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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

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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.

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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

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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."

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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

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Severity

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

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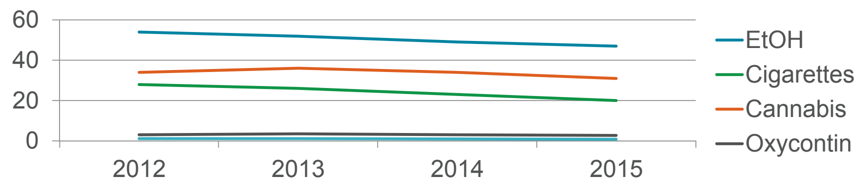
Lifetime Prevalence of Substance Use: 10th Graders



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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

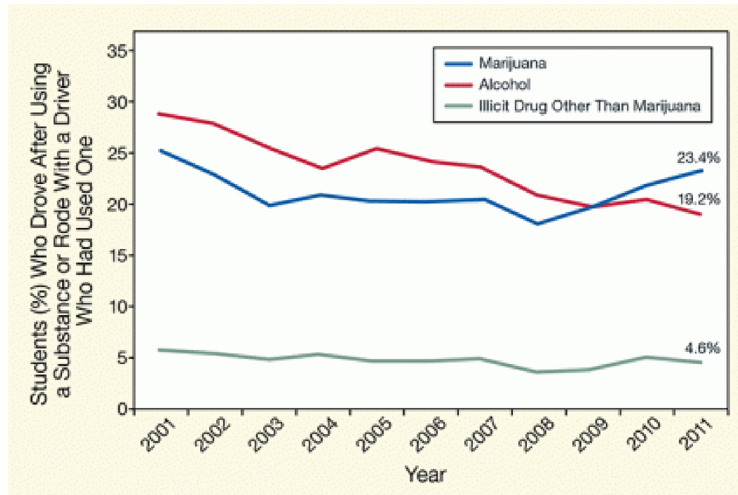
Any substance: 8.9%
Alcohol: 5.9%
Illicit drug: 5.6%
Marijuana: 4.3%
Pain Reliever: 1.0%
Cocaine: 0.4%
Heroin: 0.1%

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%

Past Month Use Disorder, NSDUH 2014

Driving After Marijuana Use Surpasses Drunk Driving



Source: MTF

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Risk Factors: Early

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

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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

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Resilience Factors

- Female
- Hobbies
- Prosocial peer group
- Empathic caregiver
- Higher intellectual functioning
- Good academic performance

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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

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CRAFFT: 2 is Too Much

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

(Knight 2002)

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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

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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

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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

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"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)

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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

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Psychiatric Assessment

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

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ASAM PPC Levels

- Level 0.5: Early Intervention
- Level I: Outpatient Services: <9hours/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

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Evidence Base: Psychosocial Treatments

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

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(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

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Behavioral Therapy

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

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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

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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

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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

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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

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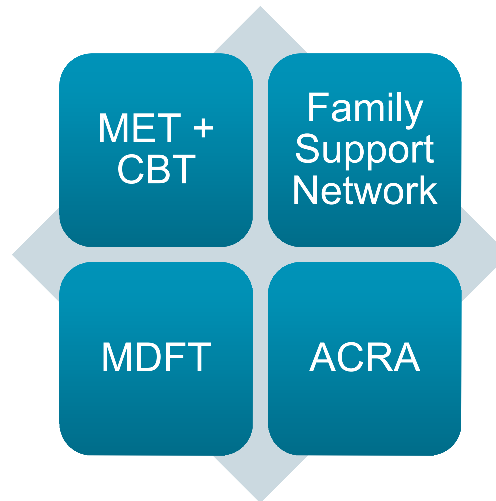
Cannabis Youth Treatment (CYT) Study



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Medication Treatment

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

ALL OFF-LABEL

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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

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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

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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

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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

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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

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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

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