PainWeek

ADVANCED EDUCATION

CERTIFICATION SERIES

CANNABINOIDS

Behavioral Interventions for Marijuana Use Disorder

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Title & Affiliation

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Disclosure

Dr. Cosio is speaking today based on his experiences as a psychologist employed by the Veterans Administration. He is not speaking as a representative of or as an agent of the VA, and the views expressed are his own.

Learning Objectives

- Review the diagnosis of cannabis use disorder (CUD) in adults using the ICD-10 and DSM-5.
- Identify the clinical manifestations and persistent symptoms of CUD.
- Review methods of screening and assessment for CUD.
- Discuss the different types of behavioral interventions for CUD.
- Explain options for patients who are unable to access structured treatment.

What We Know About Marijuana?

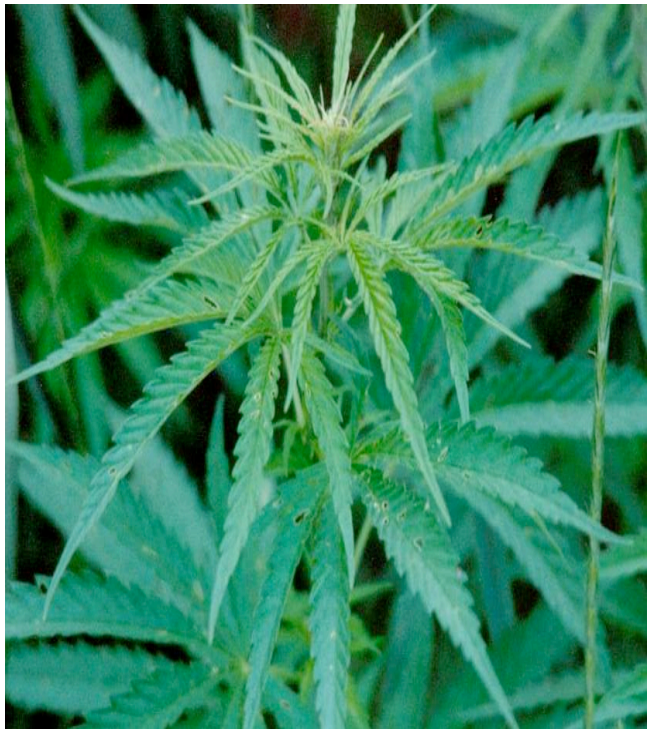
- Also called cannabis
- 80-100 different types
- 480 components in cannabis
- 113 cannabinoids
- Not recommended to smoke anything—lungs not built as filter system
- Helps with sleep, mood, appetite, enhances effects of opioids, and helps offset side effects (constipation or respiratory suppression)
- Pharmaceutical companies have not been getting involved because it is schedule I—no federal approval for clinical trials
- Marinol, nabilone, rimonabant, and Sativex® are legal formulations of marijuana
- May cause appetite stimulation, reduce pain in HIV neuropathy, reduce spasticity in multiple sclerosis, cause weight gain in wasting syndromes, reduce intraocular pressure in glaucoma, reduce shortness of breath in asthma, and reduce vomiting due to cancer chemotherapy

Types of Cannabis

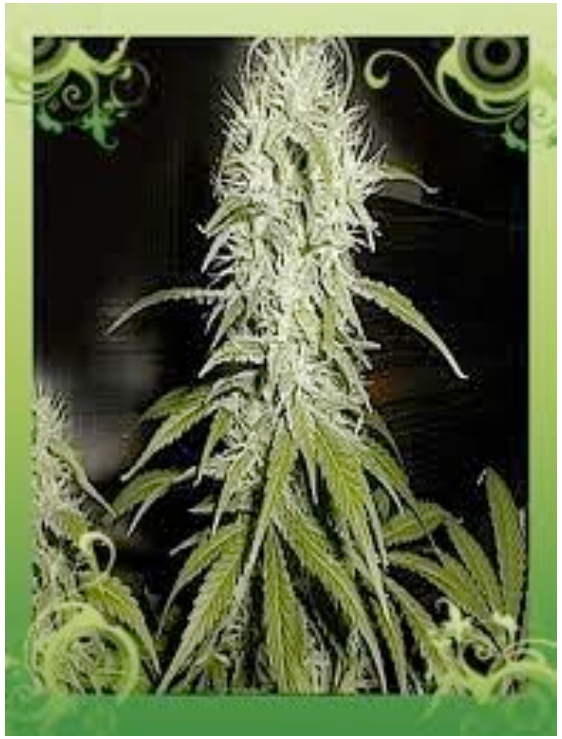
- 3 classes are not psychologically active: CBG, CBC, and CBD
- THC, CBN, CBDL, and more are
- CBD most abundant- 40% of resin
- CBD reduces intensity of THC
- 6 states outlaw CBD: Idaho, South Dakota, Nebraska, Kansas, Indiana, West Virginia
- CBD content real only in Colorado, Washington, Oregon, and Alaska
- CBD is still schedule I according to DEA

Types of Marijuana

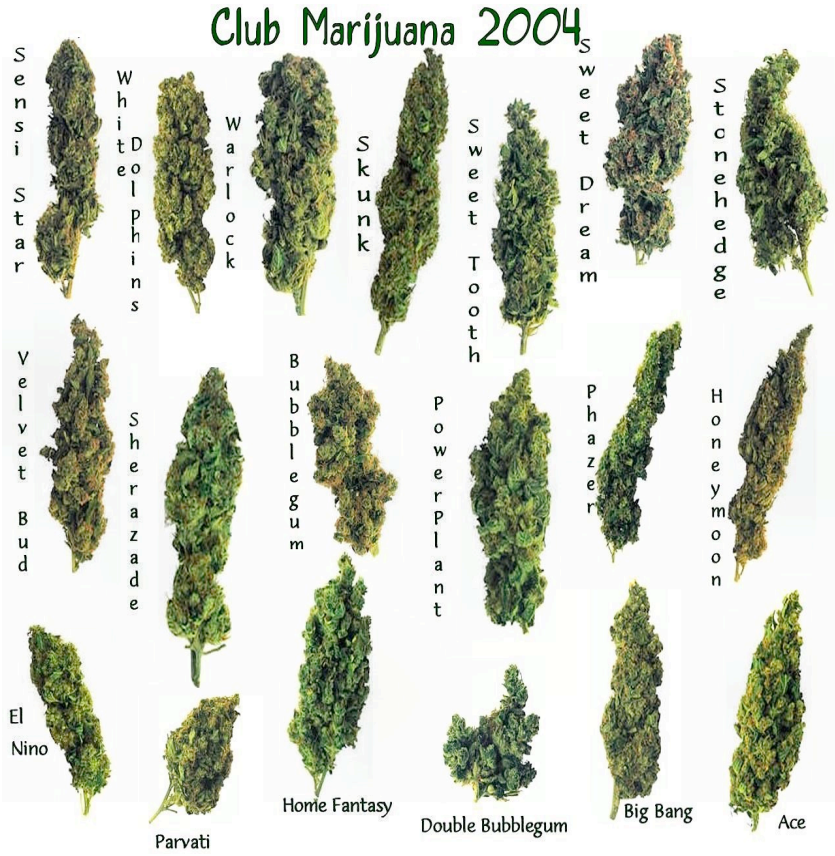
Sativa: think SUNNY



Indica: in-da-couch



Infinite Strains & Hybrids

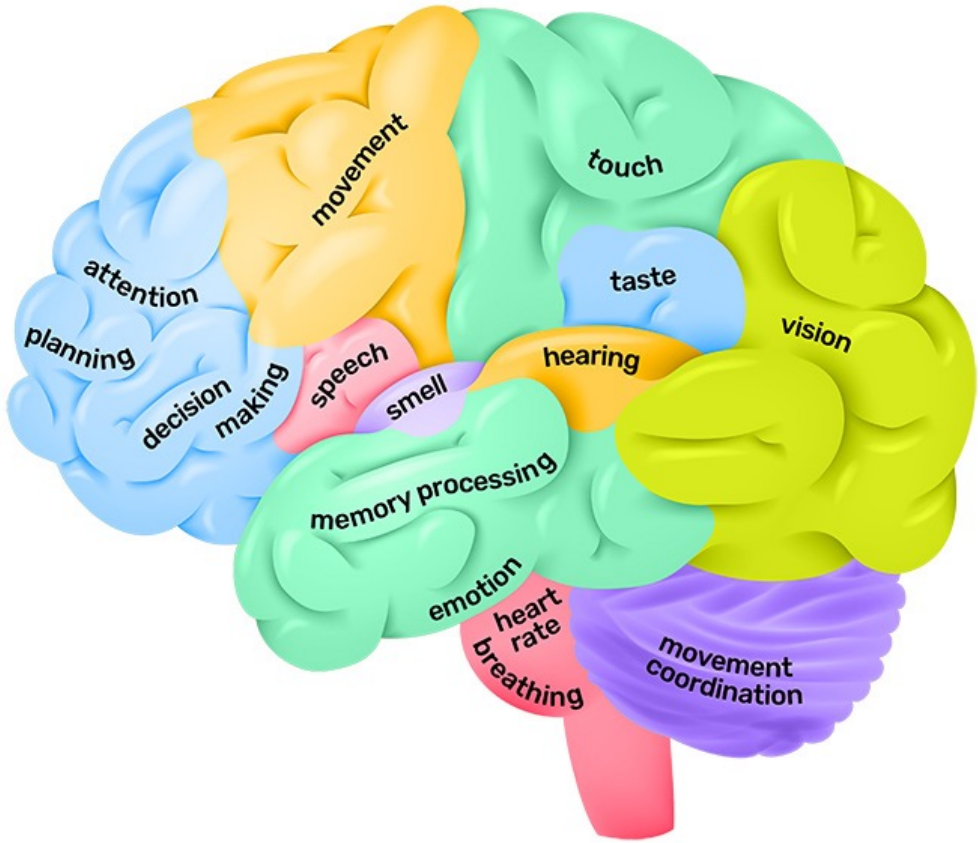


Adverse Reactions to Marijuana

- Dizziness
- Lightheadedness
- Fatigue
- Muscle spasms
- Dry mouth
- Short-term memory impairment
- Suicide attempts
- Psychosis or mania
- Paranoia
- Agitation
- Motor vehicle accidents
- Contaminants
- Infectious diseases
- Recurrent nausea, vomiting, and crampy abdominal pain
- Psychological addiction

Endogenous Cannabinoids

- Areas of brain affected by endogenous cannabinoids:
  - Pleasure
  - Memory
  - Thinking
  - Concentration
  - Movement
  - Coordination and sensory
  - Time perception
- THC attaches to receptors on neurons in these brain areas
- Activates them and disrupts various mental and physical functions
- Marijuana use during adolescence can cause long-term or possibly permanent adverse changes in brain development



National Institute on Drug Abuse. Marijuana Research Report Series. Bethesda, MD; 2015. www.drugabuse.gov/ publications/research-reports/marijuana/what-marijuana.

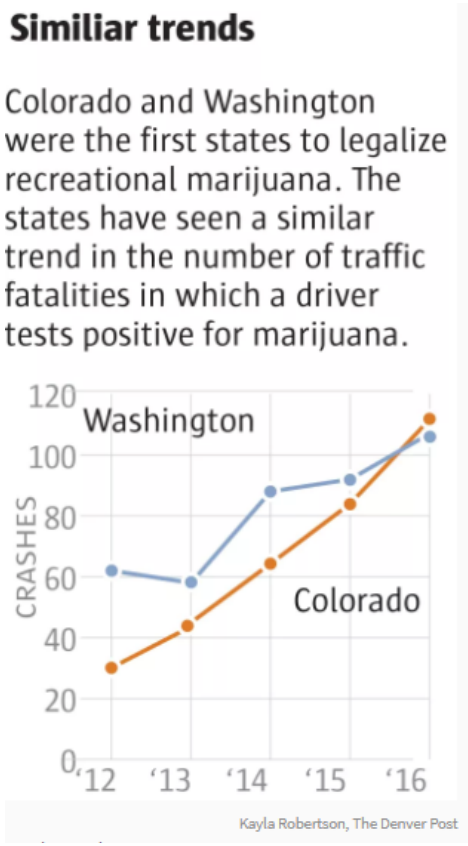
Medical Emergencies

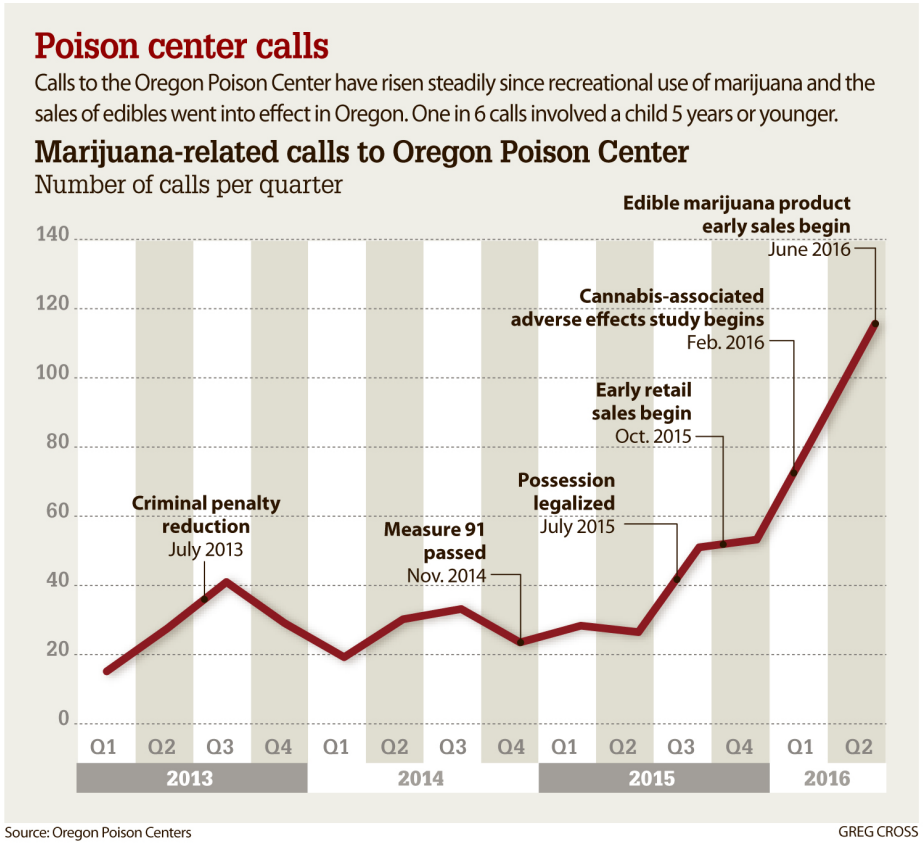
- Nearly 456,000 drug-related ED visits in 2011 in US in which marijuana use was mentioned in medical record, a 21% increase over 2009
- Noted that ED visit may not have been directly related to marijuana use

SAMHSA. Drug Abuse Warning Network. Selected Tables of National Estimates of Drug-Related Emergency Department Visits. Rockville, MD: 2011. www.samhsa.gov/data/sites/default/files/ DAWN127/DAWN127/sr127-DAWN-highlights.pdf.

Medical Emergencies

www.ohsu.edu/sites/default/files/2018-11/Cannabis-report-FINAL%20november%2018%20PDF.pdf.





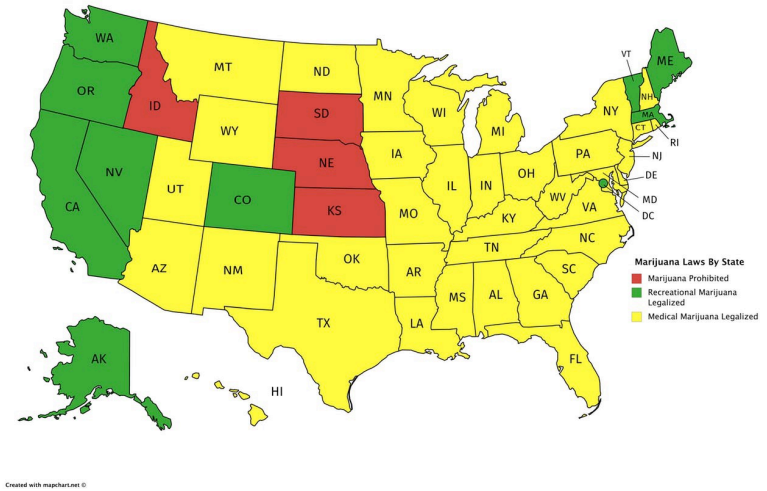
moneymorning.com/2020/01/22/this-map-shows-the-10-states-that-could-legalize-marijuana-in-2020/.

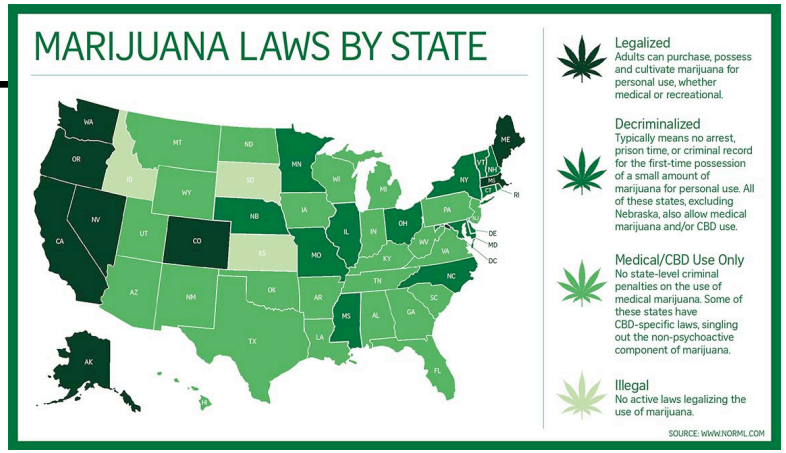
ESP
Evidence-based
Synthesis Program

OREGON
HEALTH
& SCIENCE
UNIVERSITY

CIVIC
Center to Improve Veteran Involvement in

"It's Organic"
"It's an Herb"
"It's Natural"
"It's Medicine"
"It's a Political Right"
"It's American - An Entrepreneurial Opportunity"
"It's Legal" "It's Just Weed"
"A Gift From God"





Shift in Beliefs About Risks*

www.NORML.com.
www.mapchart.net.

Cannabis Statistics

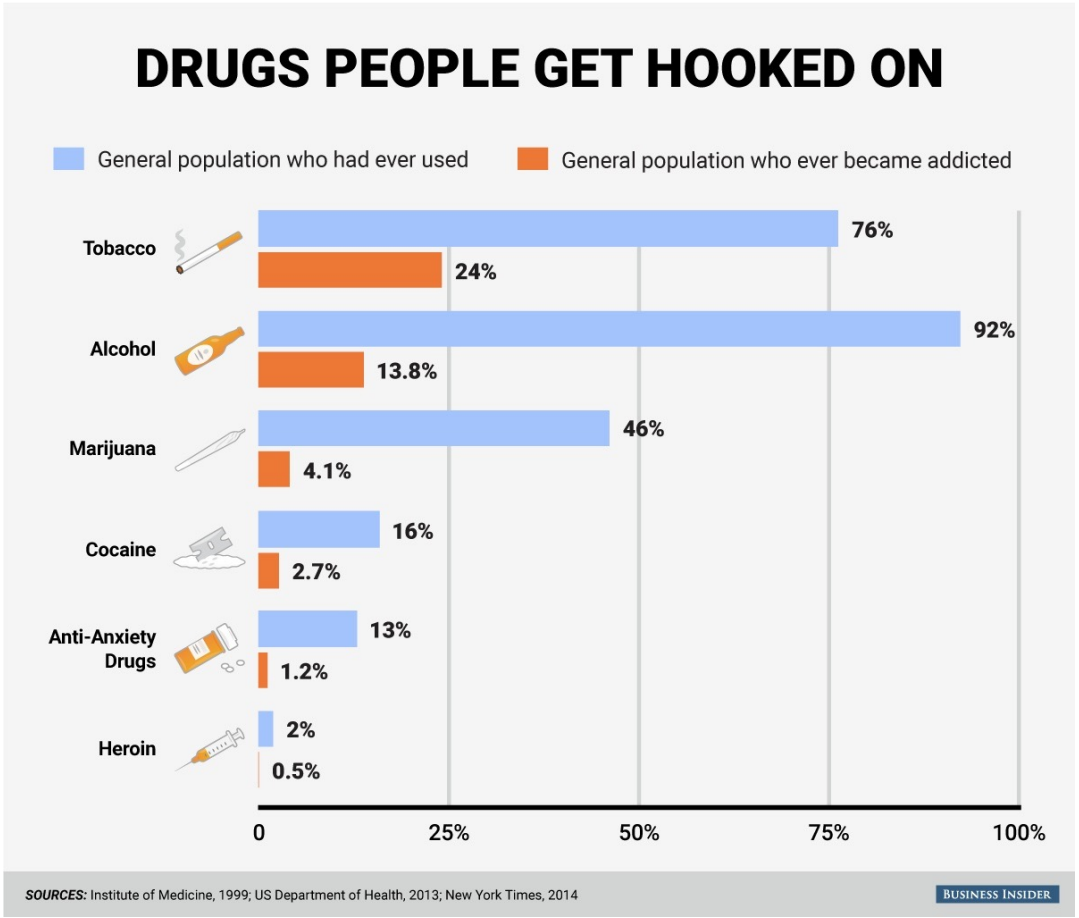
- Cannabis is most used illicit drug across globe with an estimated prevalence among adults of 2.6%-5%
- Cannabis is most used illicit drug in country with about 22 million Americans being current users
- Of 7 million Americans with an illicit drug use disorder in 2014, 4 million also had disorders related to cannabis use
- Cannabis is 3rd most used psychoactive substance worldwide, after alcohol and tobacco

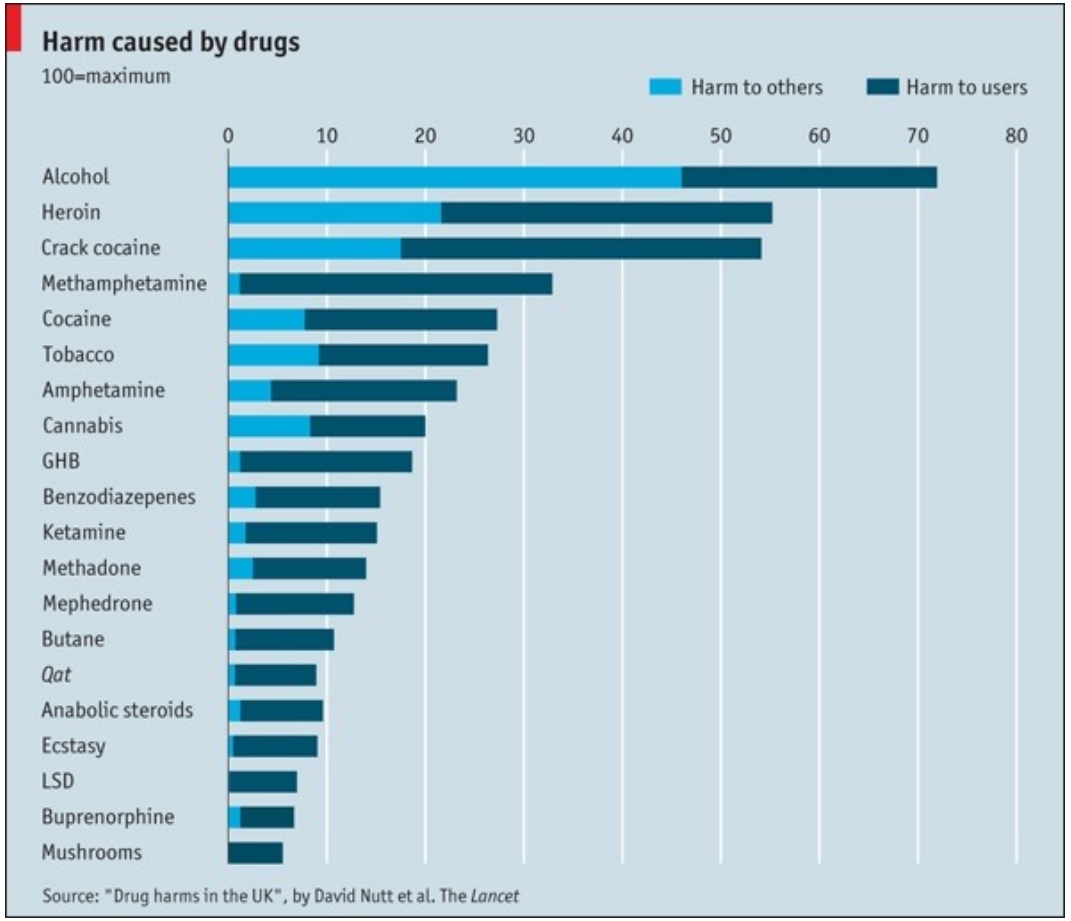
NIH. Marijuana use disorder is common and often untreated. 2016. www.nih.gov/news-events/news-releases/marijuana-use-disorder-common-often-untreated.
SAMHSA. Center for Behavioral Health Statistics and Quality. Behavioral health trends in the United States: Results from the 2014 National Survey on Drug Use and Health. Rockville, MD: 2015. www.samhsa.gov/data/sites/default/files/NSDUH-FRR1-2014/NSDUH-FRR1-2014.pdf.
United Nations Office on Drugs and Crime, World Drug Report 2015 (United Nations publication).
United Nations Office on Drugs and Crime, World Drug Report 2020 (United Nations publication, Sales No. E.20.XI.6).

Cannabis Statistics

- 2.5% of adults — nearly 6 million people — experienced CUD in past year, while 6.3% had met diagnostic criteria for disorder at some point in their lives according to NIH (2016)
- Percentage of Americans who reported using marijuana in past year more than doubled between 2001-2002 and 2012-2013, and increase in CUD during that time was nearly as large
- Other findings:
  - About twice as common among men than women
  - Younger age groups are much more likely to experience disorder than people age 45 and over
  - Risk for onset of disorder was found to peak during late adolescence and among people in their early 20s, with remission occurring within 3 to 4 years
  - Past-year and lifetime CUD were strongly and consistently associated with other substance use and mental health disorders

Cannabis Statistics

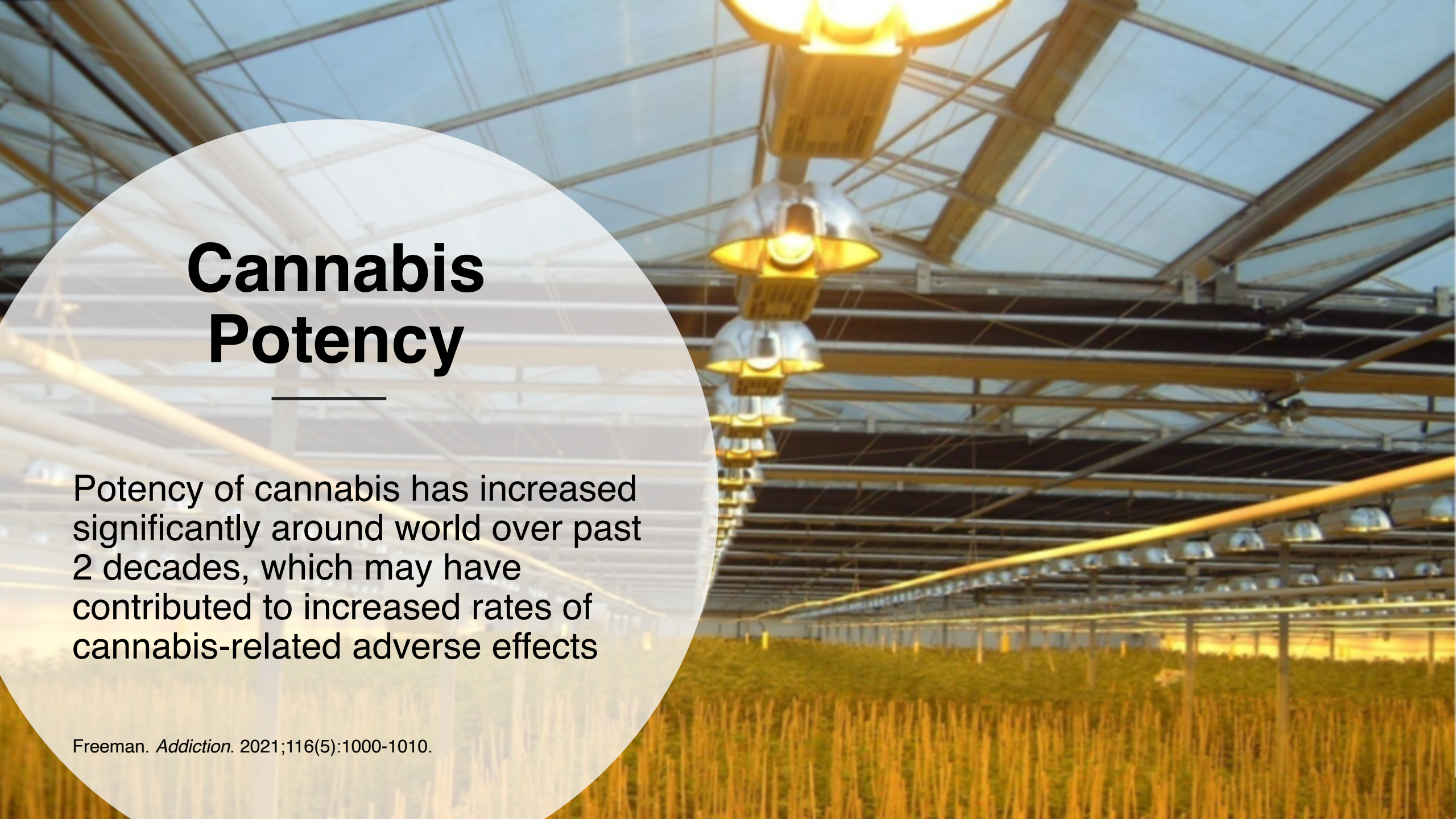




Transitions in Cannabis Use

- Most cannabis users who develop cannabis use disorder (CUD) do so after several years of use and with at least weekly use
- Increased frequency of cannabis use and use of more potent cannabis products are associated with greater risk of CUD
- Factors associated with transitions from first use to heavy use or to CUD include:
  - Earlier age of first use
  - Early and rapid progression to frequent use
  - Concurrent use of other psychoactive substances (alcohol and tobacco)
  - Comorbid psychiatric disorders (depression, anxiety, trauma)
  - Peer use of drugs
  - Social isolation

Alcover. *Am J Addict*. 2019;28:465.
Behrendt. *Drug Alcohol Depend*. 2009;99:68.
Callaghan. *Drug Alcohol Depend*. 2020;217:108271.
Craft. *Psychol Med*. 2020;50:2364.
Fergusson. *Drug Alcohol Depend*. 2008;96:165.
Gunn. *Addict Behav*. 2020;105:106329.
Hines. *Addiction*. 2015;110:1311.
Silins. *Drug Alcohol Depend*. 2013;133:452.
van der Pol P. *Drug Alcohol Depend*. 2013;133:352.



Cannabis Potency

Potency of cannabis has increased significantly around world over past 2 decades, which may have contributed to increased rates of cannabis-related adverse effects

Freeman. *Addiction*. 2021;116(5):1000-1010.

Forms of THC

- Last decade has seen incredible changes in active mood-altering chemical, THC
- Can be obtained by users in more forms then ever before
- More folks are developing problems with it and thus interventions are occurring with increasing frequency

Eagles Bridges Family Intervention Team. About Marijuana Interventions. 2021. ebintervention.org/alcohol-drug-interventions/intervention-marijuana-addiction/

Methods of Use:

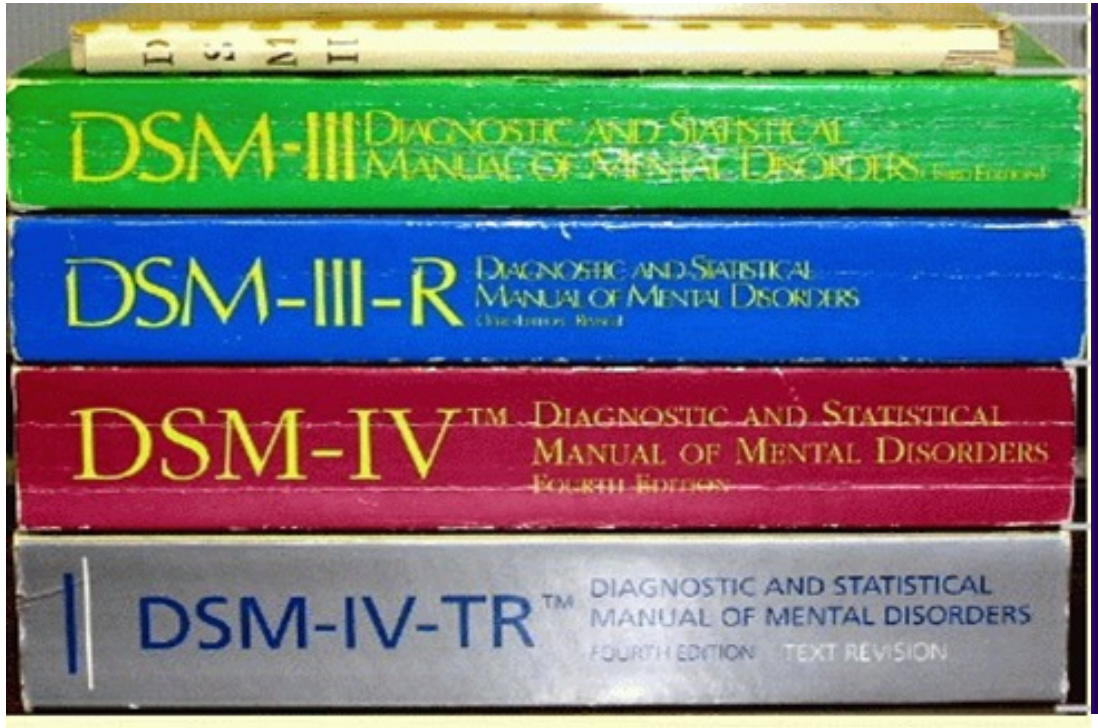
Paraphernalia:

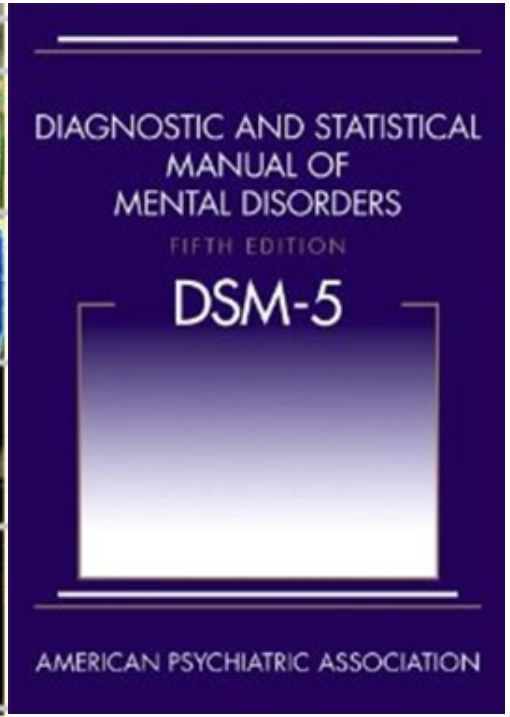
- Joints
- Blunts
- Cigars
- Roaches
- Roach clips
- E-cigarettes
- Vape tools
- Bowls
- Pipes
- Bongs
- Rolling papers
- Bongs
- Hookahs

Pharmacy vs Dispensary

- What do we still not know:
  - Quality control: was it tested for contaminants
  - Product form: smoke it, eat it, cream, vape?
  - No warnings or reported side effects
  - No established dose to treat a condition
- Still have some questions about:
  - Questions about dosing?
  - Secondary outcomes?
  - Impact on pain population?
  - Preparations?
  - Routes of administration?

Changes to DSM-5 in 2013





How Is a SUD Defined?

- APA (DSM-5) revised chapter of “Substance-Related & Addictive Disorders” includes substantive changes to disorders
- Patient is diagnosed with a SUD if he/she exhibits a maladaptive pattern of substance use leading to clinically significant impairment or distress
- As manifested by 2 (or more) of following, occurring within a 12-month period

American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. Washington, DC: 2013.

How Is a SUD Defined?

- **Impaired Control**
  - Using more than intended or is prescribed
  - Persistent desire to use or unsuccessful attempts to quit
  - Increasing time spent using or getting
  - Craving or strong desire to use
- **Social Impairment**
  - Failing to fulfill major role obligations
  - Giving up important life activities due to use
  - Continuing to use despite knowledge of negative effects

How Is a SUD Defined?

- **Risky Use**
  - Using in physically hazardous situations
  - Continuing to use despite knowledge of negative effects

- **Pharmacological Criteria**
  - Tolerance, needing to use more to get same effect
  - Withdrawal symptoms from detoxing (nausea, insomnia, anxiety, sweating, trembling)

SEVERITY	RANGE
MILD	2-3/11
MODERATE	4-5/11
SEVERE	6+/11

Diagnostic Criteria

DSM V Diagnostic Criteria: Substance Use Disorder *SEVERITY: 2-3: mild 4-5: moderate 6 or more: severe*
1. Taking the substance in larger amounts or for longer than you meant to.
2. Wanting to cut down or stop using the substance but not managing to do so.
3. Spending a lot of time getting, using, or recovering from use of the substance
4. Cravings and urges to use the substance
5. Not managing to do what you should at home, work, or school because of substance use
6. Continuing to use, even when it causes problems in relationships
7. Giving up important social, occupational, or recreational activities because of substance use
8. Using substances again and again, even when it puts you in danger
9. Continuing to use, even if you have a physical or psychological problem that could have been caused or made worse by the substance
*10. Needing more of the substance to get the effect you want (tolerance)
*11. Development of withdrawal symptoms, which can be relieved by taking more of the substance
*Criteria not met if taking prescribed drugs under supervision

ICD-9-CM vs. ICD-10-CM	ICD-9-CM Code Types			ICD-10-CM Code Types		
	Use	Abuse	Dependence	Use	Abuse	Dependence
Substance						
Tobacco (Nicotine)	X			X		X
Alcohol		X	X	X	X	X
Other psychoactive substances (e.g., opioids, cannabis, hallucinogens etc.)		X	X	X	X	X
Non-psychoactive substances*		X	X		X	

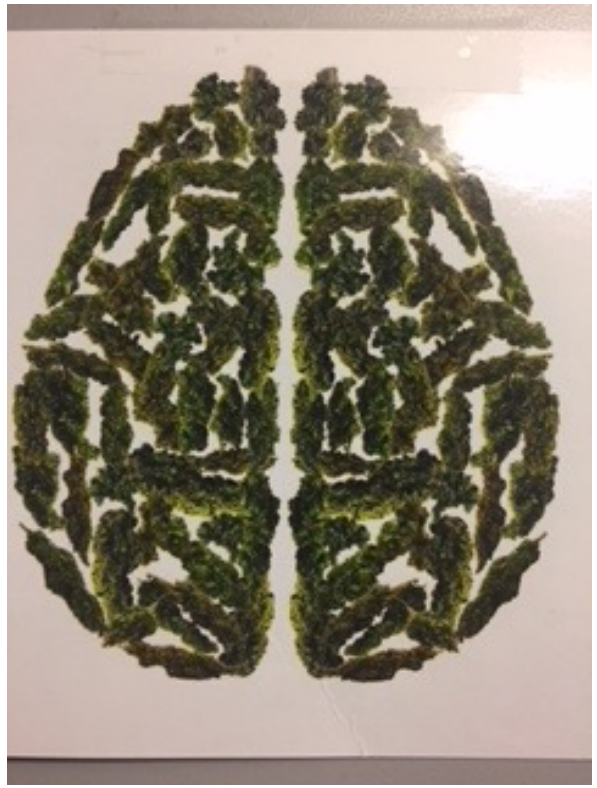
Cannabis Use Disorder

- Cannabis use disorder (CUD) develops in approximately 10% of regular cannabis users and up to 50% of chronic daily users
- May be associated with cognitive impairment, poor school or work performance, and psychiatric comorbidity such as mood disorders and psychosis
- Psychosocial problems and CUD is bidirectional—employment problems, low attainment, low QOL
- Defining feature of CUD is loss of control over cannabis use, epitomized by persisting use despite knowledge of adverse consequences
- Common ED presentations associated with acute cannabis use include psychiatric (anxiety, agitation, or psychosis), cardiovascular (chest pain, palpitations), or nausea/vomiting (cannabinoid hyperemesis syndrome)
- Second most common reason for seeking SUD after alcohol

Gorelick. *UpToDate*. 2021. www.uptodate.com/contents/cannabis-use-disorder-in-adults.
Schmid. *Drug Alcohol Depend*. 2020;206:107726.
United Nations Office on Drugs and Crime, World Drug Report 2015.

Clinical Practice Guidelines

- Awareness of federal, state, and institutional policies and laws
- Screen for signs of misuse, abuse, and addiction
- Counsel patients on harms and risks
- Advise on route of administration
- Continually monitor cannabis use, functional status, symptom severity, and use of other substances
- Monitor of other harms (MVA or falls)
- Establish goals of care for cannabis use
- Advise on discontinuation or referral to substance use treatment



Screening

- ***QUESTION: "In the past year, how often have you used cannabis (or marijuana)?"***
- "Services for accurate diagnosis, effective treatment, & appropriate care can be offered or referred" (US Preventive Services Task Force, 2020)
- Screening for CUD is often prompted by signs or symptoms from patient's history or physical examination:
  - Impairment in social, academic, or vocational functioning that is NOS
  - Exacerbation of psychiatric conditions (depression, anxiety)
  - Chronic conjunctival injection
  - Yellowing of fingertips
  - Cannabis odor on clothing
  - Increase in appetite

Gorelick. *UpToDate*. 2021. www.uptodate.com/contents/cannabis-use-disorder-in-adults.
Silins. *Drug Alcohol Depend*. 2013;133:452.
US Preventive Services Task Force, Krist. *JAMA*. 2020;323:2301.

Drug Testing

- Because drug testing is more intrusive and expensive, typically reserved for screening in safety-sensitive workplaces or for high-risk populations
- Drug testing for recent cannabis use has advantage of objectivity and when an observed sample collection, essentially 100% percent sensitive
- Urine is most used for testing, but saliva, blood, and hair are alternatives
- Testing almost always measures THC, but also cannabinoids, such as cannabidiol (CBD) with less sensitivity or not at all
- THC or its metabolites may be detectable in urine of chronic heavy users of cannabis for up to 6 weeks

Gorelick. *UpToDate*. 2021. www.uptodate.com/contents/cannabis-use-disorder-in-adults.
Karschner. *Clin Chem*. 2020;66:888.

Assessment

- Should be conducted in a private setting and in nonjudgmental fashion
- As part of a complete assessment of cannabis use disorder, recommend structured interview including inquiry about:
  - Cannabis use including amount, frequency, route
  - Attempts to cut back or stop cannabis use
  - Effects on occupational, academic, or social functioning
  - Use in high-risk situations
  - Mental status examination
  - Psychiatric history
  - Medical history (includes labs)
  - Social history
  - Family history

Gorelick. *UpToDate*. 2021. www.uptodate.com/contents/cannabis-use-disorder-in-adults.

Psychometric Instruments

- Severity of Dependence Scale (SDS)
- Cannabis Abuse Screening Test (CAST)
- Cannabis Use Disorders Identification Test – Revised (CUDIT-R)
- Problematic Use of Marijuana
- Cannabis Use Problems Identification Test (CUPIT)
- Marijuana Screening Inventory
- Cannabis Situational Confidence Questionnaire
- Cannabis Problems Questionnaire
- Cannabis Self Efficacy Scale
- Global Problems Scale

Gossop. *Br J Addiction*. 1992;87:1527-1536.
Rees. A brief cognitive-behavioral intervention for cannabis dependence: Therapist's treatment manual. National Drug & Alcohol Research Center. 1998. ndarc.med.unsw.edu.au/sites/default/files/ndarc/resources/TR.064.pdf.
Sitharthan. *Drug Alcohol Depend*.1990;27:87-94.
Stoner. 2016. adai.uw.edu/pubs/pdf/ 2016marijuanascreenassess.pdf.
Williams. *Drug Alcohol Depend*. 1994;35:239-243.

Differential Diagnosis

- Nonproblematic cannabis use

NOTE: Key features suggesting diagnosis of CUD include patient denial of cannabis-related problems in face of reports from reliable collateral sources (family, school, employer) and patient denial of cannabis use in face of objective evidence to contrary (urine drug testing).

- Other mental disorders that may resemble symptoms of CUD
    - Cannabis-related anxiety may resemble panic attacks
    - Chronic neglect of usual activities may resemble dysthymia or other mood disorders

Gorelick. *UpToDate*. 2021. www.uptodate.com/contents/cannabis-use-disorder-in-adults.

Treatment Initiation and Goals

Goal either to:

- Sustain from cannabis use (abstinence model)
- Reduce use that ameliorates cannabis-associated problems (harm reduction model)

Stepped Care Model:

- Early sessions should focus on encouraging patient to explicitly identify pros & cons of their cannabis use and balance them (motivational enhancement)
- Mild reduction of frequency or amount of cannabis use or limiting cannabis use to low-risk situations
- Other goals for treatment include improved psychological, social, and occupational functioning

Treatment Settings:

- Usually occurs in outpatient setting
- Residential or inpatient treatment reserved for those with polysubstance use disorders
- Inpatient hospitalization reserved for patients with severe depression, suicidality, or psychosis

Gorelick. *UpToDate*. 2021. www.uptodate.com/contents/cannabis-use-disorder-in-adults.
Tomko. *Curr Addict Rep*. 2019;6:429.

Cannabis Withdrawal

- Approximately 1/2 of patients in treatment for CUD experience a withdrawal syndrome on abrupt reduction or cessation of heavy or prolonged cannabis use (Bahji et al, 2020)
- These uncomfortable symptoms serve as a negative reinforcement for resumption of cannabis use in a large proportion of individuals (Gorelick et al, 2012)

Bahji. *JAMA Netw Open*. 2020;3:e202370.
Gorelick. *Drug Alcohol Depend*. 2012;123:141.

Psychosocial Treatments

- Suggested rather than medication treatment as initial therapy for CUD
- About 7% of people with past-year CUD received any marijuana-specific treatment, compared with slightly less than 14% with lifetime CUD
- May include:
  - Cognitive behavioral therapy (CBT)
    - Has most robust evidence of efficacy for CUD
  - Motivational enhancement therapy (MET)
    - Studies suggest efficacy for CUD is similar to CUD
  - Combined CBT + MET
    - Suggested for patients unable to achieve their treatment goal with either therapy alone
  - Contingency management (CM)
    - Studies suggests it can serve as an augmentation but not as a stand-alone treatment

Gates. *Cochrane Database Syst Rev*. 2016:CD005336.
NIH. Marijuana use disorder is common and often untreated. 2016. www.nih.gov/news-events/news-releases/marijuana-use-disorder-common-often-untreated.
Stephens. *J Consult Clin Psychol*. 2000;68:898.

Psychosocial Treatments

- Systematic research on treating CUD started with psychosocial interventions in 1980s and pharmacological interventions in 2000s
- Past research has shown that motivational interviewing (MI), MET, CBT, CM, and multidimensional family therapy all have evidence of moderate effectiveness
- All lead to reductions in use of between 20%-60% after short-term therapy
- Mean dropout rate was 28% and mean abstinence rate was 26%
- Which should be used based on patient preference and therapist expertise

Bobb. *Curr Treat Options Psych*. 2014;1:163-174.
Budney. *Addict Sci Clin Pract*. 2007;4(1):4-16.
Dutra. *Am J Psychiatry*. 2008;165(2):179-187.

2016 Cochrane Review

- 23 studies involving 4045 adult participants who used cannabis frequently
- Made up of at least 70% daily or near daily users, or reported to have CUD, or seeking treatment for cannabis use
- Average age of participants was 28.2 years; most participants were male
- Most studies were conducted in the USA (15), Germany (2), Australia (2), Brazil (1), Canada (1), Switzerland (1), and Ireland (1)
- CBT, MET, MET + CBT, CM, social support, mindfulness-based meditation, and drug education and counselling
- Consistently effective in reducing frequency of use, quantity used, and severity of dependence
- Not effective in improving cannabis-related problems, motivation to quit, other substance use, or mental health
- MET + CBT interventions were MOST EFFECTIVE
- CM used as an adjunct to MET + CBT

Gates. *Cochrane Database Syst Rev*. 2016;5.

Cognitive Behavioral Therapy (CBT)

- According to cognitive model in CUD, it is accepted that cannabis use is a learned behavior and achievement of abstinence is also a learning process
- Behavioral methods focus on interrupting compulsive cannabis use and rewarding successful attempts
- Cognitive restructuring includes modifying unrealistic expectancies, changing maladaptive beliefs about effects of cannabis and enhancing motivations toward sobriety

Guven. Cognitive behavioral therapy in cannabis use disorder. In Preedy, ed. *Handbook of Cannabis and Related Pathologies*. 2017;109.

Sample Brief CBT Intervention for CUD

SESSION 1: Setting the Scene & Introduction to MET

- Setting SMART goals

SESSION 2: Planning to Quit

SESSION 3: Managing Withdrawal & Cognitive Restructuring

SESSION 4: Review of Cognitive Strategies & Skills Enhancement

- Sleep hygiene
- Progressive muscle relaxation

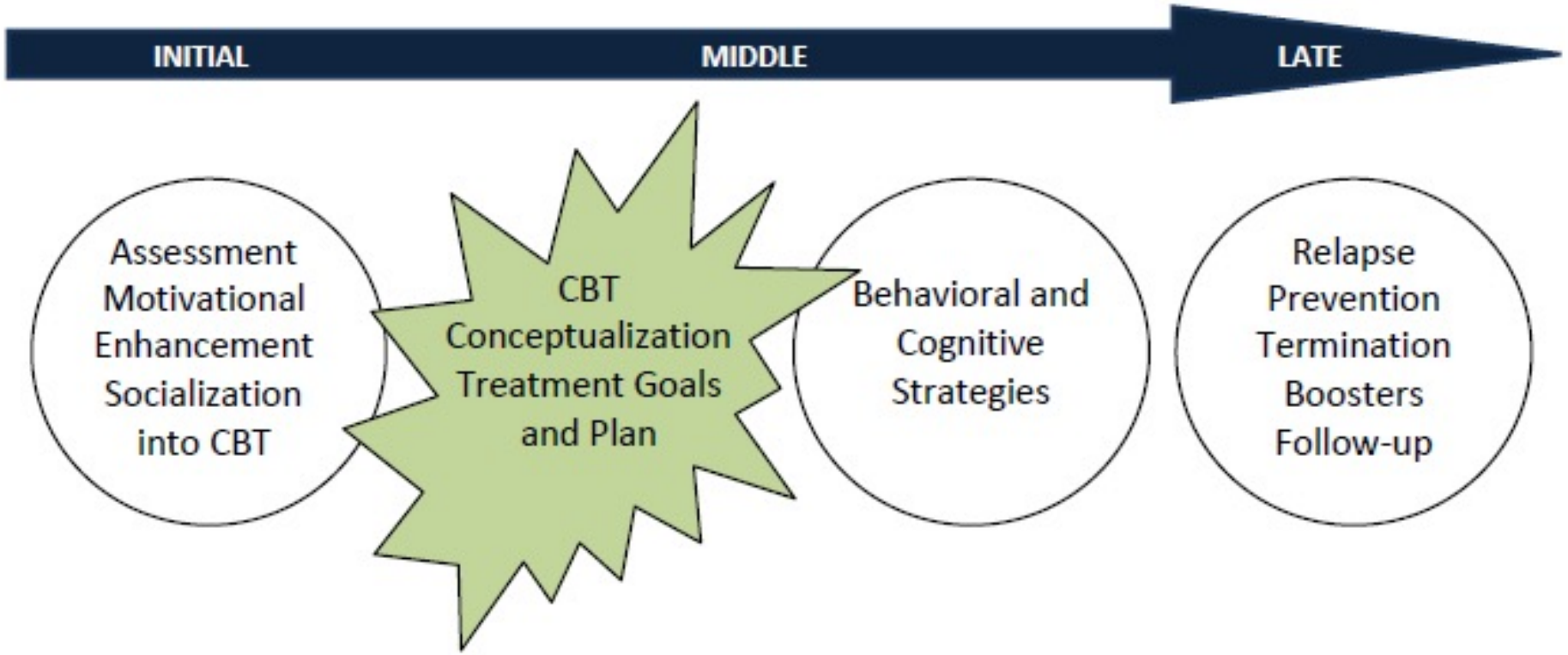
SESSION 5: Reviewing & Consolidating

- Assertiveness training
- Stress/anger management

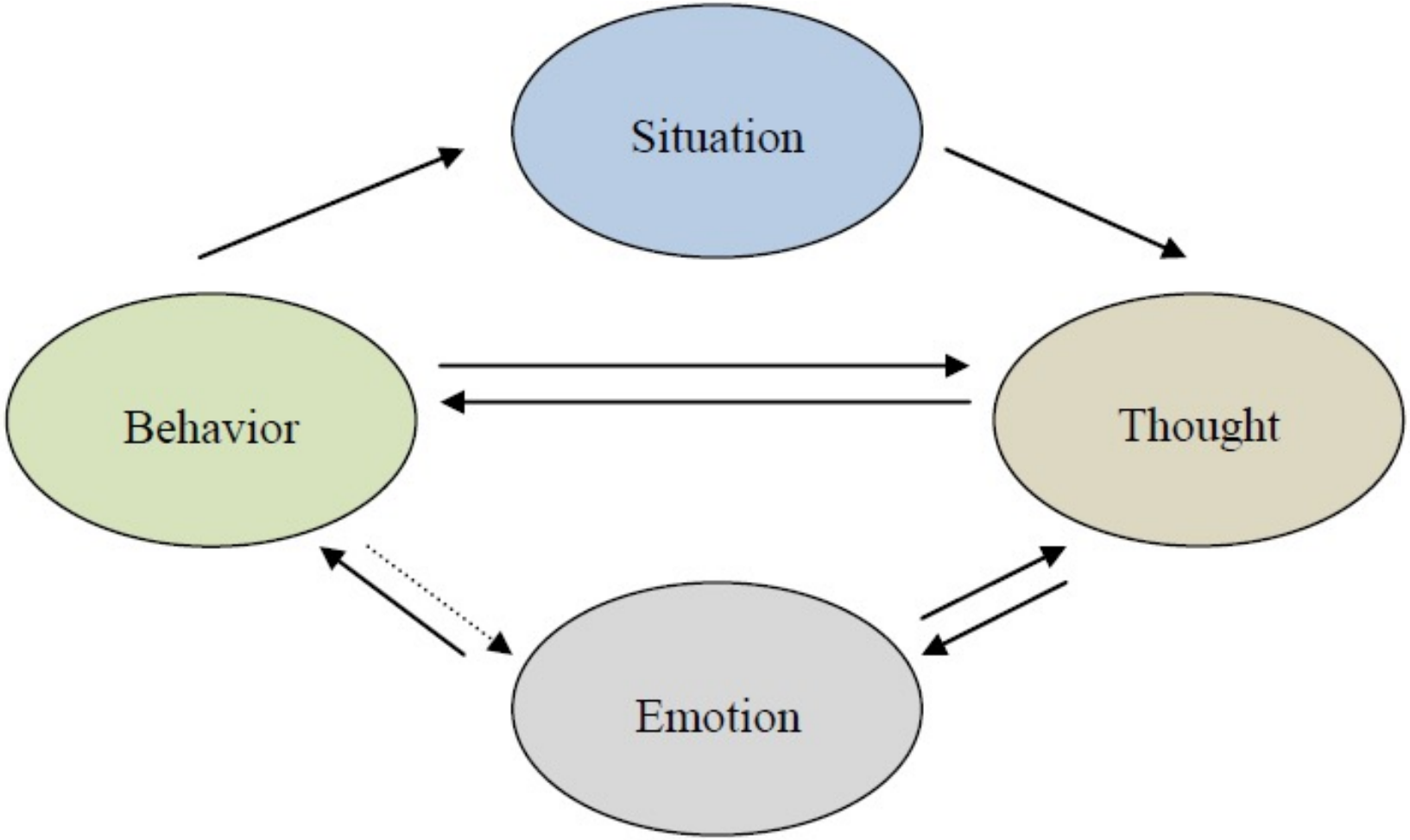
SESSION 6: Relapse Prevention & Lifestyle Modification

Rees. A brief cognitive-behavioral intervention for cannabis dependence: Therapist's treatment manual. National Drug & Alcohol Research Center. 1998. ndarc.med.unsw.edu.au/sites/default/files/ndarc/resources/TR.064.pdf.

Outline of CBT Intervention



General CBT Approach



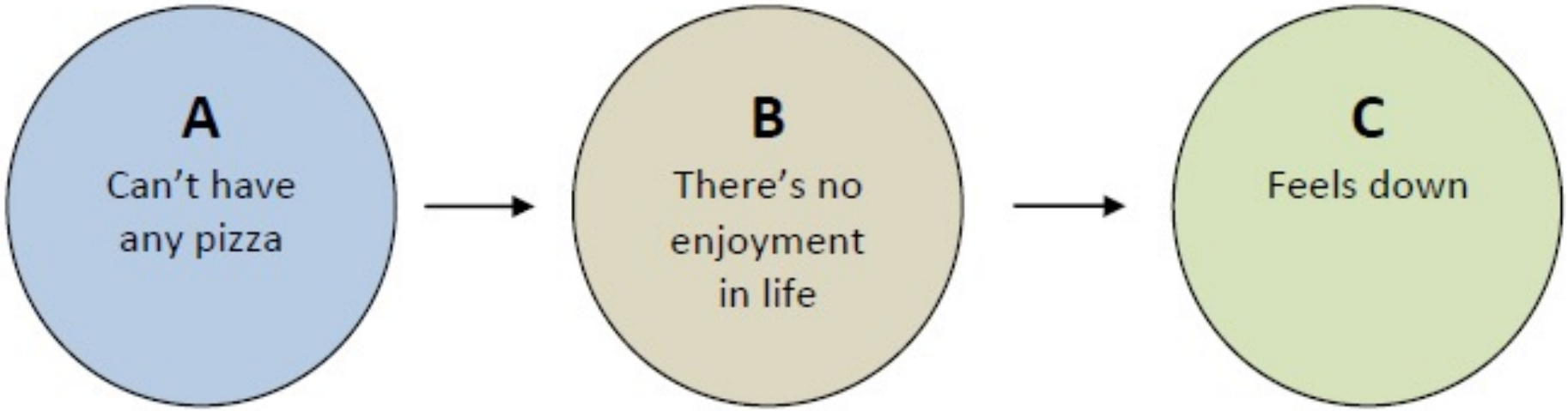
Behavioral Strategies

- Stress management
  - Change lifestyle habits
  - Change how to approach situations (assertiveness)
  - Change your thinking
- Anger management
- Sleep hygiene
  - Timing
  - Sleep behavior
  - Environment tips
  - Ingestion
  - Mental control

Relaxation Techniques

- Diaphragmatic breathing
- Progressive muscle relaxation
- Guided visual imagery
- Autogenic training

ABC Model


A
Can't have any pizza
B
There's no enjoyment in life
C
Feels down

Cognitive Strategies

COPING CARDS

Thought:
When people do nice things for me, they think that I'm not able to do things for myself. I hate when people pity me.

Coping Strategies:
- Remind myself that people are genuinely nice and that I have experienced many situations in which people do not pity me but are being genuine and chivalrous.
- Remember, just because I assume people are thinking a certain way does not really mean they are.

3 C'S APPROACH

Cognitive Restructuring

Help patients to:

(a) Identify unhelpful thoughts, beliefs, and images

(b) Distance themselves from unhelpful cognitions before they act upon them

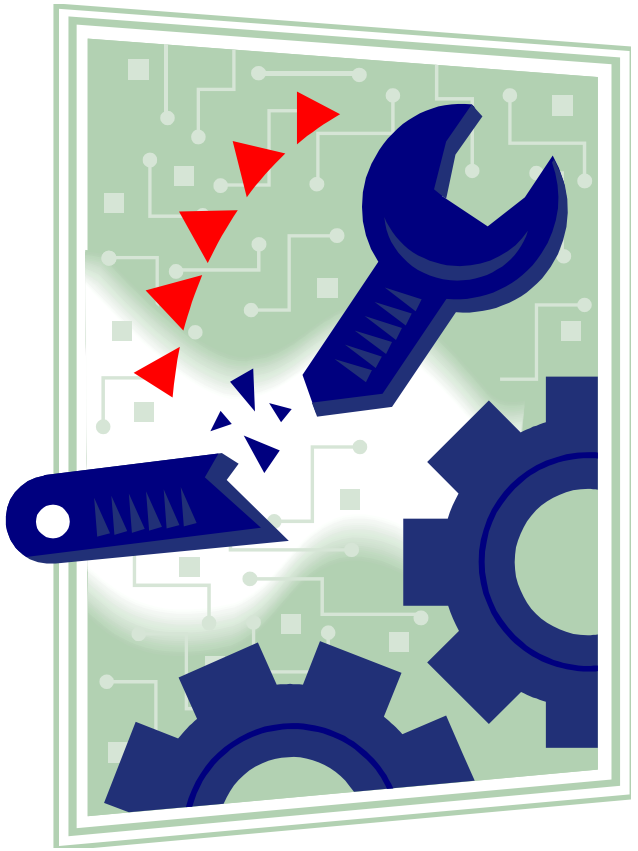
(c) Evaluate veracity of those cognitions

(d) Develop alternative cognitions that more realistically characterize situation at hand

- This process is called *cognitive restructuring*

Problem-Solving Strategy

1. Identify the problem
2. Think about possible solutions
3. Choose a solution to implement
4. How well does it work?



Evaluating Pros & Cons

PROS	CONS

Motivational Enhancement Therapy (MET)

- A counseling approach that helps patients resolve their ambivalence about engaging in treatment and stopping their drug use
- Aims to evoke rapid and internally motivated change, rather than guide patient stepwise through recovery process
- Two to four individual treatment sessions with a therapist
- Motivational interviewing principles are used to strengthen motivation and build a plan for change
- Seems to be more effective for engaging drug users in treatment than for producing changes in drug use

NIH . National Institute on Drug Use. Principles of Drug Addiction Treatment: A Research-Based Guide (Third Edition) Motivational Enhancement Therapy (Alcohol, Marijuana, Nicotine). 2018. www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-third-edition/evidence-based-approaches-to-drug-addiction-treatment/behavioral-therapies/motivational-enhancement-therapy.

Motivational Interviewing (MI)

- Another technique that may be used to improve communication for behavioral change
- Developed in early 1980s in treatment of addictive behaviors, such as opiate use
- A patient-centered, directive technique, MI aims to improve motivation and commitment of patients to achieve behavioral changes
- MI principles now applied to management of chronic conditions, such chronic pain
- It promotes patient's physical and psychological functions and maintains their compliance with exercise for coping with pain

Miller. *Motivational Interviewing: Preparing People to Change Addictive Behavior*. New York, NY: Guilford Press. 1991.
Jensen. *J Pain*. 2003;4(9):477-492.
Ang. *Clin Rheumatol*. 2007;26(11):1843-1849.
Habib. *J Pain*. 2005;6(1):48-54.
Vong. *Arch Phys Med Rehabil*. 2011;92(2):176-183.

Motivational Interviewing (MI)

- Approach aims to influences people in their initiation, intensity, and performance of a behavior, such as self-management skills for pain reduction
- This technique promotes physical and psychological function, and helps maintain compliance with exercise for coping with pain
- Shown to affect treatment outcomes such as in functional improvement and motivation to receive treatment

Geen. Introduction to the study of motivation. In: *Human Motivation: A Social Psychological Approach*. 1995.
Jensen. *J Pain*. 2003;4(9):477-492.
Vong. *Arch Phys Med Rehabil*. 2011;92(2):176-183.

What Makes It Motivational Interviewing?

1. Is a conversation about change
2. Has a particular purpose
3. Is collaborative
4. Honors autonomy and self-determination
5. Is evocative
6. Uses specific skills
7. Is goal-oriented
8. Attends to specific forms of speech
9. Responds to change-talk in specific ways
10. Responds to resistance

Readiness to Change

- Ambivalence is normal
- Change is nonlinear
- Readiness is not static
- Attend to readiness in work

www.mdgamblinghelp.org/family-and-friends/stages-of-change/.
calmerme.com/the-stages-of-change-strategies-for-consistent-life-long-behavior-changes/.

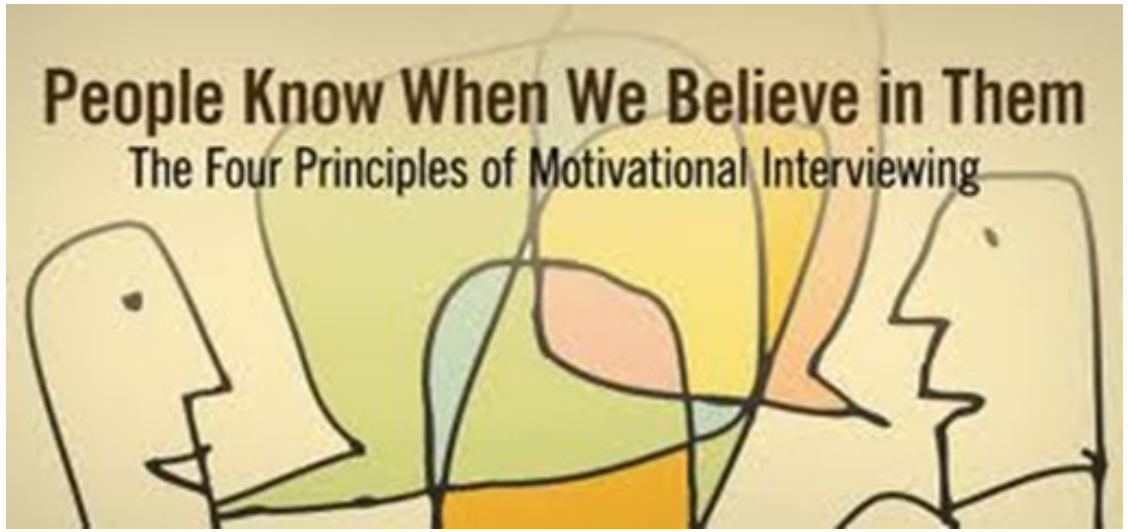
Elements of MI

- MI principles
- MI strategies: OARS
    - **O**pen-ended questions
    - **A**ffirmations
    - **R**eflective listening
    - **S**ummaries
- Eliciting change talk
- MI spirit

MI Principles

There are four main principles to use when applying MI:

1. Expressing accurate empathy
2. Developing discrepancy
3. Avoiding argumentation and rolling with resistance
4. Supporting self-efficacy



Jensen. Enhancing motivation to change in pain treatment. In: Turk et al, eds. *Psychological Approaches to Pain Management: A Practitioner's Handbook*. 2002:71-93.

OARS: Affirmations

- Affirmations are statements that recognize patient's strengths
- They assist in building rapport and in helping patient see themselves in a different, more positive light
- To be effective they must be congruent and genuine
- Use of affirmations can help patients feel that change is possible even when previous efforts have been unsuccessful
- Affirmations often involve reframing behaviors or concerns as evidence of positive patient qualities
- Affirmations are a key element in supporting self-efficacy

Sample Affirmations

Commenting positively on an attribute

- *"You are determined to get your health back."*

A statement of appreciation

- *"One can appreciate your efforts despite the discomfort you're in."*

A compliment

- *"Thank you for all your hard work today."*

Recognizing patient strengths and countering a defeatist attitude

- *"It's impressive that you have been trying to quit despite all the stress you are going through."*

Affirmation Pitfalls

- Focus on specific behaviors instead of attitudes, decisions, and goals
- Avoid using the word “I”
- Focus on descriptions and not evaluations
- Attend to nonproblem areas rather than problems
- Think of affirmations as attributing interesting qualities to patients
- Nurture a competent instead of a deficit worldview of patient

What Is Change Talk?

- Change talk is defined as statements by patient revealing consideration of, motivation for, or commitment to change
- In MI, provider seeks to guide patient to expressions of change talk as pathway to change
- Research shows that the more someone talks about change, the more likely they are to change
- There are different types of change talk

Recognizing & Reinforcing Change

Preparatory Language

- Desire to change
  - *"This is not the person I want to be."*
- Ability to change
  - *"I know what I have to do. I just need to do it."*
- Reasons for change
  - *"It would be nice if I didn't have to worry so much."*
- Need to change
  - *"I've got to make things better."*

Mobilizing Language

- Commitment
  - *"I will make (specific) changes."*
- Activation
  - *"I am prepared and willing to make changes."*
- Taking steps
  - *"I went to the store, bought some vegetables, cleaned and cut them up, and have them in my fridge for snacks."*

Eliciting & Strengthening Change

1. Ask evocative questions
   - An open-ended question, answer to which is likely to be change talk
2. Ask for elaboration
   - Ask for more details when change talk is present
3. Use extremes
   - What are worst/best things that might happen if they don't make this change?
4. Looking back
   - Ask about a time before target behavior emerged and how it's different now
5. Looking forward
   - Ask what may happen if things continue as they are
6. Exploring goals
   - Ask patient what they want in life. Ask how continuation of target behavior fits in with patient's goals.

Assessment/Feedback of Change

Readiness Rulers:

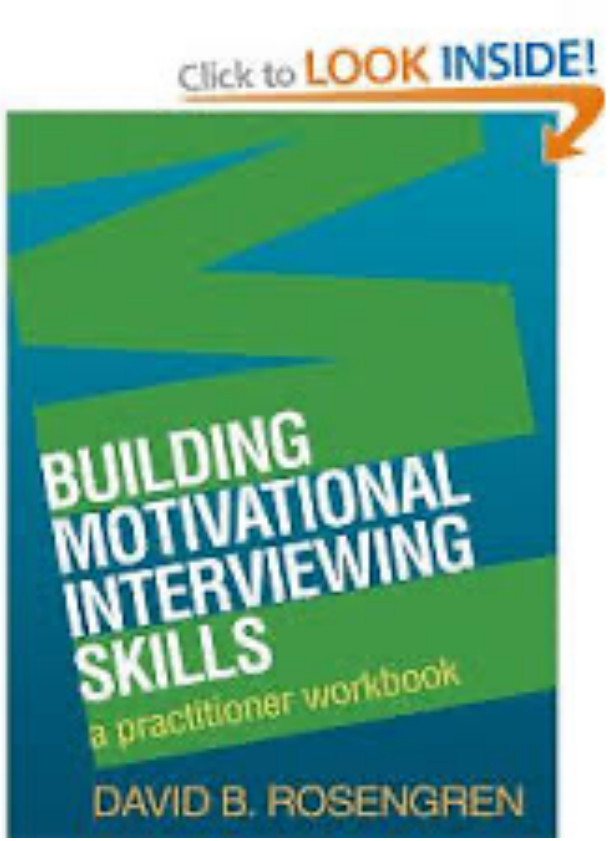
- “On a scale from 1 to 10, how important is it to you to change (specific behavior), where 1 is not important and 10 is very important?”
- “And why are you at ___ and not ___ (a lower #)?”
- “How confident are you that you could make the change if you decided to do it?”
- “And why are you at ___ and not ___ (a lower #)?”

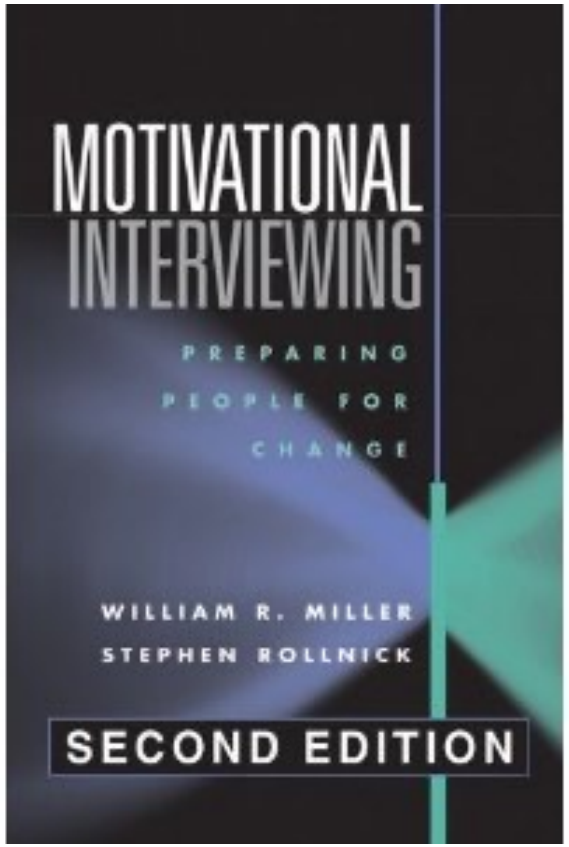
Key Question

What is next?

- “Given what you told me, what do you think you will do next?”
- “Where do you think you would like to go from here?”
- “What’s your next step?”

MI Resources





Contingency Management

- Involves giving patients tangible rewards to reinforce positive behaviors such as abstinence
- Past studies conducted in both methadone programs and psychosocial counseling treatment programs demonstrate that incentive-based interventions are highly effective in increasing treatment retention and promoting abstinence from drugs
- Voucher-based reinforcement
  - Patient receives a voucher for every drug-free urine sample provided
  - Voucher has monetary value that can be exchanged for food items, movie passes, or other goods or services that are consistent with a drug-free lifestyle
  - Voucher values are low at first but increase as number of consecutive drug-free urine samples increases
  - Positive urine samples reset value of vouchers to initial low value
  - Has been shown to be effective in promoting abstinence from opioids and cocaine in patients undergoing methadone detoxification

Contingency Management

Prize incentives

- Uses chances to win cash prizes instead of vouchers
- Participants supplying drug-negative urine draw from a bowl for chance to win a prize worth $1 to $100
- Participants may also receive draws for attending counseling sessions and completing weekly goal-related activities
- Number of draws starts at 1 and increases with consecutive negative drug tests and/or counseling sessions attended
- Resets to 1 with any drug-positive sample or unexcused absence
- Concerns that this intervention could promote gambling which can be comorbid with SUD: not research supported

Budney. *J Consult Clin Psychol*. 2006;74(2):307-316.

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Elkashef. *Subst Abus*. 2008;29(3):17-29.

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Prendergast. *Addiction*. 2006;101(11):1546-1560.

Roll. *Am J Psychiatry*. 2006;163(11):1993-1999.

No Access to Treatments

- Patients who are unable to access structured treatments may want to consider following:
  - Computerized CBT for CUD
  - Drug or addiction counseling
  - Mutual help groups (Marijuana Anonymous)
  - Potentially beneficial medications
    - N-acetylcysteine*
    - Gabapentin*
    - Nabiximols
    - Cannabidiol
    - Antidepressants
    - Synthetic THC

Budney. *Drug Alcohol Depend*. 2011;115(1-2):74-79.
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Less Structured Therapies

- Must Include:
  - Enhance motivation to reduce or end cannabis use
  - Improve social skills
  - Improve social support and interpersonal functioning
  - Manage painful feelings
  - Education about consequences of cannabis use

Relapse Rates

- Rates following treatment for substance use disorders (SUD) are comparable to those of other chronic illnesses such as diabetes, asthma, and hypertension
- More than 25 million individuals with a previous SUD are in remission and living healthy, productive lives
- Many patients seek or are referred to SUD treatment only after a crisis, such as OD, or through involvement with criminal justice system

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