

Comprehensively Treating Adolescents with Co-Occurring Psychiatric and Substance Use Disorders

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- Hulvershorn
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Learning Objectives

1. Understand the impact of drug use in adolescence on brain, psychological, social and academic development.
2. Review empirically supported treatment models for adolescents with substance use disorders and adolescents with co-occurring psychiatric and substance use disorders.
3. Develop skills in screening for substance use disorders and the use of motivational interviewing techniques to create change.

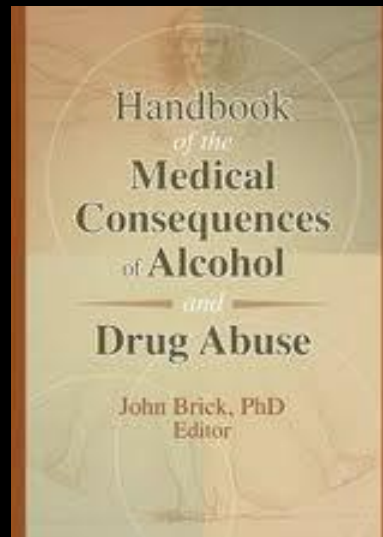
Outline

- 1) The impact of substance use disorders
- 2) Substance diagnoses in teens
- 3) Epidemiology of adolescent substance use
- 4) Risk factors & comorbidities
- 5) Screening & intervention
- 6) Brief interventions for any provider (MI)
- 7) Treatment models

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Impact of Substance Use Disorders



\$193 billion

Estimated cost of drug use to the U.S. society in lost productivity, health care and criminal justice costs in 2007

(Source: NDIC)



Every hour,
1 BABY
is born
suffering
from opiate
withdrawal.

drugabuse.gov

Could we have seen this coming?



age 28



age 29



age 30



age 31



age 32



age 33



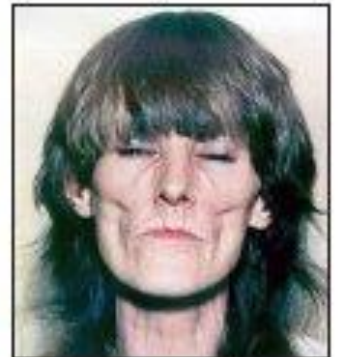
age 34



age 35



age 36



age 37

Consequences and correlates

In 2000, youths ages 12 to 17 who reported past-year alcohol use (19.6%) were more than twice as likely as youths who did not (8.6%) to be at risk for **suicide** during this time period.

Girls ages 12 to 16 who are current drinkers are four times more likely than their nondrinking peers to suffer from **depression**.

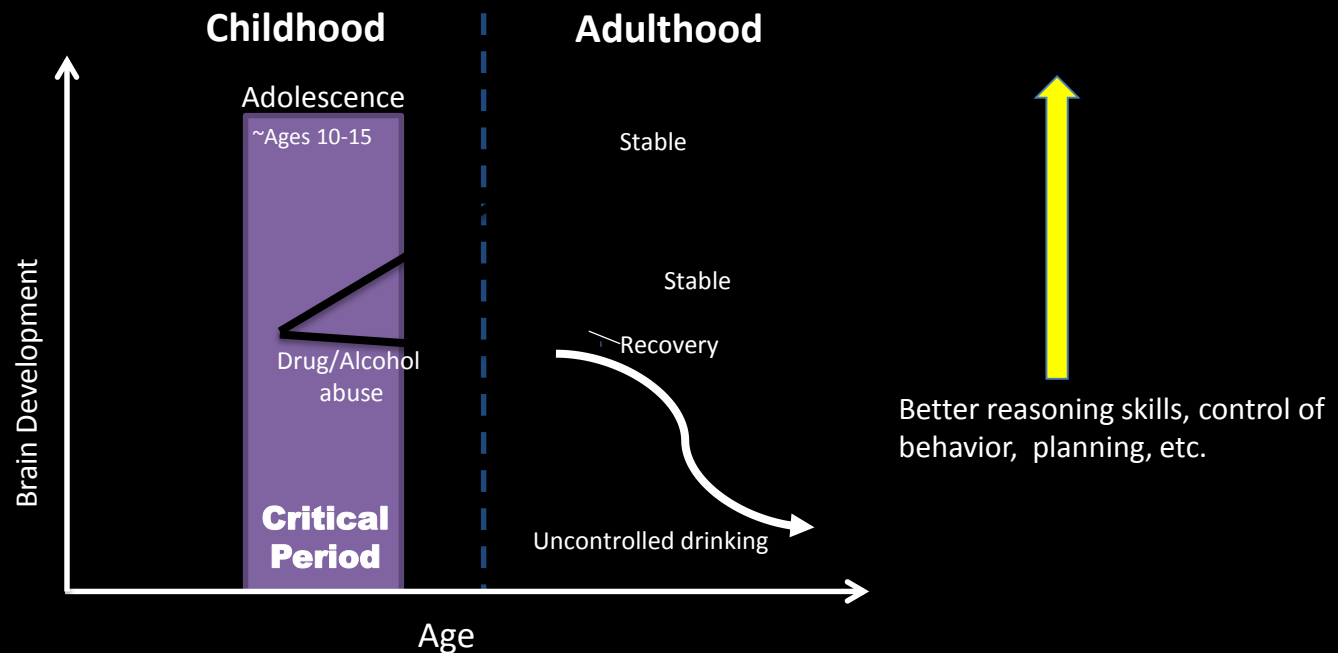
Among adolescents who drink alcohol, 38% to 62% report having had problems related to their drinking, such as **interference with work, emotional and psychological health problems**, the development of tolerance, and the inability to reduce the frequency and quantity of use.

In 2006, 1.4 million youth ages 12 to 17 needed treatment for an alcohol problem. Of this group, only 101,000 of them received any treatment at a specialty facility, leaving an estimated 1.3 million youths who needed but did not receive treatment. (**< 8% in treatment**)

Of all children under age 14 killed in vehicle crashes in 2006, 23% were killed in **alcohol-related crashes**.

Cannabis use is associated with **earlier and worse psychosis** in a subset of people.

Drug and Alcohol abuse

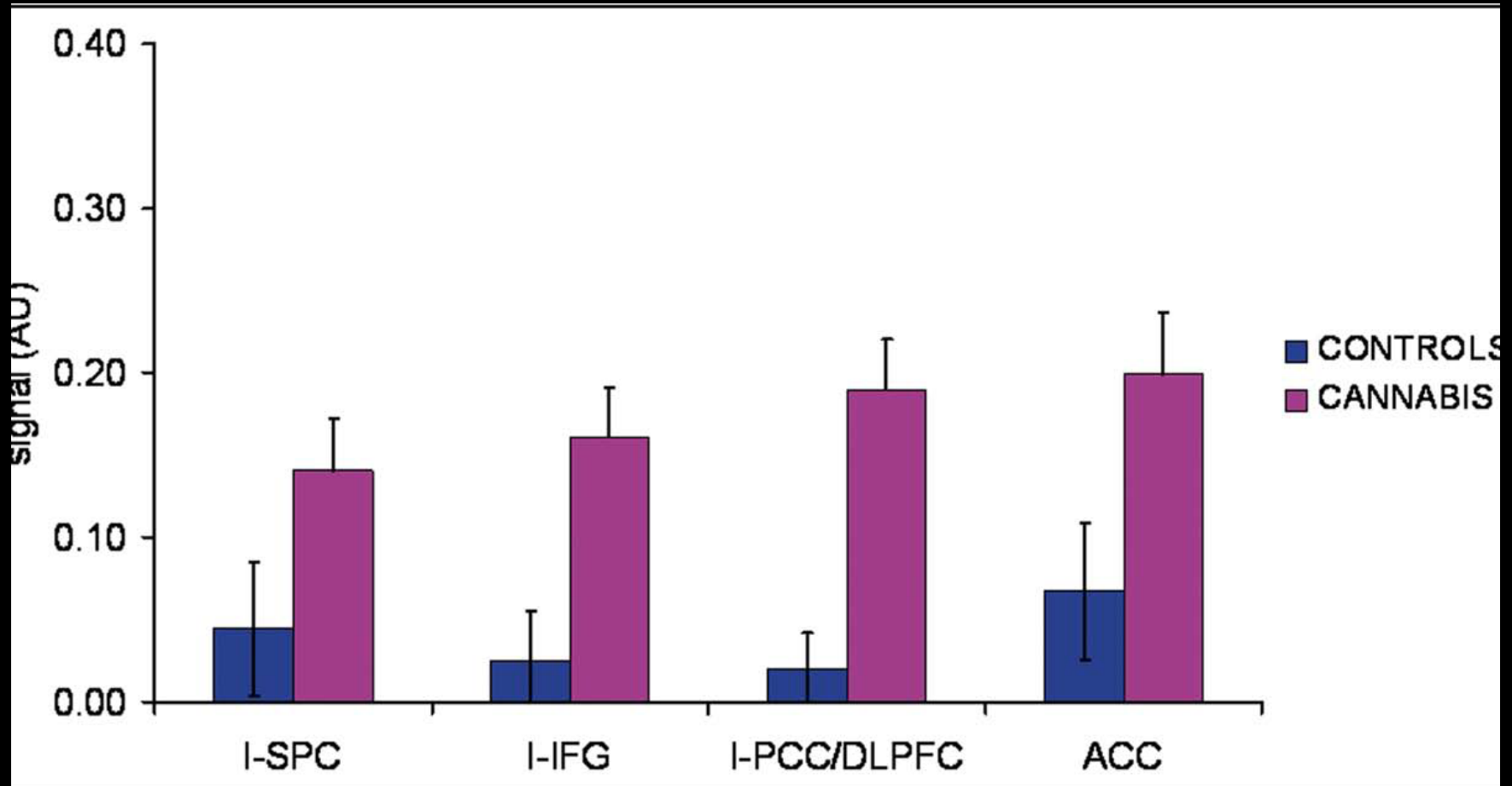


Drugs and alcohol on the brain

- Drugs and alcohol have immediate and long-term effects on brain
- Impairment of prefrontal function (among other things!)
 - Reduces prefrontal excitability, impairs communication between brain cells/regions
 - Alters decision-making, inhibition of thoughts/actions
- Excite reward-processing regions
 - Teens more susceptible to rewarding stimuli
 - Long-term effects worse because brain still developing

Drugs and the adolescent brain

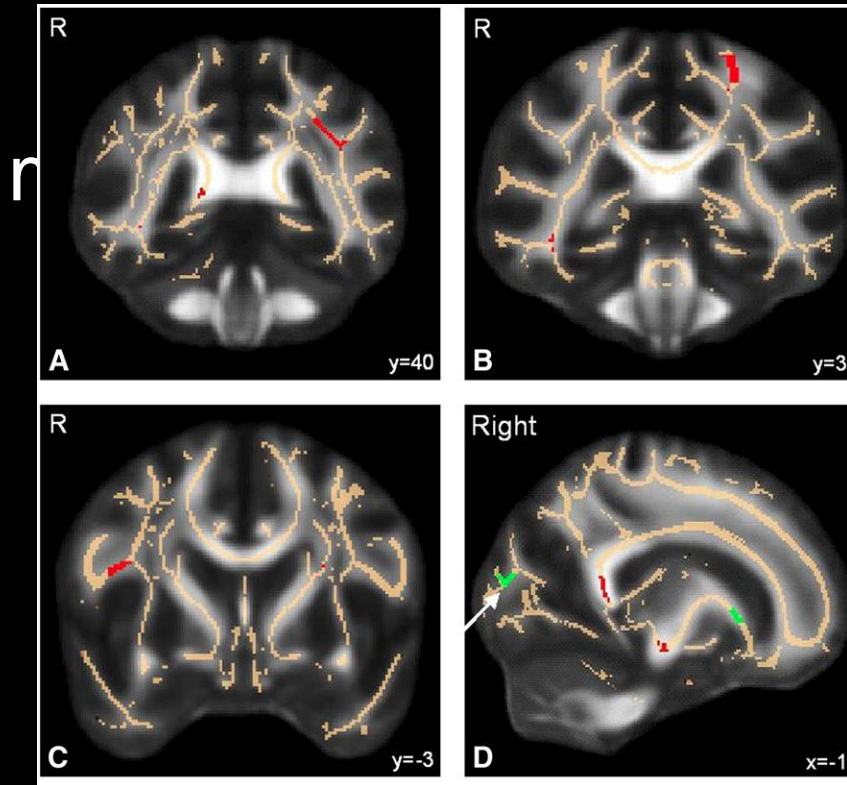
Cortical brain region activations on a working memory task in adolescents with heavy marijuana use vs controls (Jager et al., JAACAP, June 2010).



Alcohol and the adolescent brain

- Brain maturation is incomplete until the mid-20' s; Self-regulation systems in the pre-frontal cortex are the last to mature.
- Adolescent brain more sensitive to alcohol effects on memory and learning (reduced hippocampus size in dependent adolescents)
- Adolescent brain is more sensitive to social stimulating effects and less sensitive to the sedating effects of alcohol
- Adolescent alcohol use by animals increases alcohol consumption and “craving” in adulthood
- http://www.niaaa.nih.gov/AboutNIAAA/NIAAASponsoredPrograms/Documents/NIAAA_Brain_Fact_Sheet_508.pdf

Drugs, alcohol and the adolescent brain

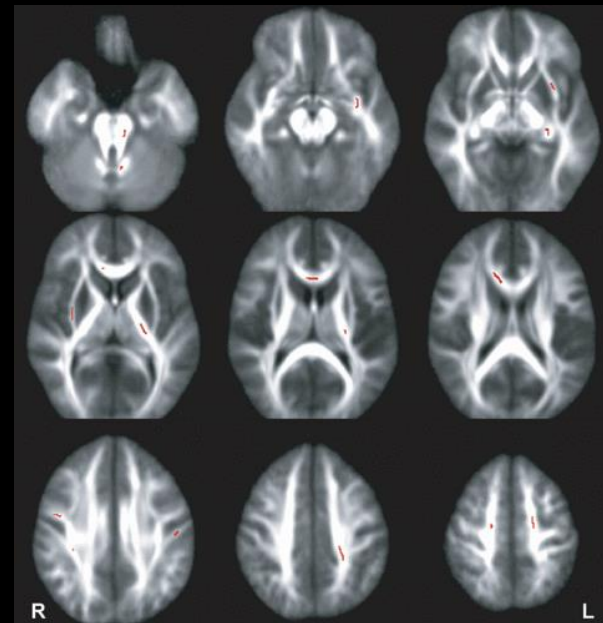


Diffuse white

(Bava et al, 2009, Psychiatry Research: Neuroimaging: 173)

Drugs & Alcohol

- Brain development altered in alcohol-abusing teens
 - Reduced prefrontal white and gray matter in adolescent-onset alcohol-use disorder (De Bellis et al., 2005)
 - White matter development impaired in teen binge drinkers (McQueeney et al., 2009)



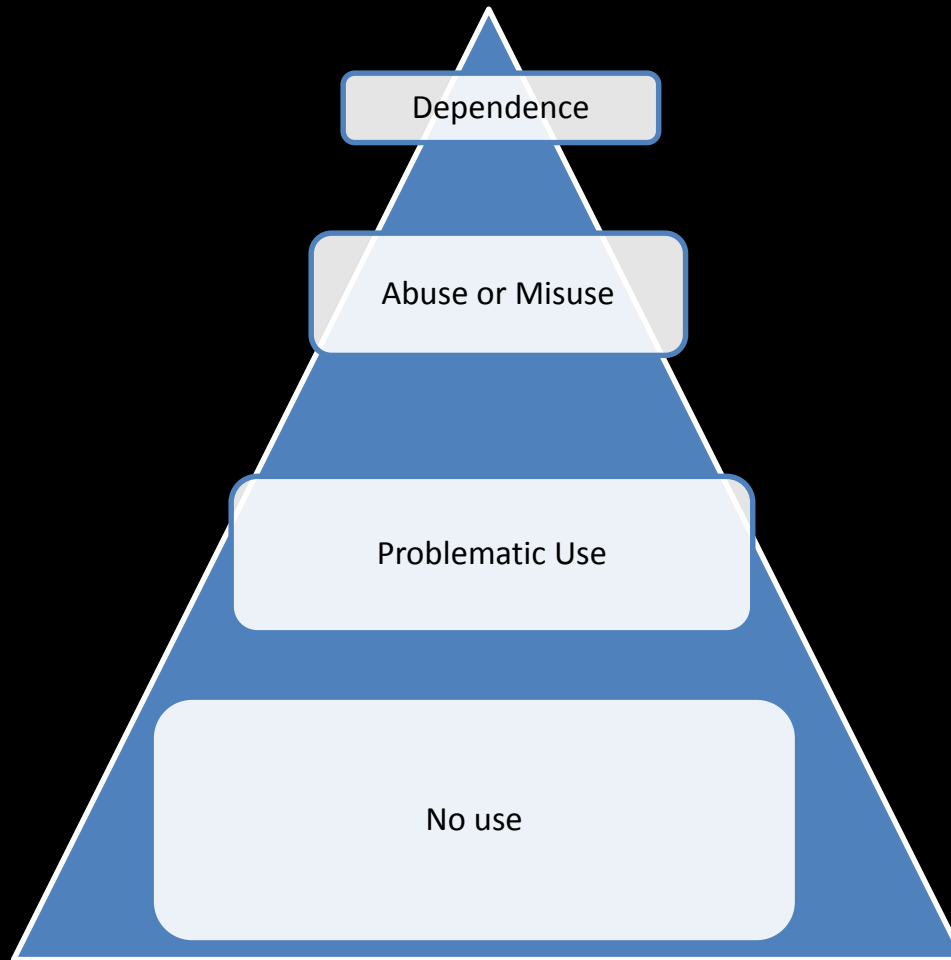
McQueeney et al., 2009

- Of people who begin drinking before age 14, 47% became dependent at some point, compared with 9% of those who began drinking at age 21 or older.

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Patterns of Substance Use



Warning Signs

- Any prescription or other drug seeking behavior.
- Contact with drug using peers.
- Unsupervised time.
- Need to medicate every symptom (fatigue, anxiety).
- Use of any one drug, alcohol or nicotine.
- Distress at inability to obtain substances.
- Family History of substance use disorders.

How are substance use disorders different in adolescents than adults?

- Less chronic, less refractory
- Fewer withdrawal symptoms
- Can be as severely affected
- Fewer judicial/community resources
- More oversight from authorities (parents, school)
- A greater variety of drugs, use impacted more by availability

DSM-5

- Substance Intoxication
- Substance Withdrawal
- Substance-Induced: Psychotic Disorder, Depressive Disorder, etc.
- Substance Use Disorder: (2/11 over 12 months) Problematic pattern of use leading to clinically significant impairment or distress
- New: Caffeine, Tobacco (not nicotine), gambling

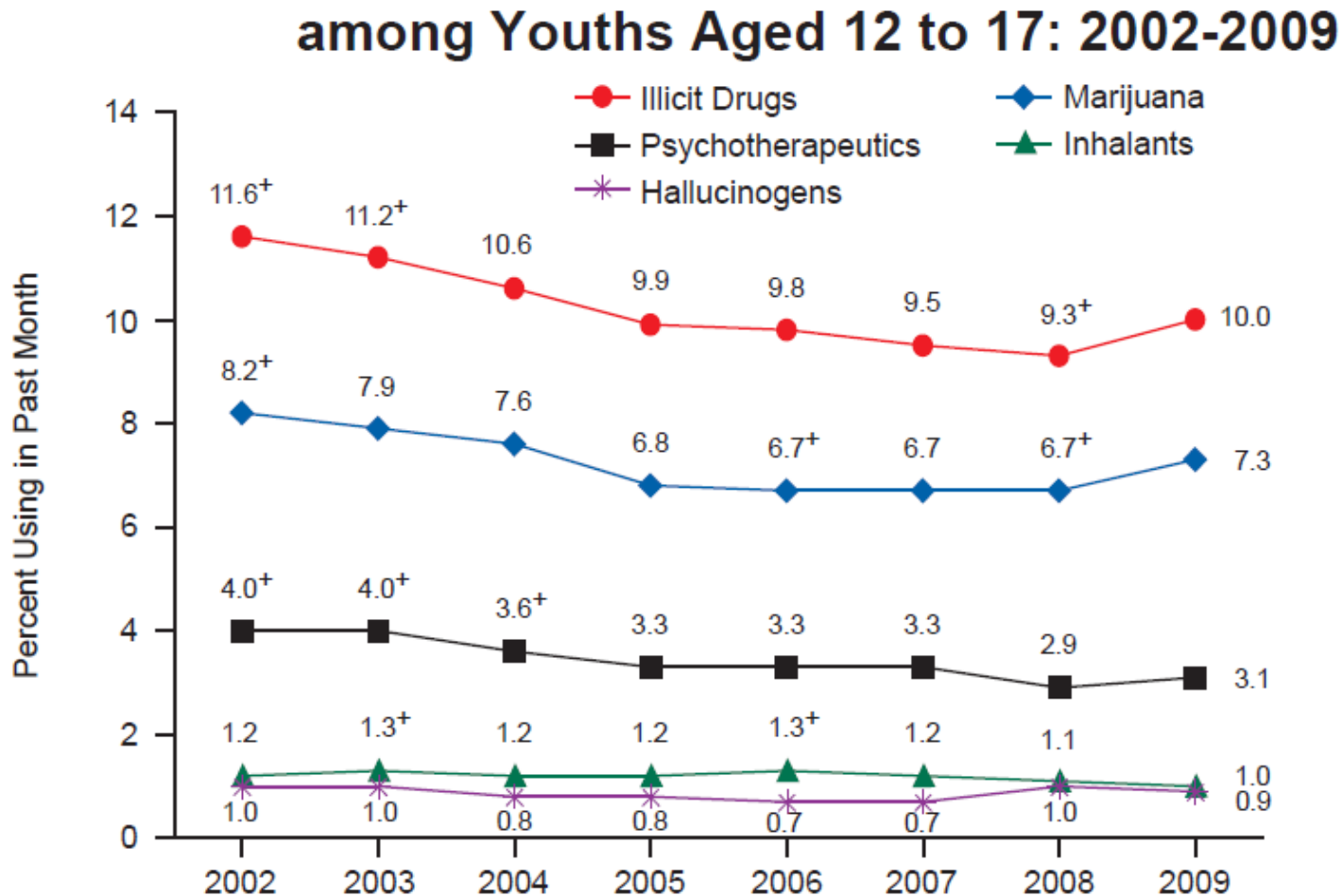
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Epidemiology

- Nearly 50% of American youth used an illicit drug by the time of high school graduation.
- 7.6% of youth aged 12 to 17 years meet criteria at some point for substance use disorders

Epidemiology



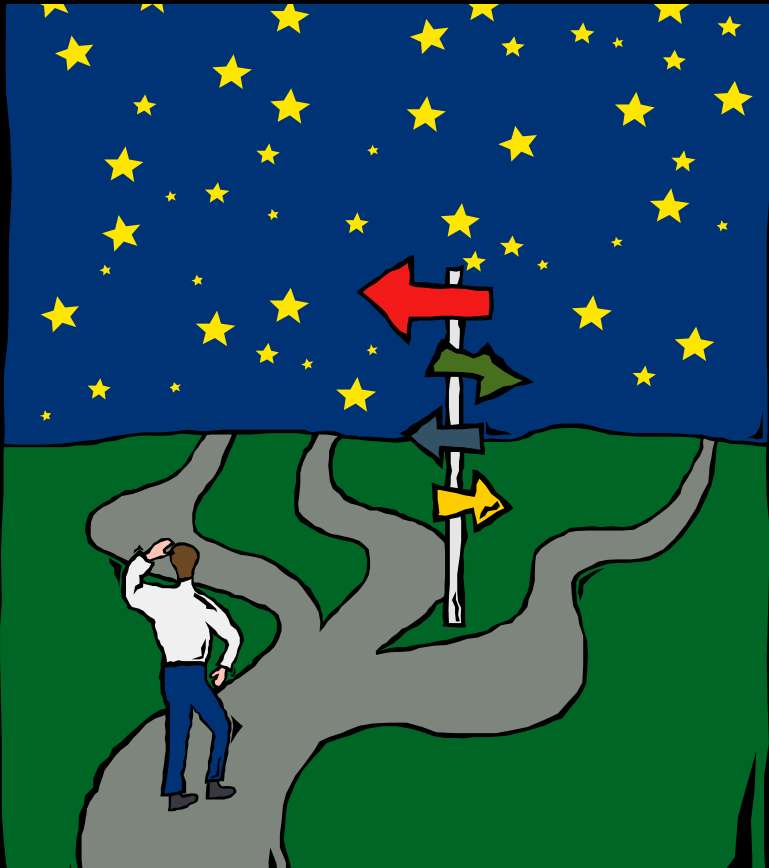
Prevalence Of Teen Drug Use

- **Monitoring the Future Survey (1976-2011)**
 - School-Based Annual Survey
 - Nationally Representative Sample
 - Corrects for Drop-Outs and Alternative Schools

Consumption and Consequences of Alcohol, Tobacco and Drugs in Indiana: 2010

- 14-18 year olds: 39% drink alcohol
- 12-17 year olds: 15% use tobacco
- 14-18 year olds: 21% use marijuana
- 7% of high school students have tried cocaine
- 4% of high school students have tried methamphetamine
- 16% of 12th graders have misused pain relievers

Gateway Drugs?



- Alcohol
- Tobacco
- Marijuana

Problems in 2014

- Cannabis is not dangerous?
- Synthetic cannabinoids
- Prescription pills: opiates and benzodiazepines

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Risk Factors

- Early use
- Genetics: 80% of variance explained
- Externalizing disorders: ADHD, CD, ODD
- Environmental moderators: peer group, childhood stressors, availability of drugs, antisocial activities
- “Neurobehavioral Disinhibition”

Comorbidities (80-90%)

- ADHD, ODD, CD
- Depressive Disorders
- Anxiety Disorders
- Psychotic Disorders (less common)

Why should we care about adolescent substance misuse?

- **Those who began drinking or using drugs early in life are more likely to develop substance use disorders**
- **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 derails this progress**

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What can we do in our clinical
practice?

More Background

- Results of multiple studies that have examined the screening practices of healthcare providers indicate rates far below recommended levels (Marcell et al, 2002; Vadlamudi et al, 2008)
- Many studies that have examined these inadequate screening practices have identified providers' attitudes and beliefs as two significant and influential factors (Marcell et al, 2002; Vadlamudi et al, 2008; Lock et al, 2002)

What should you recommend to your patients?

- Answer: The safest option is to NOT use substances, so you can recommend this option to all of your patients.
- However,

Recommendations if youth decides to use substances

1. Delay use as long as possible
2. Minimize impaired vehicle use
3. Limit amount per episode
4. Don't use unfamiliar drugs
5. Don't mix substances
6. Avoid other risky behaviors
7. Engage with parents & family
8. Participate pro-social activities
9. Talk with health care provider



Screening

- Typically accomplished through semi-structured interview or questionnaire
 - Interview
 - **HEADSS(S)**
 - GAPS: Guidelines for Adolescent Preventive Services
 - Questionnaires
 - **CRAFFT**
 - POSIT: Problem Oriented Screening Instrument for Teachers
 - AUDIT: Alcohol Use Disorders Identification Test
 - CAGE-A: Cut down, Annoyed, Guilty, Eye Opener

Screening

- **CRAFFT**

- Minimum 3, Maximum 9 Screening Questions
- Similar to CAGE-type questions

Car

Relax

Alone

Forget

Family/**F**riends

Trouble

OTHER SCREENERS

- Bright Futures
 - Part of Screening, Assessment and Intervention System
 - American Academy of Pediatrics
 - Tailored screeners for younger, middle and older adolescents
 - We are currently testing a combined version
- GAIN Short Screener
 - Part of the Global Appraisal of Individual Need system
 - Short screener is 2 pages in length
 - GAIN-Q
 - GAIN-I
 - Collateral Questionnaire

Motivational Interviewing

- “A collaborative, person-centered form of guiding to elicit and strengthen motivation for change.” –Miller & Rollnick, 2009
- Method or style, not a school or theory
- Assume most adolescents are not ready for change at first

Motivational Interviewing Techniques for Adolescents

- Be supportive of their need for autonomy
- Collaborative: confidential sessions
- Avoid *righting reflex*: correction/advice giving/data
- Express empathy
- Develop discrepancy: “change talk”
- Roll with resistance
- Support self-efficacy: goal setting, positive focus

<http://www.drugabuse.gov/family-checkup>



Family Checkup

Question 1: Communication

Question 2: Encouragement

Question 3: Negotiation

Question 4: Setting Limits

Question 5: Supervision



Could your kids be at risk for substance abuse?

Families strive to find the best ways to raise their children to live happy, healthy and productive lives. Parents are often concerned about whether their children will start or are already using drugs such as tobacco, alcohol, marijuana, and others, including the abuse of prescription drugs. Research supported by the National Institute on Drug Abuse (NIDA) has shown the important role that parents play in preventing their children from starting to use drugs.

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Existing Models

- Separate treatment programs for psychiatric disorders and addictions
- Group Treatments: 12 step, CBT
- Inpatient
- Residential “Rehab”
- ENCOMPASS: outpatient co-occurring model
- Family Therapy: Multidimensional Family Therapy, Functional Family Therapy, SOFT, Adolescent Community Reinforcement Approach (A-CRA)
- Non evidence based practices

Co-Occurring Disorders: Outpatient Treatment

- Psychiatric and substance use focused diagnostic evaluation
- Pharmacologic Intervention
- Individual CBT: 16 weeks
- Motivational Enhancement Program
- Family/Parent Therapy

Evaluation

- Diagnostic Evaluations (2-3 hours)
 - Standardized Measures and Evaluation for SUDs and Mental Health Comorbidities
 - E.g. Kiddie Schedule for Affective Disorders and Schizophrenia (KSADS)
 - High risk sexual behaviors
 - Baseline psychiatric ratings: MASC, CDRS, ADHD-RS
 - Timeline Follow Back for Drug Use

Treatment

- Medication Management
 - Comorbidities
 - Depression and Anxiety have clear pharmacologic targets
 - ADHD: Stimulants (controversial), Bupropion
 - SUDs
 - Small literature for use in adolescents but wealth of adult research in treatment for SUDs

Medication Treatments for Substance Use Disorders

- Replacement
 - Opiates
 - Suboxone
 - Methadone
 - Nicotine
- Aversive (rarely used)
 - Alcohol
 - Disulfiram
- Others
 - Nicotine
 - Varenicline, Bupropion
 - Opiates
 - Naltrexone
 - Alcohol
 - Acamprosate
 - Naltrexone

ENCOMPASS

- 13 weeks of individual CBT
- 3 weeks of sessions with family/supportive people
- **Week 1:** Personal rulers, supportive people, Functional Analysis of Pro-Social Activities
- **Week 2:** Personal Feedback, Goal Setting, Happiness Scale
- **Week 3 Exploring Use:** Functional Analysis of Drug Use behavior, Expectation of Effects, Consequences of Use
- **Other 13 Modules:** Coping with cravings, communication, managing anger, negative moods, problem solving, refusal skills, support systems, school and employment, coping with a slip, seemingly irrelevant decisions, HIV prevention, saying goodbye, bringing in the family (3 sessions)

Contingency Management

- Strong data to support decrease in drug use in adults and adolescents
- Not a psychotherapy, can be used by parents alone
- “Prize draws” for session attendance, negative UDS, and pro-social activities (adolescent modifier)
- Bonus prizes for sustained or early abstinence

Motivational Enhancement

- Presentation of data to the patient about where their use falls in relation to local and national patterns

FAMILY THERAPY IS A NECESSARY
INGREDIENT OF ALL ADOLESCENT
ADDICTION TREATMENT PROGRAMS

Goals of family/parenting interventions

- Parent training
- Improve Family Functioning
- Reduce/Eliminate Substance Use
- Increase Problem Solving Skills
- Develop (Nurture Existing) Future Orientation
- Address Ecology of the Problem

Outpatient Management of Adolescent Patients with Psychiatric Disorders and Addictions

How to make a referral:

Call RCAPC @ (317) 944-8162 and leave a voice mail with patient info stating the need for an intake for the Adolescent Dual Diagnosis Clinic (aka substance abuse clinic)

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