Clinical Approaches to Cannabis Use

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Learning Objectives

1. Increase knowledge on cannabis use (CU) to inform patient care.
2. Distinguish between disordered, hazardous, non-hazardous, and medical use.
3. Learn strategies to engage patients in cannabis cessation/reduction.

Learning Objectives

1. **Understand**
2. **Assess**
3. **Intervene**

Cannabis Background

- Term refers to plant and drug
- Contains 500 identified chemicals including 125 phytocannabinoids
  - Delta-9-tetrahydrocannabinol (THC)
  - Cannabidiol (CBD)
- Processed and sold in a variety of products/forms

Image from Wikimedia Commons: https://commons.wikimedia.org/wiki/File:Young_cannabis_plant_in_the_vegetative_stage_01.jpg
Goralick 2023; Connor et al., 2022

Cannabis Usage Trends – Numbers to Know

3rd — Most commonly-used controlled substance after alcohol and tobacco.

20% — Percentage of adults who have used cannabis in the past 12 months. Over 1/4 of adult CU is at daily/near daily use (4.2% of all adults).

18-19 years
16.1 years — Respectively, the median & mean age of initiation of use. Consistent across the globe.

Connor et al. 2021, United Nations World Drug Report 2020 (global data); Jeffers et al. 2021 (US Data); Richmond-Rakerd et al. 2019;

Cannabis Distinctions

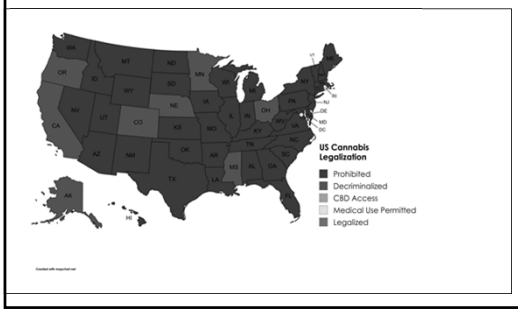
Wide-ranging Therapeutic Uses — Cancer, glaucoma, HIV/AIDS, Hep C, Crohn's, Alzheimer's, any chronic condition that involves nausea, seizures, cachexia, muscle spasms

Pharmacological Dependence & Withdrawal — 50% experience withdrawal (lacks severe AEs)
Tolerance occurs but psychoactive effects persist

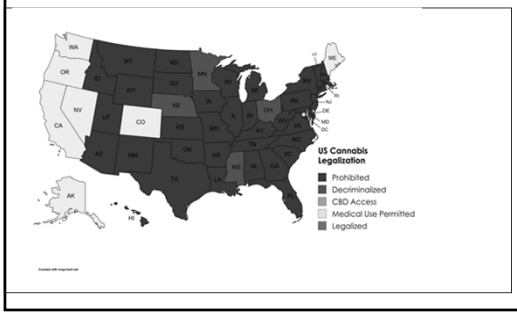
Limited Tx Options — Limited guidance specific to cannabis use disorder
No FDA approved pharmacological tx for CUD

Bridgeman et al., 2017; Connor et al., 2021; Marcoux et al., 2013; Ramaekers et al., 2020, Zamarripa et al., 2022

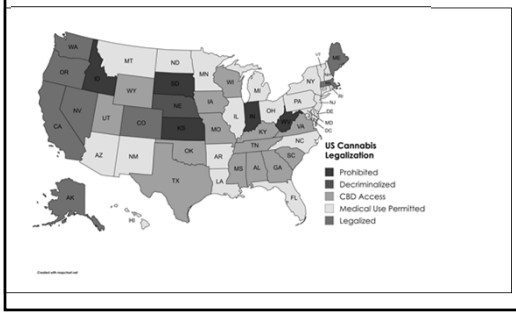
Legal, Social, and Cultural Changes 1978



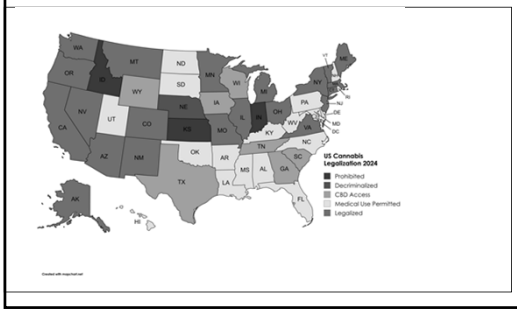
Legal, Social, and Cultural Changes 2000



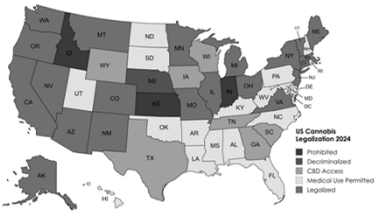
Legal, Social, and Cultural Changes 2016



Legal, Social, and Cultural Changes 2024



Legal, Social, and Cultural Changes



Decreasing legal/occupational consequences

Increasing perception that cannabis is harmless

Increasing cannabis potency

- Data from Hasin 2018; ElSohly et al., 2016, 2021; Compton et al., 2016; Waddell 2021

U.S. Trends Over Time

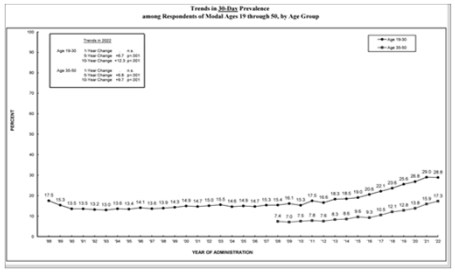


Figure from Patrick et al., 2023 within Monitoring the Future Panel Study annual report.
Montgomery et al., 2022; Bailey et al, 2022; Kerr et al., 2023;

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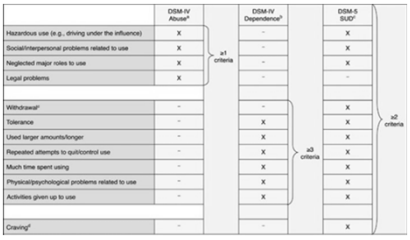
Assessing for Disordered Use

Cannabis Effects

Physiologic Signs in Adolescents and Adults	
Tachycardia	Increased BP
Increased respiratory rate	Red eyes
Dry mouth	Increased Appetite
Nystagmus (involuntary eye movement)	Impaired motor coordination
Slurred speech	Vomiting (Cannabinoid Hyperemisis Syndrome)

Sam Wang (2024)

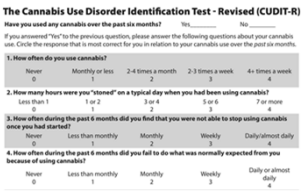
What Constitutes Disordered Use?



1. Simplified
2. Adding withdrawal and craving
3. Removing legal

Figure from Hasin 2018; https://creativecommons.org/licenses/by-nc-nd/4.0/

Assessing for Disordered Use



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

Have you used any cannabis over the past six months? Yes_____ No _____

If you answered "Yes" to the previous question, please answer the following questions about your cannabis use. Circle the response that is most correct for you in relation to your cannabis use over the *past six months*.

1. How often do you use cannabis?

Never	Monthly or less	2-4 times a month	2-3 times a week	4+ times a week
0	1	2	3	4

2. How many hours were you "stoned" on a typical day when you had been using cannabis?

Less than 1	1 or 2	3 or 4	5 or 6	7 or more
0	1	2	3	4

3. How often during the past 6 months did you find that you were not able to stop using cannabis once you had started?

Never	Less than monthly	Monthly	Weekly	Daily/almost daily
0	1	2	3	4

4. How often during the past 6 months did you fail to do what was normally expected from you because of using cannabis?

Never	Less than monthly	Monthly	Weekly	Daily or almost daily
0	1	2	3	4

Adamson et al., 2010

Assessing for Disordered Use

5. How often in the past 6 months have you devoted a great deal of your time to getting, using, or recovering from cannabis?

Never	Less than monthly	Monthly	Weekly	Daily/almost daily
0	1	2	3	4

6. How often in the past 6 months have you had a problem with your memory or concentration after using cannabis?

Never	Less than monthly	Monthly	Weekly	Daily or almost daily
0	1	2	3	4

7. How often do you use cannabis in situations that could be physically hazardous, such as driving, operating machinery, or caring for children?

Never	Less than monthly	Monthly	Weekly	Daily/almost daily
0	1	2	3	4

8. Have you ever thought about cutting down, or stopping, your use of cannabis?

Never	Yes, but not in the past 6 months	Yes, during the past 6 months
0	2	4

Scores of 8 or more indicate hazardous cannabis use, while scores of 12 or more indicate a possible cannabis use disorder for which further intervention may be required.

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.**

Cannabis Assessment

Ask!	What are the reasons for use? Recreational vs. Medical (both?)
Treatment Markers	Record method, quantity, potency (if possible) and frequency of use.
Age of Initiation	Younger age (15 or less) reflects increased likelihood of CUD or hazardous use

Connor et al. 2021, Richmond-Rakerd et al. 2019;

Cannabis Use Disorder Trends

1.4%	Prevalence of CUD Stable rates (2002 – 2019) US NSDUH data
Perceived Treatment Need	Declining over time from 3% to 1%
Treatment Utilization	Declining over time (9% to 3%), lowest usage in 18-25 yr age group

Connor et al. 2021; Askari, Keyes, Mauro, 2021

Hazardous or Risky Cannabis Use

1. Increased risk of psychosis with use of higher potency cannabis
2. Increase in positive symptoms of psychosis in FEP patients who use higher potency cannabis
3. Greater use associated with poorer symptomology in anxiety and mood disorders
4. High potency THC is more likely to be anxiogenic; CBD anxiolytic

Photo by Liz West: https://www.flickr.com/photos/calliope/294571076

Petrilli et al., 2022.; Sharpe et al., 2020; Mammen et al., 2018; Bishford et al. 2020; Marconi et al. 2016

Dual Diagnosis with CUD

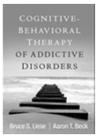
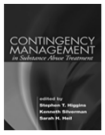
9.3 – 14.5	Any Substance Use Disorder
7.8 – 10.3	Alcohol Use Disorder
6.2 – 6.6	Tobacco Use Disorder
4.6	Opioid Use Disorder

3.9 – 4.7	Psychotic Disorders
2.5 – 5.0	Bipolar I Disorders
2.9 – 3.8	Mood Disorders
2.9 – 3.8	Anxiety Disorders
3.8 – 4.3	PTSD
3.2 – 4.8	Personality Disorder

Hasin & Walsh 2021

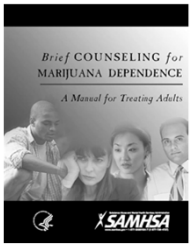
Treatment Approaches to Cannabis Use

CUD Treatment Overview

Motivational Enhancement Therapy	Cognitive Behavioral Therapy	Contingency Management Therapy
		
Focus on CU behavior as discrepant from patient goals	Skill-building, relapse prevention	Reinforce/reward cessation behavior

General Principles of Psychosocial Treatment

- Time-limited (8-16 sessions)
- Individual and group formats
- Evidence-based including among individuals with co-occurring mental health diagnoses
- Meeting people where they are (consideration of harm reduction vs. cessation)
- Includes psychoeducation and understanding patterns of use
- Increasing motivation
- Increasing skill



Steinberg et al., 2005 (SAMSHA publication)

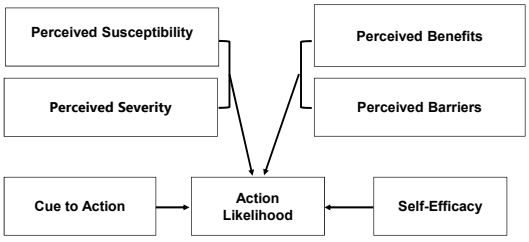
Initial Sessions: Assessment and Psychoeducation

Type of product	Measurement	Example
Dried or fresh cannabis	Percentage (%) or milligrams (mg) per weight of product	THC 0.7% or 7 mg/gram Total THC 14% or 140 mg/gram
Edibles	Per unit or per package	A package with 2 cookies may be labeled as: THC 5 mg per unit, Total THC 5 mg per unit THC 10 mg, Total THC 10 mg per package
Other products (pre-rolls, oils or capsules)	Milligrams (mg) per single unit Milliliter (ml) per dose	THC 2.5 mg/unit, Total THC 2.5 mg/unit THC 10.5 mg/ml, Total THC 10.5 mg/ml

Choose products with lower total THC and an equal or higher amount of total CBD.

Pennypacker et al., 2022; Fischer et al., 2017; Graphics from https://www.ottawapublichealth.ca/

Initial Sessions: Assessment and Psychoeducation



Health Belief Model from Rosenstock 1966; 1998

Psychoeducation within the Health Belief Model

Perceived Susceptibility

"Given your family mental health history, cannabis use increases your risk of developing a psychotic disorder"

"I know you've mentioned that you're not interested in changing your cannabis use but I want to observe that you've been increasing to near daily use. At this rate, you are at risk of becoming overly reliant or dependent on cannabis."

Health Belief Model from Rosenstock 1966; 1998

Psychoeducation within the Health Belief Model

Perceived Susceptibility

"Given your family mental health history, cannabis use increases your risk of developing a psychotic disorder"

"Given the frequency of your use, I think its possible you may already be dependent on cannabis to go through your day."

Perceived Severity

"From what we know, individuals with major depressive disorder have worse outcomes with regular use of cannabis."

"Becoming too dependent on any substance, even cannabis, may make it feel impossible to do day-to-day activities without it."

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Perceived Benefits

"Cutting down on your use may help with you getting your work done."

"Quitting may make social interactions easier for you over time."

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Perceived Barriers

"What are some ways you can have fun with your friends without marijuana?"

"Let's work on finding other ways for you to unwind after a stressful day at school?"

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Cue to Action

Ask and assess about CU!

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Self-Efficacy

Determining ways to increase pt confidence to identify CU goal and plan

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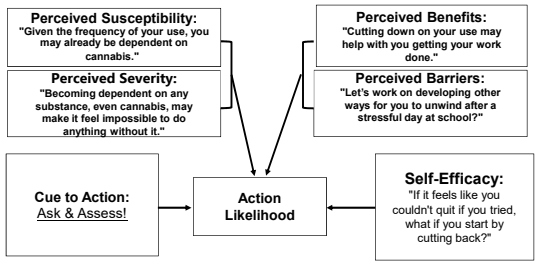
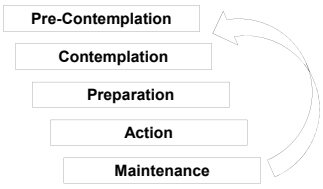


Health Belief Model from Rosenstock 1966; 1998

Continuing Sessions: Enhancing Motivation & Engagement



1. Assessment and psychoeducation can move people from pre-contemplation, contemplation to later stages.
2. Does not necessarily happen orderly or sequentially.

Prochaska & DiClemente 1982;SAMSHA treatment manual 2005

Continuing Sessions: Enhancing Motivation & Engagement

- **"I'm not interested in stopping or reducing use."**
- **"Weed helps with my [anxiety]. I don't think it is a problem."**
- **"My use is no different from others in my life."**

Prochaska & DiClemente 1982;SAMSHA treatment manual 2005

Continuing Sessions: Enhancing Motivation & Engagement

- "I'm not interested in stopping or reducing use."
- "Weed helps with my [anxiety]. I don't think it is a problem."
- "My use is no different from others in my life."

1. **Acknowledge pt's stance and inform.**
2. **Avoid being argumentative.**
3. **Look for discrepancies, contradictions over time.**

Prochaska & DiClemente 1982;SAMSHA treatment manual 2005

Motivational Interviewing Strategies

Identifying Discrepancies

"You've told me that using pot helps with your anxiety. Yet anxiety seems to be something you've struggled with for quite some time."

"You've mentioned that getting a job is your #1 priority. How do you think your pot use might interfere with that goal?"

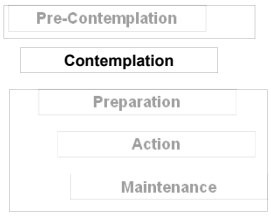
Steinberg et al., 2005 (SAMSHA publication)

Continuing Sessions: Enhancing Motivation & Engagement

- "I enjoy weed but sometimes it makes me feel anxious"
- "I don't like that I'm fighting with [family member] about my cannabis use."

Prochaska & DiClemente 1982;SAMSHA treatment manual 2005

Continuing Sessions: Enhancing Motivation & Engagement



- "I enjoy weed but sometimes it makes me feel anxious"
- "I don't like that I'm fighting with [family member] about my cannabis use."

1. **Validate the insight.**
2. **Inquire about barriers to setting a reduction/cessation goal.**
3. **Enquire about factors to help them decide to make cessation/reduction a goal**

Prochaska & DiClemente 1982;SAMSHA treatment manual 2005

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Double-sided Reflections

Patient: "I know I get high too much but school started and I just want to have fun with my friends."

Provider: "On the one hand, you're using cannabis to have fun with your friends, but on the other hand, you are thinking you use too often."

Steinberg et al., 2005 (SAMSHA publication)

Continuing Sessions: Enhancing Motivation & Engagement

- **"I want to quit (or cut back)."**
- **"I think I'd like to try to quit."**
- **"I'd like to stop but I'm not sure where to start."**

Prochaska & DiClemente 1982;SAMSHA treatment manual 2005

Continuing Sessions: Enhancing Motivation & Engagement

- "I want to quit (or cut back)."
- "I think I'd like to try to quit."
- "I'd like to stop but I'm not sure where to start."

1. **Concretize goals.**
2. **Create a step-wise plan to help pts move toward goals.**
3. **Skill-building and identifying factors to facilitate goal attainment.**

Prochaska & DiClemente 1982;SAMSHA treatment manual 2005

Motivational Interviewing Strategies

Double-sided Reflections

Patient: "I know I get high too much but school started and I just want to have fun with my friends."

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Identifying Discrepancies

"You've told me that using pot helps with your anxiety. Yet you seem to have chronic anxiety concerns that do not seem to improve."

"You've mentioned that getting a job is your #1 priority. How do you think your cannabis use might interfere with that goal?"

Eliciting Self-Motivational Statements

"How does marijuana get in the way of things that are important to you?"

"What makes you think it's time to change?"

"What do you imagine could happen if you continue to use cannabis at the rate you have been doing?"

"What makes you think you could succeed in quitting if you decided to do so?"

Steinberg et al., 2005 (SAMSHA publication)

Continuing Sessions: Increasing Skill Toward Goal Achievement

- **"I don't think I'm going to be able to cut my use in half by next week."**
- **"I was able to refuse when my friend offered a joint."**
- **"I've been able to get to sleep without marijuana on most nights this week."**

Prochaska & DiClemente 1982;SAMSHA treatment manual 2005

Continuing Sessions: Increasing Skill Toward Goal Achievement

- "I don't think I'll be able to cut down my use by half this week."
- "I was able to refuse when my friend offered a joint."
- "I've been able to get to sleep without marijuana on most nights this week."

1. **Validate and reinforce efforts.**
2. **Troubleshooting. Which strategies work when/how/in what context?**
3. **Skill-building/refinement.**

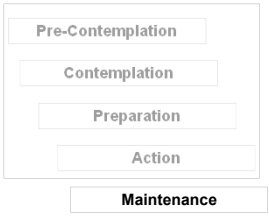
Prochaska & DiClemente 1982;SAMSHA treatment manual 2005

Cognitive and Behavioral Strategies

- Identify supportive relationships
- Delay decision to use (wait 5-30 minutes)
- Remove cannabis paraphernalia from home
- Identify situations prone to use (and change them)
- Substitution (oral & tactile)
- Develop relaxation techniques
- Distractions
- Developing effective self-talk
- Imagery/Visualization

SAMSHA treatment manual 2005

Continuing Sessions: Increasing Skill Toward Goal Achievement

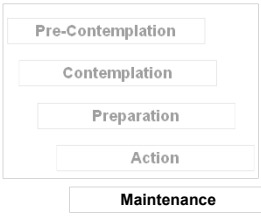


- "I've done it!"
- "I haven't used any cannabis in two months."

1. **Relapse and response prevention work**
2. **Regularly assessing use within the first year of goal attainment.**

Prochaska & DiClemente 1982;SAMSHA treatment manual 2005

Continuing Sessions: Increasing Skill Toward Goal Achievement



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Takeaways

Takeaways

1. Cannabis use rates and cannabis potency continue to increase.
2. Brief assessment tools can inform whether cannabis use is disordered, hazardous, or non-hazardous.
3. Incorporate motivational interviewing and cognitive behavioral strategies into clinical care to increase patient engagement in reduction/cessation goals.

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