Twelve-Step

- Alcoholics Anonymous (AA), Narcotics Anonymous (NA), and many other substance specific programs
  - Focus on building support network
  - Spiritually based and abstinence only
  - Most common but no true RCT
Harm Reduction

• Client centered approach applying readiness to change concept
• Focus is on reducing consequences of use, rather than demanding or promoting abstinence
• Develop strategies and skills

Motivational Approaches

• Motivational interviewing (MI)
  • Client-centered approach focusing on ambivalence

• MI Techniques
  • Open-ended Questions
  • Express Empathy, Listen Reflectively
  • Develop Discrepancy
  • Roll with Resistance
  • Summarize and Affirm
  • Elicit Self-motivational Statements
Cannabis Youth Treatment (CYT) Study

MET + CBT
Family Support Network
MDFT
ACRA

Medication Treatment

- Cannabis
  - NAC (1200mg BID)
- Alcohol
  - Naltrexone
  - Disulfiram
  - Ondansetron, Topiramate, Acamprosate
- Opiate
  - Methadone
  - Buprenorphine
  - Naltrexone

ALL OFF-LABEL
Summary: Treatment

• Treatment is better than no treatment
• Well-defined, structured approaches targeting broad dimensions work best
• Treatment completion → better outcome
• Family-based treatments have strongest support
• Growing support for CBT, contingency management, motivational approaches

Co-Occurring Disorders

• COD is the Rule, Not the Exception
• Common Conditions
  • Disruptive Behavior Disorders (DBDs)
  • Depression & other mood disorders
  • Anxiety disorders
  • Attention-Deficit Hyperactivity Disorder (ADHD)
  • Learning disabilities & sensory problems
  • Others: Bulimia, Psychosis, Personality Disorders
• Increased Role for Medications
Integrated Treatment

• Combined Treatment of depression, conduct disorder and substance use disorder in 2007 RCT:
  • CBT/Fluoxetine vs. CBT/Placebo
  • CBT/Fluoxetine → Greater Improvement in Depression

• Combined Treatment of ADHD and substance use disorder
  • Some support for treatment with long-acting methylphenidate or atomoxetine -- Caution advised

Overall Summary

• The sky is not falling in general, but there is a core group of very impaired teens
• Screening and detection are worth it
• There is a role for urine testing, and urine testing is evolving
• There are no magic bullets, but good treatment is better than no treatment
• There is a role for medications
Tips for Primary Care

- Use screening tools: when in doubt REFER!
- Gather collateral information (including drug testing) and educate parents on warning signs
- Know your local resources and assemble your own referral/treatment network
- Know the content of services
- Involve family
- Involve family
- Involve family

Tips for Primary Care II

- Encourage adolescents to engage in pro-social activities and recovery support
- Treat co-occurring disorders: consider medications for primary psychiatric disorders
- Consider training in Motivational Interviewing and Twelve Step Facilitation
- Consider training in Buprenorphine
- Judicious use of medications with addictive potentials when indicated