



# Cannabis Use Disorders: Using Evidenced Based Interventions to Engage Students in Reducing Harmful Cannabis Use or Enter Recovery

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# Session Objectives

- ▶ Identify methods of screening and assessing cannabis use and clinical interventions to reduce harmful use.
  - ▶ Discuss the research on cannabis that is relevant to the college student population
  - ▶ Describe recovery from severe cannabis use disorders; managing relapse, engaging in treatment and recovery support.
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# Incidence and Prevalence of Cannabis Use in the College Population



# College Cannabis Use 2014

## Monitoring the Future Study

Lifetime		
Full-time (All college)	College Males	College Females
48.5	52.0	45.9

Annual		
Full-time (all college)	College Males	College Females
34.4	37.3	32.3

Thirty-Day		
Full-time (all college)	College Males	College Females
20.8	23.5	18.8

Daily (Thirty-day)		
Full-time (all college)	College Males	College Females
5.9	8.7	3.9

# CUDIT-R

## The Cannabis Use Disorder Identification Test - Revised (CUDIT-R)

- ▶ Have you used any cannabis over the past six months? YES / NO
- ▶ How many hours were you “stoned” on a typical day when you had been using cannabis?
- ▶ How often during the past 6 months did you find that you were not able to stop using cannabis once you had started?
- ▶ How often during the past 6 months did you fail to do what was normally expected from you because of using cannabis?
- ▶ How often in the past 6 months have you devoted a great deal of your time to getting, using, or recovering from cannabis?
- ▶ How often in the past 6 months have you had a problem with your memory or concentration after using cannabis?
- ▶ How often do you use cannabis in situations that could be physically hazardous, such as driving, operating machinery, or caring for children:
- ▶ Have you ever thought about cutting down, or stopping, your use of cannabis?

This scale is in the public domain and is free to use with appropriate citation:

Adamson SJ, Kay-Lambkin FJ, Baker AL, Lewin TJ, Thornton L, Kelly BJ, and Sellman JD. (2010). An Improved Brief Measure of Cannabis Misuse: The Cannabis Use Disorders Identification Test – Revised (CUDIT-R). *Drug and Alcohol Dependence* 110:137-143.



# College Students and Cannabis

- Understanding the complex messages about cannabis and campus culture today
  - The role of Cannabis in:
    - academic performance
    - mental health
    - future planning
    - impairment
  - Myths, Facts and the Internet
- 

# Marijuana use can have a particularly negative impact on the lives of college students

Among college students, marijuana use has been shown to be associated with:

- lower grade point averages, spending less time studying ([Bell, Wechsler, & Johnston, 1997](#)),
- disruptions to enrollment in college ([Arria et al., 2013](#)),
- reduced rates of degree completion ([Fergusson, Horwood, & Beauvais, 2003](#); [Fergusson & Boden, 2008](#)),
- cognitive impairment ([Pope & Yurgelun-Todd, 1996](#)),
- difficulty concentrating, missing classes, and putting oneself in physical danger ([Caldeira, Arria, O'Grady, Vincent, & Wish, 2008](#))
- Cigarette use, binge drinking, and other illicit drug use also have been shown to be associated with marijuana use in college students ([Bell et al., 1997](#); [Mohler-Kuo et al., 2003](#)).



# Academic Achievement

Students who use marijuana frequently at the beginning of the college career are especially at risk for lower academic achievement than non-users, suggesting that early intervention is critical.

- ▶ Drug Alcohol Depend. 2016 May 1;162:137-45. *Marijuana use trajectories and academic outcomes among college students*. Suerken CK1, Reboussin BA2, Egan KL3, Sutfin EL3, Wagoner KG3, Spangler J4, Wolfson M3.
- ▶ Psychol Addict Behav. 2015 Sep;29(3):564-75. *The academic consequences of marijuana use during college*. Arria AM1, Caldeira KM1, Bugbee BA1, Vincent KB1, O'Grady KE2.



# Mental Health and other consequences of cannabis use for adolescents and young adults

- Social Anxiety
- Psychosis
- Developing Brain
- Driving impairment
- Hospitalizations for edible products
- Lack of adequate labeling of dosage and standards for THC strength
- Marijuana use motives (five factor measure): coping, enhancement, social, expansion, and conformity motives

# Cognitive Impairment

Both acute and chronic exposure to cannabis are associated with dose-related **cognitive impairments, most consistently in attention, working memory, verbal learning, and memory functions.**

These impairments may not be completely reversible upon cessation of marijuana use.

Residual cognitive impairment may interfere with the treatment of marijuana addiction.

Adolescents who used cannabis weekly or had indications of cannabis use disorder before age 18, show larger neuropsychological decline and I.Q. reduction. Socioeconomic difference did not account for the sustained loss of IQ.

# Intervention for Mild to Moderate Cannabis Use Disorder

**For those who have not progressed to full cannabis addiction, screening, brief interventions and referral to treatment (SBIRT) mechanisms may be appropriate.**

- *initial drug screens* by general primary care physicians or counselors to identify at-risk persons,
- *brief advice*—such as a one-time intervention for short consultation and literature,
- *brief interventions*—such as one to twelve sessions of substance use intervention,
- *referral to treatment* for dependent users to receive specialized services, case management, and follow-up support in the community.

**A major method to treat cannabis addiction is through cognitive-behavioral therapy (CBT).**

CBT approaches are meant to:

- increase self-control
- anticipate likely problems
- help patients develop effective coping strategies

(In several studies, most people receiving a cognitive-behavioral approach maintained the gains they made in treatment throughout the following year)

- **Motivational approaches**, (motivational interviewing: MI) produce rapid, internally motivated change.
- **Interpersonal, family, and couples therapy** are used to treat drug use in the system in which was developed and maintained. Including family is particularly useful for helping adolescent patients stay in treatment.

# Treatment of Moderate to Severe Cannabis Use Disorder

## **Marijuana is now the number one reason kids enter treatment—**

- more than alcohol, cocaine, heroin, meth, ecstasy, and other drugs combined
- Data from the National Institute on Drug Abuse found that in 1993 marijuana comprised approximately 8% of ALL treatment admissions, but by 2009 that number had increased to 18%.

## **Treatment, sometimes with enforceable sanctions:**

- Decades of research have shown that treatment reduces crime and saves money.
- Drug courts or interventions that combine positive drug tests with very short sanctions (like 1-3 days in jail) can significantly reduce drug use and help people live a better life.
- Using the judicial system wisely by enforcing abstinence with short stints in jail is an incentive drug users sometimes need—indeed it has shown to work better than traditional, voluntary treatment alone.



# Evidenced Based Treatment for Cannabis Use Disorders

## **Outpatient Treatment**

Behavioral Interventions:

- Cognitive Behavioral Therapy (CBT)
- Motivational Enhancement Therapy/CBT
- Adolescent Community Reinforcement Approach
- MET/CBT with Contingency Management

## **Family Therapy**

- Multidimensional Family Therapy
- Functional Family Therapy
- Multi-Systemic Therapy
- Combinations of Family and Behavioral Interventions

# Increased THC Content

2015 13%

2010 10%

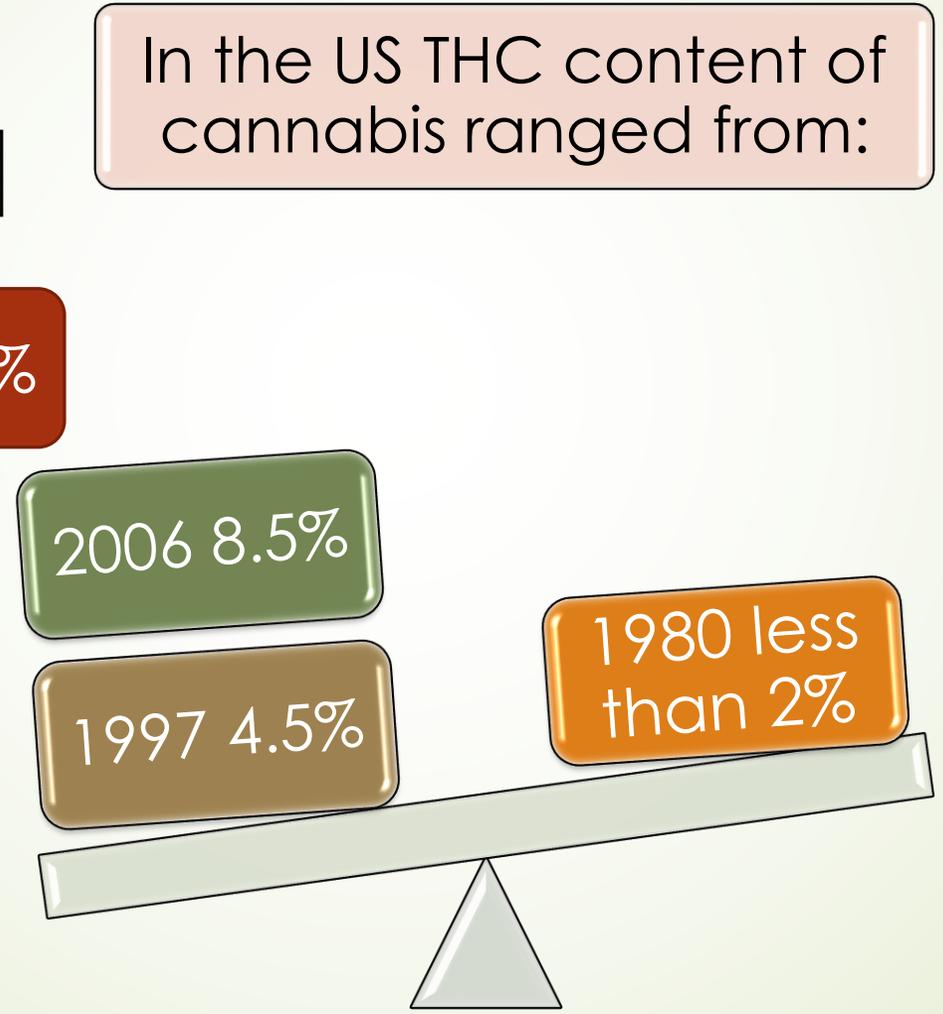
2006 8.5%

1997 4.5%

1980 less than 2%

In the US THC content of cannabis ranged from:

THC content has also increased in other countries





# Higher Potency Cannabis

- *Many researchers have pointed to higher potency as a possible reason for skyrocketing treatment admissions rates globally for cannabis.*
- *THC concentration in the Netherlands, has increased from 9% to 15% in the past 10 years. The increase in THC content is attributed to indoor cultivation and improved breeding*



## **Expectations for treatment of Cannabis Use Disorders**

- Many studies show reductions of use of cannabis with evidenced based interventions however, some of these changes are often short term
- When abstinence is the goal studies report about a 20% abstinence rate

## **Discussion of factors influencing treatment outcomes:**

- Perception of harm in both college population and public
- “Aging out” factors
- Difficulty of identifying individuals in this age group whose CUD will progress over time and aging
- Many students negative consequences may resolve with brief treatment and a period of abstinence or reduced use.



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