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Substance Use Disorders in Primary Care

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Disclosures:

No conflict of interest

Off-label use of medications will be discussed

Objectives

- Participants will learn about prevalence and patterns of use of alcohol and illicit drugs in adolescents
- Participants will learn about DSM-5 diagnostic changes for substance use disorders (SUDs)
- Participants will become familiar with CRAFFT screening tool and the assessment and referral process for treating SUDs
- Participants will learn about the relationship between marijuana and psychosis
- Participants will be familiar with AAP guidelines regarding drug testing
- Epidemiology, dsm-5 diagnosis update and co-morbidities

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Epidemiology, DSM-5 Diagnosis Update and Co-morbidities

Who, What and How Much

- www.monitoringthefuture.org
- NIDA/NIH funded study
- Follows 50,000 adolescents from 300+ sights
- Survey of both behaviors and attitudes on substance use
- Facilitates research, track trends and informs policy

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MTF Lifetime Prevalence: 2015

	8th	10th	12th
Any alcohol	26.1 (-0.7)	47.1 (-2.2)	64.0 (-2.0)
Any marijuana	15.5 (-0.1)	31.1 (-2.6s)	44.7 (+0.3)
Any illicit other than marijuana	10.3 (+0.3)	14.6 (-1.3)	21.1 (-1.5)
Any cigarettes	13.3 (-0.2)	19.9 (-2.6s)	31.1 (-3.3ss)

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MTF Lifetime Prevalence: 2015

	8th	10th	12th
Marijuana	15.5%	31.1%	44.7%
Inhalants *	9.4%	7.2%	5.7%
Amphetamines +	6.8%	9.7%	10.8%
Heroin ***	0.5%	0.7%	0.8%
Hallucinogen	1.2%	3.3%	4.8%
Cocaine	1.6%	2.7%	4.0%
Methamphetamine	0.8%	1.3%	1.0%
Ecstasy/MDMA **	2.3%	3.8%	5.9%

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Trends in Substance Use

	Use	Perceived Risk	Disapproval	Availability
Alcohol	Down	No change	No change	Down
Marijuana	No change	Way Down	Down	Down
MDMA/Ecstasy	Down	Up (recent)	Up (recent)	Down
Heroin	Down	No change	No change	Down
Amphetamines	No change	No change	Down	Down

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Other trends of interest

- Alcohol and cigarette use is at lowest point since 1975
- Use of MDMA, heroin, amphetamines and synthetic marijuana are down
- Binge drinking is down and disapproval is up
- Heroin in gradual decline but big regional differences
- Synthetic marijuana (K-2, spice) decreasing due to increased education and decreased availability
- Prescription drug use hovering in mid-teens but gradual decline; 70% from friends and family

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DSM 5 changes

- Diagnosis no longer distinguish between abuse and dependence
- Each substance considered separately (poly-substance diagnosis removed)
- Expanded number of criteria which includes consequences of use as well as symptoms of dependence, tolerance and withdrawal
- “Legal problems” removed
- Severity criteria (Moderate = 2 or 3 ; Severe > 3)

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Definitions

- Use – at least once in past 30 days/past year
- Misuse – emerging pattern of use
- (Use) Disorder – pattern of misuse with impairment and/or consequences, inability to control use or physiological symptoms

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Substance Use Disorders

- One of the most prevalent mental health conditions (ADHD > SUD > depression)
- 1.3 million adolescents (5%) affected
- Patterns of use/abuse fairly stable across race, ethnicity and sex.
- Prevalence increases with age
- Boys are twice as likely to have SUD in adulthood

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What we don't know

- Why are mental disorders (MDO) associated with subsequent SUD?
- Does having a MDO increase risk of first use? Regular use? Addiction?
- Does particular substance choice or seriousness of SUD vary with specific MDO?

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NCS-A: Relationship between mental disorders and development of SUDs

- JACAAP April 2016

  "Association of Lifetime Mental Disorders and Subsequent Alcohol and Illicit Drug Use" Conway *et al.*

  - national sample
  - 10,123 adolescents age 13-18
  - examined comprehensive range of mental disorders
  - comprehensive, in-person interview (CIDI 3.0)
  - cross-sectional, retrospective , dated data (2001-2004)

  Knowledge gap: What is the impact of mental disorders on development of substance use disorders?

  Clinical Application: To optimize interventions at different stages of substance use to prevent substance use disorders and minimize morbidity/mortality.

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Anxiety and SUD risk

- SUDs affect 1 in 5 with anxiety disorders
- Internalizing disorders confer greater risk than externalizing disorders
- Anxiety increases risk of alcohol use developing into more serious alcohol problem and earlier drug use

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Depression and SUD risk

- Depression doubles the risk of developing a SUD
- Depression usually precedes SUD
- Co-occurrence of a substance use disorder and depression increases the risk of completed suicide

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Behavioral Disorders and SUD risk

- 1 in 4 with behavioral disorder (ODD, CD, ADHD) develop SUD
- Increase risk of all stages of use/abuse
- ADHD confers 2X risk of SUD; 50% SUD co-morbidity; ADHD treatment reduces SUD
- ODD/CD increase risk of first use and development of alcohol SUD
- 80-90% of CD develop SUD
- High rate of mood disorder if CD+SUD

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Substance use and SUDs

- Regular use of any substance (including cigarettes) increases risk of every stage of drug/etoh abuse.
- Illicit drug use = 5X risk of etoh-SUD
- Etoh use = 2X risk of drug-SUD
- Cigarette use (even 1/week) = 2X risk of any SUD

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Clinical Implications

- Identifying substance misuse/experimentation early can decrease risk of SUDs
- Decreasing access to tobacco can decrease risk of developing SUDs
- Early intervention for behavior disorders can decrease risk of SUDs
- Early screening for DBDs in school and primary care is effective strategy for preventing SUDs
- Substance use prevention strategies should be routinely incorporated into treatments for depression and anxiety

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Documentation, Screening, and Treatment

Documentation

- Special protection for substance use/abuse/dependency information begins at the start of treatment, not at the time of screening, identification or referral.
- In primary care, clinical staff should document
  - Patient disclosures about substance use, abuse and dependence and consequences
  - Patient disclosures about current or past treatment
  - Results of substance abuse screening
  - DSM diagnosis and supporting clinical information
  - Treatment recommendations and referral information

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Primary Care Screening (Knight et al, 1999)

- During the past 12 months did you:
  a. Drink any alcohol?
  b. Smoke any marijuana or hashish?
  c. Use anything else to get high?

  If NO, then ask if ridden in car driven by someone who was impaired.

  If YES to any of the above, complete CRAFFT.

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CRAFFT (Knight et al, 1999)

C	Have you ever ridden in a CAR driven by someone who had been using drugs or alcohol?
R	Do you ever use alcohol or drugs to RELAX, feel better about yourself or fit in?
A	Do you ever use alcohol or drugs while you are ALONE?
F	Do you ever FORGET things you did while using drugs or alcohol?
F	Do your FAMILY or FRIENDS tell you to cut down?
T	Have you ever gotten into TROUBLE while you are using drugs or alcohol?

If ≥ 2, positive screen and more evaluation is needed.

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Substance Abuse Assessment

- Usually performed by Substance Abuse Counselors/Chemical Dependency Professionals (CDPs)
- Specialized assessment – not part of typical psychiatric assessment
- Comprehensive, multi-dimensional clinical interview

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ASAM Patient Placement Criteria

- 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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Treatment Levels

- Level 0.5: early Intervention
- Level I : outpatient (< 9 hr/week)
- Level II : intensive outpatient (9-19 hr/week)
- Level III : residential/inpatient
- Level IV : medically managed intensive inpatient

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Psychosocial Treatments

- Brief Strategic Family Therapy
- Multidimensional Family Therapy
- Behavior Therapy
- Cognitive Behavioral Therapy
- Multi-systemic Therapy
- Harm Reduction Models
- Motivational Interviewing

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Harm Reduction

- Client centered approach applying readiness to change concept
  - Pre-contemplation, contemplation, preparation, action, maintenance, relapse
  - Focus on reducing consequences of use
  - Develop strategies and skills
- Controversial but valuable as intermediate treatment goal

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Motivational Interviewing

- Client-centered approach focusing on ambivalence
- Express Empathy
- Develop Discrepancy
- Roll with Resistance
- Support Self-Efficacy

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Pharmacologic Treatments

- Limited research with few controlled studies and very small samples
  - Nicotine - bupropion, varenicline, nicotine replacement
  - Alcohol - disulfiram, naltrexone, acamprosate, topirimate, odansetron, baclofen
  - Opiates - methadone, buprenorphine, naltrexone, (clonidine)
  - Marijuana - NAC, buspirone, gabapentin, topirimate, rimonabant

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Where to get treatment

- WA Recovery Help Line
  - http://www.warecoveryhelpline.org/for-teens/
- UW Alcohol and Drug Abuse Institute
  - http://adai.uw.edu/WAstate/
- Washington DSHS
  - https://www.dshs.wa.gov/bha/substance-use-treatment-services
- SAMHSA
  - https://findtreatment.samhsa.gov/
  - 1-800-662-435

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Genetics, Marijuana and Drug Testing

Familial Risk (Kandler *et al* AJP 2014)

- 2-4X risk in off-spring if parents have SUD
- decreased risk in SUD offspring if parents abstinent from age 12-14
- 50% genetics
- Early onset SUD highly hereditary
  - Males 55%; Females 73%
  - Sons of male alcoholics up to 9X risk of SUD

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Synthetic Marijuana

- 2nd most widely used illicit drug by 12th graders; rates rising in younger samples (4.4% of 8th graders) (MTF.org)
- Especially common in student athletes (not detected)
- Spice, K2, Mr. Nice Guy, Green Buddha, Blaze, Special-K, AK-47, Barely Legal, etc
- Cannabis-like high (THC >>> CBD)
- Synthetic THC sprayed on herbs; often contaminated w/ other illicit drugs

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Synthetic Marijuana (cont.)

- Many components classified as illegal (Schedule I) but laws cannot keep up; > 130 synthetic cannabinoids
- Adverse effects medical events include acute renal failure, MI and seizures
- Adverse behavioral affects include anxiety/panic, aggression, suicidal ideation and psychosis
- AE and withdrawal states can persist for weeks
- NOT detected on routine drug screens
- Diagnosis is clinical

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Cannabis and Psychosis

- Epidemiologic data – cannabis use increases risk of psychosis (Gage et al, Bio Psych 2016)
- Laboratory – acute administration of THC induces positive symptoms, cognitive symptoms and EEG changes consistent with psychosis
- Research of psychotic disorders suggests endogenous endocannabinoid system (ECS) disruption plays a role
- Cannabis use correlates with higher rate of relapse in individuals with psychotic disorders (Schoeler et al, Lancet 2016)

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Cannabis and Psychosis (cont.)

- Imaging studies demonstrate neuro-anatomic changes (hippocampus, PFC, amygdala and cerebellum) may be related to earlier age of onset and heavier cannabis use. (Lorenzetti et al, Bio Psych 2016)
- Users with psychotic disorders present for psychiatric services at younger age than non-users (Di Forti et al, Bio Psych 2016)
- Daily users of high-potency cannabis experience first episode of psychosis 6 years sooner than non-users. (Di Forti et al, Bio Psych 2016)

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Risk Factors for Psychosis

- Dose and frequency
- Potency (THC:CBD-1)
- Synthetic >> “natural”
- Genetics (AKT1, D2 receptor variants)
- Age (adolescents; prenatal exposure)

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Drug Testing

- Blood – sensitive within 2-12 hours of use; invasive; most reliable; expensive
- Saliva – less invasive; can detect use within 24-48 hours; harder to contaminate; less standardized
- Urine – easily contaminated, false-positives common, require special handling
- Hair – detects only heavy, past use (> 7 days) misses occasional, recreational use; expensive, long turn around time

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AAP Guidelines

- Drug screening not recommended a part of broad screening strategy; should be clinically driven.
- Obtain consent; testing without consent is illegal and unethical
- Advises *against* involuntary drug testing except:
  - Medical emergencies resulting in inability to provide informed consent (accidents, suicide attempts, seizures)
  - Assessment of behavioral or functional changes when drug use is suspected
  - As part of chemical dependency treatment

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AAP Guidelines (cont.)

- Does *not* endorse home drug testing
- Discuss management of results *before* ordering tests; come to consensus on what will be done with both positive and negative results
- Need to balance rights of privacy and autonomy with safety; respect confidentiality if requested

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Primary Care Management of SUDs

- Screen as part of routine care and any potentially relevant problem focused visit
- When in doubt, refer.
- Use collateral information (including drug testing) and educate parents on warning signs
- Know your state laws regarding age of consent for treatment and confidentiality
- Identify local resources and assemble your own referral/treatment network

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Primary Care Management of SUDs (cont.)

- 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
- Judicious use of medications with addictive potentials

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Resources

- "A Parent's Guide to Preventing Underage Marijuana Use"
  http://www.seattlechildrens.org/clinics-programs/adolescent-medicine/resources/
- https://www.erowid.org/psychoactives/psychoactives.shtml
- http://stopoverdose.org
- http://www.**nida**.nih.gov
  - NIDA for Teens: Ask Dr. NIDA
  - Resources for Parents/Teachers
  - Resources for Providers (https://www.drugabuse.gov/publications/principles-adolescent-substance-use-disorder-treatment-research-based-guide/acknowledgements)
- http://www.**aacap**.org
  - Facts for Families
  - Practice Parameters

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