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Brief Interventions for Marijuana

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Objectives

1. Review screening and brief intervention to prevent and reduce problematic use of alcohol and other drugs.
2. Review marijuana legislation and patterns of use in Colorado.
3. Review known risks of marijuana use in adolescents and adults.
4. Explore key points for effective brief interventions to prevent and reduce the harms of marijuana use in adolescents and adults.

What is screening and brief Intervention (SBI)?

Screening: Administering one or more validated screening questions to identify potential problematic use of alcohol or other drugs, followed by...

Brief intervention: One or more brief conversations to raise awareness of potential or current health risks associated with the use of alcohol or other drugs, and motivate the individual to change their pattern of use to prevent or minimize health and other problems. Brief interventions may also be used to encourage those with a possible substance use disorder to seek further evaluation and more intensive or specialized treatment.

Note: the definition above was adapted from SAMHSA, NIAAA, and USPSTF.

Screening and brief intervention (SBI) for marijuana

- Does it work? *An unanswered question*
 - Fewer trials of SBI for drugs than for alcohol
- USPSTF:
 - SBI for illicit drug use in adults: “I” grade (Insufficient evidence to make a recommendation)
 - SBI to reduce illicit drug use in children and adolescents: “I” grade
- Marijuana no longer fits into the categories “illegal” or “illicit” in many places.
- Anecdotal feedback from SBIRT implementation in Colorado suggests that marijuana is one of the most difficult substance to address in healthcare settings.

Colorado - USA



Marijuana in Colorado

- In 2000: voters approved medical marijuana
 - Implemented in 2001
- In 2012: voters approved recreational marijuana
 - Implemented in 2013



SBIRT Colorado Data Collection

- What % of patients screened in SBIRT healthcare settings are using marijuana?
 - 35.3% lifetime use (n=3529)
 - 14.7% past 90 days (n=1470)
 - 10.3% daily or weekly use
- Of those using marijuana, what % has a state-issued medical marijuana card? 308 (3.1%)
 - 8.6% of lifetime users have a card
 - 19.1% of past 90-day users have a card



Variance among past 90-day users

- Cardholders
 - 60.5% daily use
 - Average use: 19.21 days in past 30
- Non-Cardholders
 - 38.7% daily use
 - Average use: 12.91 days in past 30

**Cardholders used significantly more days
in past 30 than non-cardholders,
 $t(435.73)=7.92, p<.001$**

Risk level among past 90-day users

Cardholders

- Moderate risk: 90%
- Moderate-high to High risk: 3.2%
- Significantly more likely than Non-Cardholders to screen positive for marijuana ($\chi^2(1, N = 1470) = 38.64, p < .001$)

Non-Cardholders

- Moderate risk: 69.6%
- Moderate-high to High risk: 7.1%
- Significantly more likely than Cardholders to screen at Moderate-high to High risk ($\chi^2(1, N = 1470) = 5.91, p < .05$)

Co-occurrence with other substance use

- % of past-90 day marijuana users who screened positive for:
 - Alcohol 43.1%
 - Tobacco 71.9%
 - Stimulants 6.8%
 - Cocaine 7.7%
 - Opioids 5.6%
- **Non-cardholders** were significantly more likely than Cardholders to screen positive for:
 - Alcohol (45.9% vs. 31.7%, $c^2(1, N = 1470) = 18.81, p < .001$)
 - Tobacco (75.9% vs. 54.8%, $c^2(1, N = 1470) = 49.82, p < .001$)
 - Stimulants (7.6% vs. 3.6%, $c^2(1, N = 1470) = 5.77, p < .05$)



Conclusions from SBIRT Colorado data

- Medical marijuana cardholders were more likely to be *at risk*, specifically moderate risk, likely due to **frequency** of use.
- Non-cardholders were more likely to screen at *higher risk* for **marijuana** and to screen positive for other substances.



Screening

“In the past year how many times have you used marijuana?”

Any report of more than 1 time is a ‘positive’ brief screen.

CBS News, May 2013: Laxer marijuana laws linked to increase in kids' accidental poisonings:

Kids who ate the edible pot products showed symptoms like extreme sleepiness, respiratory distress and difficulty walking. The children recovered within a couple days.

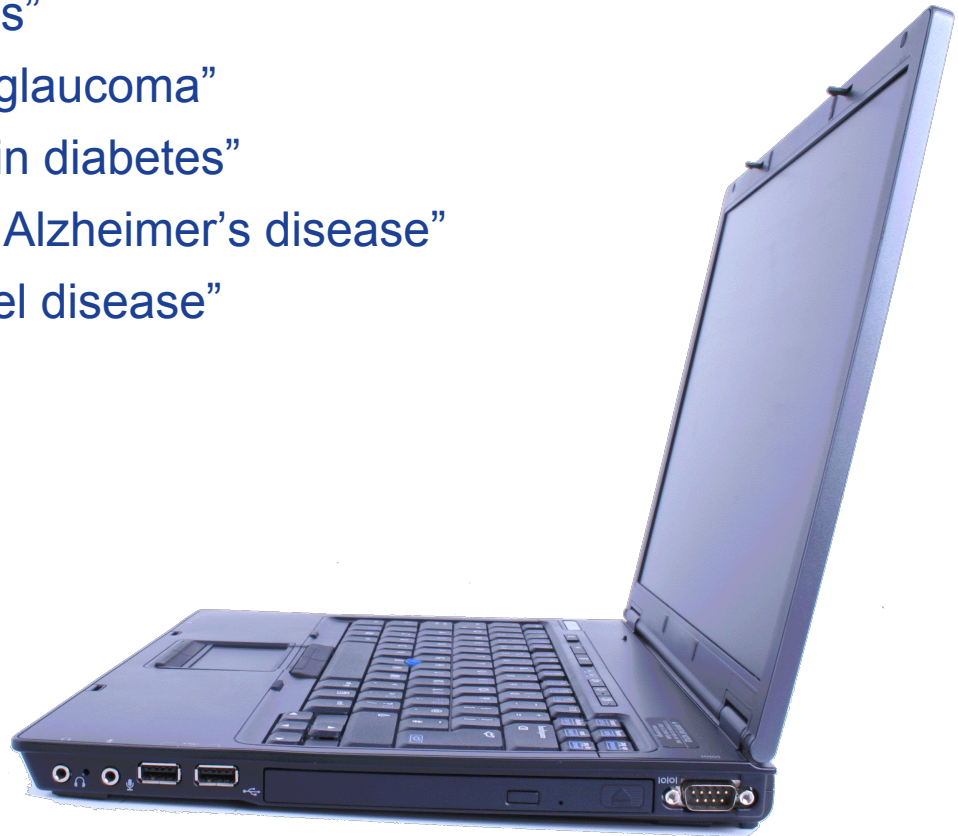
KCNC-TV October 2012: The popularity of medical marijuana in Colorado has had an unexpected side effect: Dogs getting stoned, sometimes with deadly results.

Cost of marijuana

- Not based on an exhaustive review ... but according to several individuals who use marijuana:
 - 1 ounce supply of medical marijuana costs ~ \$180. Used once per day this supply would last approximately two weeks.
 - Edible marijuana: ~\$10/each.
 - Nonmedical marijuana: cost for 1 ounce could exceed \$200

Internet search: 'Benefits' of marijuana

- “Stops cancer from spreading”
- “Controls epileptic seizures”
- “Prevents blindness from glaucoma”
- “Decreases insulin levels in diabetes”
- “Slows the progression of Alzheimer’s disease”
- “Treats inflammatory bowel disease”
- “Treats depression”



www.philly.com/10_health_benefits_of_marijuana

Who gives health advice about marijuana?

- Some healthcare institutions discourage practitioners from advising patients about medical marijuana use.
- Some medical marijuana dealers readily offer “medical” advice

Someone needs to provide accurate unbiased information to patients about marijuana!

What we hear about marijuana...

- “It’s legal- what’s the big deal?”
- “It’s all natural.”
- “No one ever overdoses on marijuana.”
- “It’s safer for my lungs than cigarettes.”



- “It’s safer than narcotics for pain.”
- “It treats many serious health problems.”
- “It improves my sleep and anxiety, and helps me handle stress.”
- “It makes me a safer driver...I drive slower.”
- “It’s not harmful.”

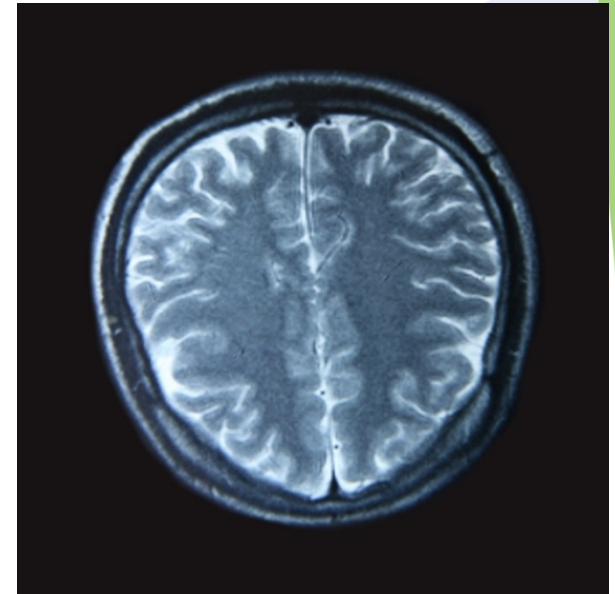
Brief intervention: Priorities

- Prevent use in adolescents: target parents and youth.
- Encourage reduction in use or abstinence (for some).
- Promote harm reduction in those unwilling to abstain or cut back.
- Identify individuals with possible cannabis use disorder.
- Motivate individuals with possible cannabis use disorder to seek further evaluation and treatment if indicated.
- Offer recovery support services.



Prevention: Adolescents

- Prevent diversion to youth
 - Effects of legalization on patterns of use in youth are not fully understood at this time.
- De-normalize use in adolescents and young adults.
- Address the rationale that marijuana use is preferable to alcohol
- Educate parents and youth:
 - Brain development
 - Risk of long-term problems with learning and memory
 - Depression
 - Increased risk of psychosis
 - Cannabinoid Hyperemesis Syndrome
 - Diminished motor coordination
 - Impaired driving
 - Marijuana use *may* be associated with other substance use



Key points for conversations with parents

- De-normalize all adolescent substance use.
- Be nonjudgmental and take advantage of opportune moments to talk.
- Create safety and opportunities for the adolescent to disclose use and exposure to others using.
- Respond honestly to questions about past parental use but focus the conversation on the young person's life and health now.
- Communicate a “no-use” expectation.
- Provide information about the particular vulnerability of harm to the developing brain during adolescence through young adulthood.
- Promote family, school and neighborhood engagement.
- Be alert for signs of deteriorating relationships and school performance, and behavior changes or problems.
- Monitor for signs of access to drugs and use.

Prevention: Pregnancy and lactation

- THC crosses the placenta and is a form of exposure
- THC is present in breast milk and a form of exposure.
- Marijuana use may increase the risk of miscarriage.
- Prenatal exposure is associated with long-term motor, mental health and neurobehavioral problems (including problems with learning and attention).
- Prenatal or exposure while breast-feeding may cause irritability and poor sleep in the infant.

Health concerns: Adults

- Cardiac: Temporarily increases heart rate and blood pressure. Increased risk of cardiac arrest and stroke.
- Lungs: chronic bronchitis, repeat URIs, pneumonia
- Decreased immune system function
- Decreased fertility
- Especially avoid or reduce marijuana use if:
 - Scheduled for surgery in the next two weeks
 - Have current or past history of a mental health diagnosis
 - Taking certain medications

Medication interactions

- Major:
 - Barbiturates (marijuana may potentiate)
 - CNS depressants (marijuana may potentiate)
 - Theophylline (marijuana may attenuate)
- Other possible interactions:
 - Fluoxetine (interaction may lead to hypomania)
 - Warfarin (marijuana may potentiate)



Safety concerns

- Potency
- Contaminants
- Accidental ingestion by children and pets
 - Safeguard supplies
 - Safe disposal
- Driving under the influence
- Exposure prior to surgery



Brief intervention key points

- Find out what a person knows and believes about marijuana. *Open-ended questions. Reflective listening.*
- Provide information about health and safety risks. *Offer information and feedback with permission.*
- Express concern about potency and dosing. *Offer information with permission.*
- Express concern about self-medicating to treat serious health conditions. *Offer advice with permission.*



More brief intervention key points

- Explore the relationship between marijuana and other substance use. *Enhance motivation. Promote insight and self-understanding.*
- Explore underlying stress, depression, anxiety. *Reflective listening to promote insight and explore options.*
- Explore other possible reasons to change marijuana use (e.g., cost, how it affects relationships, being a role model for children). *Enhance motivation.*

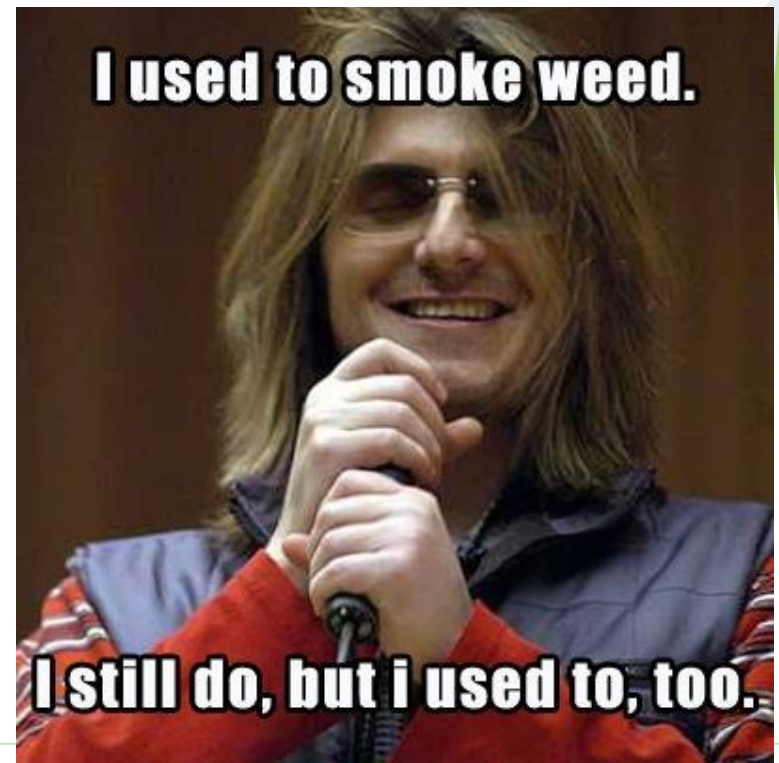


Responding to common beliefs about marijuana

- “It’s legal, so what’s the big deal?” or “It’s safer than alcohol or tobacco.”
 - *“Similar to other legal substances, marijuana carries some risks.”*
- “Marijuana is all natural.”
 - *“Marijuana may also contain harmful contaminants. Many all-natural substances are known to harm human health.”*
- “It treats serious health conditions and works better than prescriptions.”
 - *“It is important that serious medical conditions be managed by a qualified healthcare provider; self-treatment could cause harm...”*
- “No ever died from an overdose of marijuana.”
 - *“ED visits in Colorado are increasing due marijuana intoxication...”*
- “It’s not addictive.”
 - *“Marijuana can be addictive.”*
- “It helps with stress and anxiety.”
 - *“It is important to identify and address underlying causes of stress and anxiety for long-term health and well-being.”*
- “It’s OK to drive after smoking pot.”
 - *“Marijuana increases the risk of accidents by 2-3 times.”*

Benefits of cessation (or decreased use)

- Improved mental clarity
- Improved motivation
- Money saved
- Protect brain, heart, lungs, and other organs
- Decreased chance of fertility problems
- Healthier pregnancy
- Safer breastfeeding
- Being a good role model for children



Key points about brief interventions in youth

- Give strong clear advice to abstain.
- Address harm reduction when unwilling to abstain.
- Always be an advocate for the young person.
- Ideally involve parents and caring adults.
 - Only disclose with consent from the adolescent.
 - Some adolescents may be looking for help to approach their parents.
- Keep the door open for further conversation.
- Know your state laws regarding self-referral for treatment.
- Motivational interviewing is well-suited to adolescents:
 - Respects autonomy
 - Non-confrontational approach to responding to resistance
 - Promotes insight, self-understanding, and self-efficacy (could help equip a young person for future life challenges)
 - Collaborative approach to problem-solving and change

Brief negotiated interview: Steps 1 and 2

1. Raise the subject.
 - Ask permission to have the conversation and offer feedback.
2. Provide feedback
 - Review current patterns of use.
 - Express concern about quantity and/or frequency of use.
 - Connect marijuana use to personal or family well-being and goals.
 - Elicit the person's response to the information.

Brief negotiated interview: Steps 3 and 4

3. Enhance motivation

- Ask about pros and cons of use.
- Assess importance and or readiness to change. [0-10 ruler]
- Develop discrepancy between the behavior and current health or life issues.

4. Negotiate and advise

- Discuss and negotiate a goal or plan.
- Offer suggestions about possible ways to achieve the goal.
- Assess confidence. [0-10 Ruler]
- Address barriers and challenges.
- Summarize next steps.

Sample brief intervention

Cannabis use disorder

- Clinically significant impairment or distress. 2 or more of the following:
 1. Using more than intended
 2. Persist desire to use or unsuccessful efforts to cut down
 3. Spending considerable time acquiring marijuana
 4. Cravings or strong desire to use
 5. Failure to fulfill major obligations or roles
 6. Continued use despite awareness of problems related to use
 7. Giving up other activities for marijuana
 8. Using in hazardous situations
 9. Continued use despite awareness of physical or psychological problems
 10. Tolerance
 11. Withdrawal
- See DSM 5 for complete and slightly revised criteria for substance use disorder (as compared with DSM-IV)

DRAFT

Goals:

- Promote SBIRT screening that detects any marijuana use in adolescents and adults
- Offer effective brief interventions to prevent use and reduce harm among users

Other Resources (all available at healthteamworks.org):

- SBIRT Guideline
- Adult and adolescent screening tools
- Information on brief interventions and motivational interviewing
- DSM V diagnostic criteria

Things to Consider

- Users who begin in adolescence have a 1 in 6 chance of developing dependence¹
- Potential increased risk in pregnant women, people taking certain medications, and people with certain health conditions

SBIRT For Marijuana Use

- Begin routine screening for marijuana use in all patients by age 12.
- Screen for any use of marijuana. Recommended question:
"In the past year, how many times have you used marijuana?"
Positive score = > 1 time
- Assess for risky behaviors related to use
- Assess for cannabis use disorder (mild, moderate, severe)
- Offer brief intervention

Background

- In Colorado:
 - Effective June 1, 2001: medical cannabis use was permitted.
 - Effective 2013: recreational cannabis (1 oz. or less) was legal to possess and consume in private residences for individuals ages 21 and older.
- Marijuana is the third most commonly used substance after tobacco and alcohol in the U.S., Australia and Europe
- Psychological/emotional dependence may suggest other issues that need to be addressed.

Strains

1. *Cannabis indica*
 - Larger amounts of Cannabidiol (CBD)
 - Known for relaxation, commonly used to relieve inflammation, and glaucoma.²
2. *Cannabis sativa*
 - Larger amounts of Tetrahydrocannabinol (THC)
 - Known to be more energizing; can reduce headaches, pain and nausea and stimulate appetite.²
3. Cannabidiol (CBD) by itself, lacks noticeable psychoactive effects²

Per the Colorado constitution, medical marijuana may be recommended for the following:

- Cancer
- Glaucoma
- HIV or AIDS positive

OR ..

The patient has a chronic or debilitating disease or medical condition that produces one or more of the following and which, in the physician's professional opinion, may be alleviated by the medical use of marijuana.

- Cachexia
- Persistent muscle spasms
- Seizures
- Severe nausea
- Severe pain

[Click here for updated CDPHE information](#)

Discussion with Parents about Children Using Marijuana

Risk Factors:³

- Early aggressive behavior
- Lack of parental supervision
- Substance abuse
- Drug availability
- Poverty

Protective Factors:³

- Impulse control
- Parental monitoring
- Academic competence
- Antidrug use policies
- Strong neighborhood attachment

Things parents should consider:³

- Be nonjudgmental; encourage openness and offer opportunities for young person to disclose marijuana experimentation or use.
- Communicate a "no-use" expectation.
- Take advantage of everyday "teachable moments."
- Share stories of people in recovery.
- Use convenient blocks of time to talk (on the way to school, after dinner, etc.)
- Talk about a recent drug- or alcohol-related incident in your neighborhood/community.

Preconception/Pregnancy/ Postpartum Key Points

- THC crosses the placental barrier and accumulates in fetal tissue.
- Increases risk of anencephaly, interferes with immune system development
- Increased risk of miscarriage
- Use while breastfeeding can cause irritability in infant, and is considered a form of exposure.

Effects of Prenatal Exposure to Marijuana

Infants	<ul style="list-style-type: none">• Visual behavior disturbances• Poor sleep• Mental, motor and neurobehavioral deficiencies• Aggressive behavior• Attention problems• Poor sleep
Children (Ages 1-10)	<ul style="list-style-type: none">• Lower scores in verbal and memory domains• Lower intelligence test scores• Social behavioral disorders• Decrease in learning abilities• Decrease in academic achievement• Neuropsychological problems• ADHD• Depressive symptoms• Poor sleep
Adolescents	<ul style="list-style-type: none">• Increase in conduct problems and delinquent behavior• Deficits in attention

Effects in Adolescents Who Use Marijuana

- Problems with learning and memory
- Distorted perception (sights, sounds, time, touch)
- Increased heart rate
- Diminished motor coordination
- Increased risk of psychosis
- Risk of long-term neurocognitive deficits and reduced IQ

Thank you very much!

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