Addressing Marijuana Use with Adolescents

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Workshop Description:

The training will focus on sharing with prevention providers information on marijuana and its impact on adolescents with a focus on content that can be shared with adolescents and their family. Topic areas will include: the impact of marijuana on the brain, the current trends in marijuana use among adolescents, medical marijuana, and applying motivational interview strategies when addressing marijuana use with adolescents.

Learning Objectives:

- 1. Gain a solid understanding of the ways marijuana impacts the adolescent brain
- 2. Learn about current issues in marijuana use that impact adolescents
- 3. Learn and practice applying motivational interviewing with preventing adolescents from risky marijuana use



Workshop Overview

- Marijuana and the Adolescent Brain
- Current Prevalence and Trends
- Medical Marijuana
- Working with youth
 - Screening
 - Brief Intervention
 - Motivational Interviewing





1. Who has taken the 2018 *Rhode Island Prevention Resource Center* elearning course:

Marijuana and the Adolescent Brain?

2. Of those who have taken this course or other similar courses, who much do you recall?

(1) Not much (2) A little 3) A lot



Prevalence of Adolescent Substance Use in the US



Monitoring the Future Results

- Annual survey of 8th, 10th, and 12th graders
- Conducted by researchers at the Institute for Social Researcher at the University of Michigan, Ann Arbor (NIDA funded)
- Since 1975, the survey has measured how teens report their drug, alcohol and cigarette use and related attitudes in 12th grade
- 8th and 10th grade was added in 1991
- 42,531 students from 396 public and private schools participated in 2019 survey



TEEN VAPING CLIMBS SIGNIFICANTLY*

*Both Nicotine and Marijuana (THC)



 Miech R, Johnston L, O'Malley PM, Bachman JG, Patrick ME. Trends in adolescent vaping, 2017–2019. N Engl J Med 2019; 381:1490-1491

2019 Past Month Nicotine Vaping Equates to:

1 IN 4 – 12TH GRADERS • 1 IN 5 – 10TH GRADERS • 1 IN 10 – 8TH GRADERS

TEEN VAPING CLIMBS SIGNIFICANTLY*



*2018 – 2019 INCREASE IS THE SECOND LARGEST ONE-YEAR JUMP EVER TRACKED FOR ANY SUBSTANCE IN THE 45-YEAR SURVEY HISTORY (NICOTINE VAPING WAS THE LARGEST FROM 2017 – 2018)



TEEN VAPING CLIMBS SIGNIFICANTLY*

TEENS REPORT REASONS FOR VAPING



To view information on other drugs from the 2019 Survey visit:

www.drugabuse.gov/related-topics/trends-statistics/infographics/monitoring-future-2019-survey-results-overall-findings

Reasons for Vaping, 12th Graders



TEENS MORE LIKELY TO USE MARIJUANA THAN CIGARETTES

Daily use among 12th graders



Percent of 12th Graders Reporting Past Month Use of Selected Tobacco Products





ALCOHOL USE CONTINUES ITS DECLINE

PAST YEAR ALCOHOL USE

Significant long-term decrease in all grades

BINGE DRINKING*

Significant long-term decrease in all grades



ILLICIT DRUG USE

ILLICIT DRUG USE STEADY Past year use among 12th graders

80% 70% 60% 50% Any 40% illicit drug 38.0% 30% Any illicit drug NOT including 20% marijuana 10% 11.5% 1991 1997 2018 2019

PAST YEAR ILLICIT DRUG USE

Past year use among 12th graders





DRUGABUSE.GOV

PRESCRIPTION DRUG MISUSE CONTINUES DECLINE FROM PEAK YEARS



OXYCONTIN[®]





8th graders 10th graders 12th



ADDERALL® MISUSE SEES SIGNIFICANT CHANGES IN PAST 5 YEARS

a decrease in 10th and 12th grades, but an increase in 8th grade



SHARE STUNICANCE

TOBACCO AND NICOTINE: VAPING THREATENS PROGRESS



TO VIEW MORE RESULTS ON VAPING VISIT:

https://www.drugabuse.gov/related-topics/trends-statistics/infographics/monitoring-future-2019-survey-results-vaping

ALCOHOL USE CONTINUES ITS DECLINE

10th

graders

graders

graders

PAST YEAR ALCOHOL USE

Significant long-term decrease in all grades

80% 80% 70% 70% 60% 60% 52.1% 50% 50% 37.7% 40% 40% 30% 30% 19.3% 20% 20% 10% 10% 2009 2019 2014 8th 12th

BINGE DRINKING*

Significant long-term decrease in all grades



*5 or more drinks in a row in the past two weeks





2019 Monitoring the Future Survey Key Findings: Percent Reporting Use of Selected Substances

	8 th Grade	10 th Grade	12 th Grade		8 th Grade	10 th Grade	12 th Grade
Vaping, Any				Tobacco w/Hookah			
Past Year	20.1	35.7	40.6	Past Year			5.6
Past Month	12.2	25.0	30.9	Past Month	1.3	2.4	4.0
Vaping, Nicotine				Flavored Little Cigars			
Past Year	16.5	30.7	35.3	Past Month	2.2	3.7	7.7
Past Month	9.6	19.9	25.5	Narcotics Other than Heroin			
Vaping, Marijuana				Past Year			2.7
Past Year	7.0	19.4	20.8	Past Month			1.0
Past Month	3.9	12.6	14.0	Marijuana			
Vaping, Just Flavoring				Past Year	11.8	28.8	35.7
Past Year	14.7	20.8	20.3	Past Month	6.6	18.4	22.3
Past Month	7.7	10.5	10.7	Daily	1.3	4.8	6.4
Cigarettes				Alcohol			
Past Month	2.3	3.4	5.7	Past Month	7.9	18.4	29.3
Daily	0.8	1.3	2.4	Daily	0.2	0.6	1.7
½ Pack +/Day	0.2	0.5	0.9	Binge	3.8	8.5	14.4

Change from 2018 to 2019

Significant Decrease

The Adolescent Brain and Substance Use







1. The brains of teenagers are:

- a) larger than those of adults
- b) the same as adult brains
- c) not yet fully developed
- d) made up of different parts than those of adults

2. The limbic system of the brain is involved mainly with:

- a) decision making
- b) emotions
- c) problem solving
- d) balance

3. The last part of the brain to fully develop is:

- a) the emotion center
- b) the part of the brain that controls automatic behavior like breathing
- c) the reward center
- d) the part of the brain involved in critical thinking



4. Teen brains are less sensitive to the effects of drugs than those of adults.

- a) True
- b) False

5. Which of the following statements is NOT true about the brain's prefrontal cortex?

- a) It helps people to weigh the risks of actions.
- b) It develops fully during childhood.
- c) It is used when adults need to make decisions.
- d) It can be damaged by drug use.

6. Drug use can cause changes to the brain.

- a) True
- b) False



7. Dopamine is:

- a) a natural chemical in the brain linked to pleasurable feelings
- b) a chemical found in drugs that affect the brain
- c) the region of the brain involved in emotions
- d) a natural chemical in the brain that decrease risk-taking

8. The number of connections between neurons in your brain can be affected by drug use.

- a) True
- b) False



What do you know about the Limbic System?

What is the importance of the limbic system in the teen brain?

What are the ways the limbic system can make teens more vulnerable to drugs?



What permanent impact can drugs have on the brain?

Explain why a person's actions during their teen years can have a permanent impact on their life– based on brain development.



Brain Growth in Childhood

- Throughout the first 3 years of childhood, the brain undergoes rapid growth:
 - Rapid development of the limbic system and cortical neurons
 - Increase in the number of connections between neurons (synaptic blossoming)
 - The increase in brain weight is complete by age 10-12 years



Brain Weight by Age



Source: Dekaban, A.S. and Sadowsky, D. Annals of Neurology, 4:345-356, 1978





Immature Brain

Synaptic Density







Blossoming

Synaptic Density









Synaptic Pruning







Myelination



Source: Allyn, Bacon, 2001. http://www.studyblue.com/notes/note/n/nervous-synapses--signaling-chpt-4849/deck/6399759





Brain Maturation



Source: Gogtay et al. PNAS. 2004:101(21):8174-8179.







Slide adapted from Ken Winters, PhD.





Brain Regions and their Functions


How do drugs work in the brain?

- Drugs interfere with the way neurons send, receive, and process signals via neurotransmitters.
 - Marijuana & heroin activate neurons because their chemical structure mimics that of a natural neurotransmitter in the body
 - Amphetamine & cocaine cause the neurons to release abnormally large amounts of natural neurotransmitters



What Parts of the Brain Are Affected by Drug Use?





Source: Facing Addiction in America The Suggeon General's Report on Alcohol, Drugs, and Health What Parts of the Brain Are Affected by Drug Use? The Reward Pathway



Brain Maturation

Nucleus Accumbens

(Highly active in adolescence)

- Pleasure Center
- Actives during pleasurable activities, including feeding, sex, and drug use
- Plays a major role in addiction

Prefrontal Cortex

(Matures late in adolescence or early adulthood)

- Impulse control
- Decision making
- Organizing and planning
- Abstract thought, rational thinking
- Attention, focus
- Working memory



Neurotransmission



Dopamine, a neurotransmitter works in the pleasure center in the middle of your brain

Once you've had a "feel good" experience, your brain builds new paths or a shortcut





Critical Period

- Is a "window" in brain development when a part of the brain:
 - Develops rapidly
 - Is highly sensitive to being shaped by environmental experiences
- How the brain is used during adolescence, and what it is exposed to, will have life-long effects
- Due to the stage of brain development in adolescence, teens are more susceptible to the addictive effects of substance use



Age at First Use and Later Risk

Alcohol

Marijuana



Source: Hingson RW, Heeren T, Winter MR. Age at drinking onset and alcohol dependence. Arch Pediatr Adolesc Med. 2006;160:739-746.







Marijuana and the Adolescent Brain



The Reward Circuit

How the Brain Responds to Marijuana

https://www.youtube.com/watch?v=s27f7Jzy2k0



Delta-9-tetrahydrocannabinol (THC)

- Primary psychoactive ingredient in marijuana
- Fat-soluble; crosses the blood-brain barrier and the placenta
- Accumulates in adipose tissue resulting in long elimination half-life (several days to 1 week)
- Acts on the body's endogenous cannabinoid receptors, present in the central and peripheral nervous system

Anandamide



THC









The Endocannabinoid System

Brain cells (neurons) communicate with each other by sending chemical messages. The chemicals (neurotransmitters) cross a gap between neighboring neurons before attaching to their specific receptors.

Presynaptic:

The neuron sending a message by releasing a chemical when signaled to do so

Postsynaptic: The

neuron receiving the message when its receptors are activated by specific chemicals (neurotransmitters)

Neurotransmitters: The chemical messengers that travel from one brain cell to another

Receptors: Activated by neurotransmitters, receptors trigger a set of events that allows a message to be passed along to other neurons

THC Cannabinoid Receptor Presynaptic (sending neuron) is unot cut mitters Cannabinoids 0 0 Lipid Precursors (fat cells) Postsynaptic (receiving neuron)

> Cannabinoids: Natural chemicals (anandamide and 2-AG) that bind to cannabinoid receptors in the brain and the body

THC: The main active ingredient in marijuana; THC, also a cannabinoid, interferes with the normal functioning of the endocannabinoid system



Endocannabinoid System Functions

- The neuron's "volume control" system: <u>dials down</u> neuron activity when too strong
- Regulates neurotransmitters affecting pleasure, mood, pain, appetite, motivation, memory (e.g., dopamine, glutamate, endorphins, serotonin)
- Helps keep neuron activity in balance, not underactive or over activate





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Endocannabinoid System cont'd.

- Shapes brain development
 - Guides neurons to grow to the right places in the brain for correct function
 - Controls neuron activity, thereby shaping brain wiring and pruning
 - Supports myelin growth on neurons



THC vs. Anandamide

- Both <u>dial down</u> neuron activity to change neurotransmitter release
- **THC** has a MUCH STRONGER, LONGER effect than anandamide on brain cells
 - -Sledge hammer versus scalpel analogy
- **THC** interferes with cell function and growth





Effect on Memory

- THC reduces hippocampal neuron activation
- With chronic THC exposure, neurons are gradually lost due to continual suppression
- THC users have <u>smaller</u> hippocampuses, and poorer memory

Source: Iversen L. How cannabis works in the brain. In *Marijuana and Madness*. Ed. Castle & Murray, 2004. Oxford University Press.





Source of THC in marijuana has increased over time



Source: Malone DT et al. Adolescent cannabis use and psychosis: epidemiology and neurodevelopmental models. Brit J Pharmacol. 2010;160:511-522



Persistent cannabis users show neuropsychological decline from childhood to midlife

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Source: Meier et al. Proceedings of the National Academy of Sciences. 2012. Available at: www.pnas.org/cgi/doi/10.1073/pnas.1206820109



SANG

The Dunedin Study N=1,037



Source: Meier et al. PNAS, 2012





Healthy individual

Patient with Schizophrenia

Daily marijuana user



Source: Arnone D, Barrick TR, Chengappa S et al. Corpus callosum damage in heavy marijuana use: Preliminary evidence from diffusion tensor tractography and tract-based spatial statistics. NeuroImage, 2008; 41:1067-1074



Marijuana Use in Adolescence also Increases Mental Illness in Adulthood

Regular marijuana use during adolescence found to increase risk 2 to 5 times of developing psychosis, schizophrenia, anxiety, and depression in adulthood.



Anxiety Disorders

- Adolescents who used cannabis daily were 2.5 times more likely to have anxiety disorder controlling for SES, alcohol, and other substance use and depression
- Heavy cannabis users during adolescence had increased rates of anxiety disorders at age 29 even if they quick in young adults



Cannabis use and risk of psychotic or affective mental health to outcomes: a systematic review

Theresa HM Moore, Stanley Zammit, Anne Lingford-Hughes, Thomas RE Barnes, Peter B Jones, Margaret Burke, Gyn Lewis

Summary

Background Whether cannabis can cause psychotic or affective symptoms that persist beyond transient intoxication is unclear. We systematically reviewed the evidence pertaining to cannabis use and occurrence of psychotic or affective mental health outcomes.

Methods We searched Medline, Embase, CINAHL, PsycINFO, ISI Web of Knowledge, ISI Proceedings, ZETOC, BIOSIS, LILACS, and MEDCARIB from their inception to September, 2006, searched reference lists of studies selected for inclusion, and contacted experts. Studies were included if longitudinal and population based. 35 studies from 4804 references were included. Data extraction and quality assessment were done independently and in duplicate.

The evidence is consistent with the view that cannabis increases risk of psychotic outcomes independently of confounding and transient intoxication effects

Lancet 2007: 370: 319-28 See Editorial page 292 See Comment page 293 Academic Unit of Psychiatry (THM MooreMSc. SZammit PhD. A Lingford-Hughes PhD, G Lewis PhD) and Department of Social Medicine (M BurkeMSc), University of Bristol, Bristol, UK; Department of Psychological Medicine, Cardiff University, Cardiff, UK (SZammit); Department of Psychological Medicine, Imperial College, London, UK (TREBarnes DSc); and Department of Psychiatry, Cambridge University, Cambridge, UK (P B Jones PhD) Correspondence to:

Dr Stanley Zammit, Department of Psychological Medicine, Cardiff University, Cardiff CF14, 4XN, UK zammits@cardiff.ac.uk



Risk Factors

- Genetic
- Environmental
 - *Availability*
 - Delinquent Behavior
 - Chaotic Home
 - Low socio-economic status
 - Other psychopathology
 - Low perceived risk of harm
 - Peer/Family Use
 - Use of other substances



Earlier initiation _____risk of CUD





Can Marijuana be Used as Medicine?



Medical Marijuana and Legalization

- Controversial
- Legality affects teens' perception of risk
- Suggestion of evidence for targeted compounds





Can Marijuana be Used as Medicine?

- Although the medical use of marijuana is legal in many states, the U.S. Food and Drug Administration (FDA) has not determined that the marijuana plant is safe and effective for treating any disease or condition and has not approved it as a medicine.
- Although the marijuana plant has not been approved as medicine, the FDA has approved formulations of two of the components of marijuana—THC and CBD—as medicine for specific conditions.
 - THC, which stands for delta-9-tetrahydrocannabinol, is responsible for marijuana's "high", the euphoric and addictive effects of the drug.
 - CBD, or cannabidiol, does not produce a high and has not been shown to lead to addiction.



Can Marijuana be Used as Medicine?



As of now, marijuana products (including CBD) are being marketed as treatments for many conditions for which there is **insufficient or no evidence** of their safety or effectiveness.

to addiction.



effects of marijuana.

Legalization

Pros

- Alcohol use -> more harmful
- Regulation/tax -> fiscal benefits + quality control
- Addictive potential relatively low
- Reduced crime and consequences
- Medical benefits: pain, eating disorders or appetite problems neuromuscular/neurodegenerative/autoimmune disorders

Cons

- Psychosocial, health, psychiatric consequences
- Possible increase use
- Many illegal drugs have medical benefit potential
- Reduced perceived harm

JSD riving under influence -> accidents



Rhode Island: Current Laws

Medical cannabis is permitted: An individual may register as a medical cannabis patient if his or her doctor certifies that the individual suffers from one or more of the following conditions:

- cancer or the treatment of this condition
- post-traumatic stress disorder (PTSD)
- glaucoma or the treatment of this condition
- positive status for human immunodeficiency virus (HIV) or the treatment of this condition
- acquired immune deficiency syndrome (AIDS) or the treatment of this condition
- hepatitis C or the treatment of this condition
- autism
- a chronic or debilitating disease or medical condition or its treatment that produces one or more of the following:
 - cachexia or wasting syndrome
 - severe, debilitating, chronic pain
 - severe nausea
 - seizures, including but not limited to those characteristic of epilepsy
 - severe and persistent muscle spasms, including but not limited to those characteristic of multiple sclerosis or Crohn's disease
 - agitation related to Alzheimer's disease



Consequences of Use

Even if it's Legal, There are Still Some Very Real Consequences for Adolescent Use Beyond Health Problems Examples from LA County Department of Health



Dr. Drew Talks to Teens about Marijuana

https://www.youtube.com/watch?v=dzOZG8U-cGo



Learn about Weed Video for Teens

https://youtu.be/kHM6Gray_MA


You Must Be 21

To use, purchase or possess weed you have to be 21 years or older. Anyone under 18 caught using weed may be subject to counseling and community service. Even if a friend or family member buys marijuana legally and gives it to you, they could get in trouble with the law for giving it to you.

Medical Marijuana

Medical marijuana is legal if you are 18 years or older with a doctor's recommendation. Like using another's prescription medication, if you use someone else's medical marijuana it's illegal, even if they offer it to you.



Driving High

Contrary to some beliefs out there, driving high does not make you a better driver. Marijuana can affect your reaction time, body movement, and judgment of time and depth. All things that are necessary to drive and if affected can make it more dangerous for you and other people on the road.

https://youtu.be/WzRGzIwpeSU



Job

Getting a job while you're a teen is something that you should be proud of. Making extra money is amazing. However, if you break a drug-free work policy because you are using weed, it may cause you to lose your job. Plus, you jeopardize future opportunities: requesting job references, securing an even better job, and being able to list this job on your college application.

Break School Policy

Breaking school drug policy can result in removal from your sport's team and extracurricular activities, in addition to suspension, expulsion, and drug counseling. It's an unnecessary series of headaches and frustrations that you don't need in your life.



Rhode Island: Current Laws

Possession of small amounts is decriminalized:

Possession of an ounce or less of cannabis is a civil penalty punishable by a citation of \$150 for the first offense. The fine increases if not paid in a timely manner. If an individual receives three citations within an 18month period, the individual may be charged with a misdemeanor. Minors under the age of 18 are required to appear before family court and be evaluated for substance misuse disorder in addition to paying the \$150 fine.



Rhode Island Proposed Legislation

Early March 2022 bills proposed to legalize, regulate, and tax cannabis for adults 21 and older in Rhode Island.

The legislation would:

 Allow adults to possess and purchase up to one ounce of cannabis (and possess up to 10 ounces in a person's residence) and cultivate up to three cannabis plants in their homes;



Prevention

- Minimal treatment available \rightarrow Prevention
- Strategies = other SUDs
 - Perception cannabis harmful
 - Parent education/training
 - Balanced, science based, and rational education
 - No "scare-tactics"
 - School based prevention programs
 - Targeted educational programs for high risk youth





School Based Approaches

Abstinence approaches

- Abstain from SU, teach refusal skills
- Impact of abstinence only approaches

Harm Reduction

- Provide youth with skills to make SU safer
- Impact of harm reduction alone

• SBIRT shows promising results, combining both approaches

- Universal screening Prevention, motivating abstinent students to remain abstinent
- Brief intervention reduce SU with education on negative consequences, brain storming strategies to cut down or quit if the student chooses



Screening, Brief Intervention, and Referral to Treatment (SBIRT)





1. Who has attended a training on screening and brief intervention for adolescent substance use?

2. For those who have attended a training on this topic, how ago were you trained?

(1) Within the past year (2) 1-3 years ago 3) over 3 years ago



What is SBIRT

- Screening: Universal or targeted screening for assessing use and severity of alcohol; illicit drugs; and prescription drug use and disorders
- **Brief Intervention:** An interpersonal interaction whose primary impact is motivational, working to trigger a decision and commitment to change.
- <u>Referral to Treatment:</u> Referrals to specialty care for adolescents with substance use disorders



Why is SBIRT Important?

- A large population of "subclinical" AOD users exists
- Only 1 in 20 with clinical AOD involvement get services
- School setting offers an "opportunistic" setting
- Expands service options, typically limited
- MI techniques congruent with aspects of adolescent development
- Respect for autonomy, emerging independence
- It seems to work



SBIRT in Schools

- SBIRT is short, easy and effective
- GOAL: Identify risks, empower students to make healthy decisions that promote safety
- Requires collaboration



SBIRT Research

- SBIRT is an effective way to reduce drinking and substance abuse problems in adults
- A growing body of evidence shows SBIRT's effectiveness, including cost-effectiveness, in an adolescent population.



Is SBIRT Effective With Teens?

- Small, but growing literature
- Decreased AOD use, consequences, increased selfefficacy
- D'Amico RCT, 15' intervention with 12-18 year olds in primary care clinic
- Decreased MJ use at 3 month f/u*
- High satisfaction overall

D'Amico EJ et.al. J Sub Abuse Treat 2008; 35:53-61.



Screening, Assessment, and Diagnosis



Screening

- Screening is the first step and determines the severity and risk level for substance use disorder.
- The result of a screen allows the provider to determine if additional supports are needed



Top Reasons for Not Screening

- No time
- No training
- Need to triage competing problems
- Not familiar with screening
- Perceived lack of treatment
- Level of comfort



Confidentiality

- For most honest answers, always interview adolescent without parents present.
- All information will be confidential unless safety is at risk.
- When confidentiality must be broken, discuss what and how to tell parents with the teen.



Tools and Instruments

- Similar to other SUDs
 - Diagnostic interview
- Cannabis Use Disorder Identification Test
- Cannabis Problems Questionnaire
 - Adult and adolescent versions
- Marijuana Screening Inventory
- Two Instruments assessing change
 - Marijuana Problem Inventory
 - Marijuana Withdrawal checklist
- CRAFFT Questionnaire
 - Alcohol + other drug use
 - If + \rightarrow further drug specific assessment
- S2BI





DSM-5 Criteria for Substance Use Disorders

- 1 Use in larger amounts or for longer periods of time than intended
- **2** Unsuccessful efforts to cut down or quit.
- **3** Excessive time spent taking the drug
- 4 Failure to fulfill major obligations
- **5** Continued use despite problems
- 6 Important activities given up
- **7** Recurrent use in physically hazardous situations
- 8 Continued use despite problems
- 9 Tolerance10 Withdrawal

11 Craving

Severity is designated according to the number of symptoms endorsed:

- 0 1: No diagnosis
- 2 3: mild SUD
- 4 -5 : moderate SUD
- 6 or more: Severe SUD

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Arlington, VA: American Psychiatric Publishing.



S2BI

In the past year, how many times have you used

- Tobacco?
- Alcohol?
- Marijuana?

STOP if all "Never." Otherwise, CONTINUE.

- Prescription drugs that were not prescribed for you (such as pain medication or Adderall)?
- Illegal drugs (such as cocaine or Ecstasy)?
- Inhalants (such as nitrous oxide)?
- Herbs or synthetic drugs (such as salvia, "K2", or bath salts)?





Sensitivity/Specificity of S2BI

CIDI-SAM interview vs. screen frequency item for detecting a substance use disorder; N=215.

Criterion Standard Dx	Screen Frequency	Sensitivity	Specificity
Any SUD	Monthly use	90%	94%
Severe SUD	Weekly use	100%	94%

Levy, S. Ziemnik, R., Shrier, L., Sherritt, L., Spalding, A. (2013). Using a brief assessment tool to identify substance use disorders in teens. AMERSA 37th Annual National Conference, Bethesda, MD.



HOW MANY TIMES IN THE PAST YEAR HAVE YOU USED: 1) TOBACCO? ALCOHOL? MARIJUANA? 2) PRESCRIPTION DRUGS? INHALANTS? ILLEGAL DRUGS?





Part A During the PAST 12 MONTHS, on how many days did you:

- 1. Drink more than a few sips of beer, wine, or any drink containing **alcohol**? Say "0" if none.
- **2.** Use any **marijuana** (weed, oil, or hash by smoking, vaping, or in food) or "**synthetic marijuana**" (like "K2," "Spice")? Say "0" if none.
- **3.** Use **anything else to get high** (like other illegal drugs, prescription or over-the-counter medications, and things that you sniff, huff, or vape)? Say "0" if none.
- **4.** Use any **tobacco or nicotine** products (for example, cigarettes, e-cigarettes, hookahs or smokeless tobacco)? Say "0" if none.



of days

Did the patient answer "0" for all questions in Part A?				
	Yes □ No □ ↓ ↓			
	Ask CAR question only, then stop Ask all six CRAFFT* qu	estions	below	
Pa	art B	No	Yes	
C Have you ever ridden in a CAR driven by someone (including yourself) who was "high" or had been using alcohol or drugs?				
R	Do you ever use alcohol or drugs to RELAX , feel better about yourself, or fit in?			
Α	A Do you ever use alcohol or drugs while you are by yourself, or ALONE?			
F	Do you ever FORGET things you did while using alcohol or drugs?			
F	Do your FAMILY or FRIENDS ever tell you that you should cut down on your drinking or drug use?			
Т	Have you ever gotten into TROUBLE while you were using alcohol or drugs?			

- 2 Versions- with Nicotine question (2.1+N)and without (2.1)
- Each of the version has a self administered or clinician administered format
- Pocket Cards of the CRAFFT 2.1 Screening Interview are available for clinician use. All cards are printed on a red, laminated 4 X 5 pocket card.
 - Donation is \$1.00/card or \$20.00/25 cards, plus \$2.50 for shipping and handling.
 - To order cards, please download the <u>CRAFFT Card Request</u> <u>Form [PDF]</u>, and mail (or email to <u>crafft@childrens.harvard.edu</u>) the completed form and your donation to the address below.



- The CRAFFT is a mnemonic acronym where each first letter represents a key word in the six screening questions, making it easier to remember and apply in the field.
- In order to ensure accuracy of the assessment, it is important to ask the questions exactly as they are written.
- These screening tools have been tested using the specific wording and any deviation from the original wording may alter the type of response given by the adolescent.
- However, you may further elaborate and explain the question if the adolescent does not understand the question as it is written.



- WHAT IS THE APPROPRIATE PATIENT AGE RANGE FOR USE OF THE CRAFFT SCREENING TOOL?
 - The CRAFFT Screening tool has been validated for 12-18 year old youths by researchers at the Center for Adolescent Substance Abuse Research, Boston Children's Hospital. However, other established researchers have validated the CRAFFT for use up to the age of 26 years old. Please visit the CRAFFT Publications page to download PDF's of our center's research validating the CRAFFT screening tool.
- WHAT ARE THE ADVANTAGES OF USING THE CRAFFT CLINICIAN INTERVIEW VS. THE CRAFFT SELF-ADMINISTERED QUESTIONNAIRE?
 - CeASAR recommends that you use the CRAFFT Self-administered Questionnaire in your practice. Our research has found that youth prefer to take this self-administered version before seeing their healthcare professional and are more likely to answer the questions honestly.



• HOW IS THE CRAFFT SCREENING TOOL CONFIDENTIALITY PROTECTED?

 In the United States, the federal Confidentiality of Alcohol and Drug Abuse Patient Records rules [42CFR Part 2] protects the use and disclosure of medical records pertaining to alcohol and drug abuse prevention which includes the CRAFFT Screening Tool. The records may be shared in certain circumstances including when: 1) state law requires parental consent to treatment and 2) the minor applicant for services lacks capacity for rational choice as required by [42 CRF Part 2 subpart B, §2.14]. Please review your state laws regarding minor patients.

For more information on Substance Abuse Confidentiality Regulations please visit:

- The U.S. Government Publishing Office
- http://www.samhsa.gov/about-us/who-we-are/laws/confidentiality-regulations-faqs
- As an added safety precaution, we recommend:
 - That youth complete the CRAFFT screening tool in a confidential healthcare setting.
 - That youth who complete the CRAFFT on paper do not write their names on the paper to protect confidentiality.



Steps to Using CRAFFT

• Introduce screening

- I am going to ask a few health screening questions about alcohol and other drug use that we are asking all students in your grade.
- Address confidentiality
 - There is no written record of this screening that includes information that specifically identifies you. Anything you tell me will be kept as confidential as possible. One reason why this information would not be kept confidential is if something you say indicates that there is an immediate risk to your safety or someone else's safety. Additionally, you, your parent, or your guardian, could request the information we discussed today. In any case, we would figure out next steps for support together. Do you understand?
- Define substances
 - By alcohol we mean beer, wine, wine coolers, or liquor. By drugs we mean anything that one might use for the feeling it causes including: marijuana, heroin, prescription drugs like OxyContin, etc.
- Ask permission to ask questions
 - Is it okay to ask you these questions?
- ALL- Ask 3 Opening Questions regarding the frequency of use in past 12 months
 - If the patient answered "0" to all the opening "frequency of use" questions, ask the CAR question only. If the
 patient provided an answer >"0" to any of the "frequency of use" questions, ask the full set of six CRAFFT
 questions.
- ALL- Ask CAR question
- IF YES to any frequency question, ask remaining 5 CRAFFT questions



Examples of How to Introduce Screening

- "In order to help you get the correct services, I would like to ask you some questions about your health that I ask all of my clients/patients. These questions will help me to get to know you and provide you with the services you need. Is that ok?"
- "As a way to help me get to know you, I would like to ask you some questions that I ask all of my clients/patients. Is that ok?"
- If the adolescent questions asking about substance use, you could respond: "I ask everyone about their use of alcohol, tobacco and other substances. It helps me better understand your concerns and the things that may come up in any work we do together. The information you tell me is confidential. I will not disclose your answers to your parent."



Examples of Discussing Confidentiality

- "Everything you tell me will be confidential unless I hear that you're harming yourself or someone else, or you tell me you've been a victim of abuse. I will keep our conversation about your alcohol use between us unless you agree to include your parents. Do you have any questions for me about confidentiality and its limits?"
- "Thank you completing the form and for your honesty on it. I'd like to tell you about our confidentiality policy. I'll keep the details of what we discuss today confidential, which means I won't share anything with your parents. The limit of confidentiality is safety, so if you tell me something that makes me think you are at risk of hurting yourself, hurting someone else, or someone is hurting or abusing you I would have to share that information with proper health officials to make sure everyone is kept safe. Do you have any questions about how that works?"



CRAFFT In Action



CRAFFT Example

https://www.masbirt.org/schools



Dr. Bill Miller Explains MI

<u>https://www.youtube.com/watch?v=cj1BDPBE</u>
 <u>6Wk</u>



Interpreting the CRAFFT Tool

Answers	Risk	Action	
"No" to questions 1-4	No risk	Positive reinforcement	
"Yes" to Car question	Riding risk	Discuss alternatives to riding with impaired drivers (Offer Contract for Life)	
CRAFFT score = 0	Low risk	Briefadvice	
CRAFFT score = 1	Medium risk	Briefintervention	
CRAFFT score ≥ 2	High risk	Brief intervention (offer options that include treatment)	



Source: Oregon SBIRT, Department of Family Medicine at Oregon Health and Science University

The Brief Negotiated Interview


The Brief Intervention

Traditional MI is framed in the context of counseling sessions. However, the MI "toolbox" is versatile and can be effectively employed by a physician **even in a fast-paced setting.**

The Brief Intervention is designed to make MI possible even in brief encounters.



Brief Negotiated Interview

- Engagement
- Pros and Cons
- Feedback
- Readiness Ruler
- Negotiate Action Plan
- Summarize and Thank



Step 1: Engagement

Ask permission	Would you mind taking a few minutes to talk about your [X] use? Before we go further, I'd like to learn a little more about you.	
Day in the life	What is a typical day like for you?	
Substance Use	Where does your [X] use fit in?	
Explore Values	What are the most important things in your life right now?	
Slide courtesy of Boston University: BNI-ART Institute		



Using the CRAFFT Responses for Engagment

- Tell me about your use.
- About how often do you drink now?
- Do you get drunk?
- Have you had any problems related to alcohol or drugs?
- Have you ever done anything you regretted because of alcohol or drug use?
- Have you ever tried to quit? Why?



Step 2: Pros and Cons

Explore Pros and Cons

Pros

• "good things"

- •"things it does for you"
- •"things you like about it"

Cons

- "not so good things"
- "things you don't like as much"
- "the downsides, or drawbacks

I'd like to understand more about your use of [X]. What do you enjoy about it?

What do you enjoy less (or regret) about your use of [X]?

If NO con's: Explore problems mentioned during the CRAFFT or other information you have. "You mentioned that... Can you tell me more about that situation?"

Use Reflective Listening It sounds like you.....

So, on the one hand you said [PROS], and on the other hand [CONS].



Summary

Step 3: Feedback & Information

Ask permission	I have some information on [X] use— would you mind if I shared it with you?
Provide information	We know that drinking Or using [X] <i>[insert drug information here]</i> can put you at risk for social and legal problems, as well as illness and injury. It can also cause health problems like <i>[insert relevant health issues here]</i> .
Elicit response	What are your thoughts on that?



Step 4: Readiness Ruler

Ruler					On a scale from 1-10, with one being not ready at all and 10 being completely ready, how ready are you to change your [X] use?						
Reinfo	rce p	ositi	ves				mean			′s great % rea	dy to make a
Envisio	ning	Char	nge			not a	lowe	r num	ber, li	ke a 1 d	nber and or 2? ons to change
	1	2	3	4	5	6	7	8	9	10	

Slide courtesy of Boston University: BNI-ART Institute



Some risks of adolescent alcohol and marijuana use:

• 22% of teenage drivers in fatal car crashes were



drinking. Car crashes are the leading Coluseen deaths.

Marijuana affects
 a number of skills needed for safe driving,
like reacting to sounds and signals on the road.

• Teens who use **marijuana** tend to get lower grades and are more likely to drop out of high



High school students who use
 alcohol are five times more
 likely to drop out.

 Marijuana's effects on attention and memory make it difficult to

learn something new or do complex tasks.

Heavy use of marijuana as a teenager can lower IQ
 later in life as an adult.



 Teens who binge drink every month damage their brains in a way that makes it harder to pay attention and newindforstantion.

• Alcohol poisoning and suicide are major causes of alcohol-related teen deaths.



• Teen drinking and marijuana use raise the risk of unprotected sex, sexual assault, STDs, and unplanned pregnancy.

• Drinking increases the risk of injuries - the third leading cause of

death among teens.

A standard drink of alcohol equals:





Importance/Readiness/Confidence Rulers

- An important task is assessing importance of change, readiness to change, and confidence to change, which can be assessed by asking informal questions or using a numerical ruler.
 - How important would you say it is for you to quit drinking? On a scale from 0 to 10, where 0 is not at all important and 10 is extremely important, where would you say you are?
 - How ready would you say you are to quit drinking? On a scale from 0 to 10, where 0 is not at all ready and 10 is extremely ready, where would you say you are?
 - And how confident would you say you are, that if you decided to quit drinking, you could do it? On the same scale from 0 to 10, where 0 is not at all confident and 10 is extremely confident, where would you say you are?



Step 5: Negotiate Action Plan

Create down action plan •Ask client for ideas first	What are some options/steps that will work for you? What are you willing to do for now to be healthy and safe? What will help you to reduce the things you don't like about using [X]?
Envision the future •Probe for goals	What do you want your life to look like down the road? How does this change fit in with where you see yourself in the future?
Explore challenges	What are some challenges to reaching your goal?

Slide courtesy of Boston University: BNI-ART Institute



Step 5: Negotiate Action Plan (cont.)

Draw on Past Successes -Identify strengths & supports	What have you planned/done in the past that you felt proud of? Who has helped you succeed? How can you use that (person/method) again to help you with the challenges of changing now?
Explore benefits of change	If you make these changes, how would things be better?

Slide courtesy of Boston University: BNI-ART Institute



Step 6: Summarize and Thank

Reinforce resilience and resources	Those are great ideas!include some details
Ask permission	Is it okay for me to write down your plan, your own prescription for change, to keep with you as a reminder?
Write down action plan	Let's summarize what we've been discussing, and you let me know if there's anything you want to add or change (review Action Plan)



Slide courtesy of oston University: BNI-ART Institute

Step 6: Summarize and Thank (cont.)

Provide handouts	Give referrals if appropriate: •Suggest other services that might be useful •Make an "active referral"
Give action plan &	This is an agreement between you and yourself.
Thank client	Thank you for sharing with me today.

Slide courtesy of Boston University: BNI-ART Institute



Look for Acute Safety Concerns or Signs of Addiction

Acute Safety Concerns	Red flags of Addiction
ED visits	\leq 14 years
IV drug use	Daily/near daily use
Mixing sedatives	Alcohol related blackouts
Large volume of alcohol	Poly-substance use
Driving after use	



Manage Acute Risk

- Screen for SI/HI
- Involve parents or other adults, break confidentiality if needed
- Ensure an expedited "urgent" evaluation
- Contract for safety
- Have parents monitor, review indications for an emergent evaluation



Invite parents

Reflection: You said that your mom caught you with marijuana and was very concerned. I would like to tell her that you just spoke with me about it and have agreed to speak with our social worker next week.

Open-ended question: What do you think about that?



Brief Intervention



BNI Example

<u>https://www.youtube.com/watch?v=jzFZ4JYyu</u>
 w



Motivational Interviewing For Marijuana Use Among Adolescents





Who has attended a training on motivational interviewing
 For those who have attended a training on this topic, how ago were you trained?

(1) Within the past year (2) 1-3 years ago 3) over 3 years ago



Motivational Interviewing: The Basis of a Brief Motivational Intervention

Motivational Interviewing (MI) is a collaborative, patientcentered form of guiding to elicit and strengthen motivation for change.

The Spirit of MI:

- Respects patient's autonomy
- Fosters patient-centered collaboration
- Evokes/elicits patient's own reasons for change

Miller, W. R., & Rollnick, S. (2012). *Motivational Interviewing: Helping People Change* (3rd ed.). New York, New York: The Guildford Press. Miller W.R., Rollnick S. Ten things that motivational interviewing is not. *Behav Cogn Psychoter, 2009;* 37:129-40.



Core Assumptions of MI 1. Motivation is a state, NOT a trait



Miller, W. R., & Rollnick, S. (2012). *Motivational Interviewing: Helping People Change* (3rd ed.). New York, New York: The Guildford Press. Miller W.R., Rollnick S. Ten things that motivational interviewing is not. *Behav Cogn Psychoter, 2009; 37:129-40.*



2. Ambivalence to change is normal





In 2016, I will...



Stages of Change



Precontemplation

- Little or no consideration of change of the current pattern of behavior in the foreseeable future.
 - Tasks: Increasing awareness of need for change and concern about the current pattern of behavior; envisioning possibility of change
 - Goal: Serious consideration of behavior change



Contemplation

- The individual examines the current pattern of behavior and the potential for change in a risk – reward analysis.
 - Tasks: Analyzing the pros and cons of the current behavior pattern and of the costs and benefits of change; decision-making
 - Goal: A considered evaluation that leads to a decision to change



Preparation

- The individual makes a commitment to take action to change the behavior pattern and develops a plan and strategy for change.
 - Tasks: Increasing commitment; creating a change plan
 - Goal: An action plan to be implemented in the near-term



Action

- The individual implements the plan and takes steps to change the current behavior pattern and begins creating a new behavior pattern.
 - Tasks: Implementing strategies for change; revising plan as needed; sustaining commitment in face of difficulties
 - Goal: Successful action to change current behavior pattern; new pattern established for a significant period of time (e.g., 3 to 6 months)



Maintenance

- The new behavior pattern is sustained for an extended period of time and is consolidated into the lifestyle of the individual.
 - Tasks: Sustaining change over time and across a wide range of different situations; avoiding slips and relapse back to the old pattern of behavior
 - Goal: Long-term sustained change of the old pattern and establishment of a new pattern of behavior



MI Toolbox



- Open-ended questions
- Reflective listening
- Affirming
- Negotiating
- Reframing
- Summarizing

A number of tools are employed to further the conversation and employ the principles of MI. The tools listed above are not an exhaustive list nor are they specific to MI. Many of them are already familiar to practicing clinicians. The next several slides give examples of how these tools are used in MI.



MI Toolbox: Open-ended Questions



- Tell me about your marijuana use
- What problems have you had because of drinking?
- What made you decide to quit smoking last winter?
- Why do you think your boyfriend is so worried about you?



MI Toolbox Reflective listening

- You really enjoy drinking, and your husband gets upset when you drink.
- Smoking relaxes you, though it's made it more difficult to keep up with your toddler and you are not sure if it is really worth it.





MI Toolbox Reflective listening

Simple - Repeating an element of what the patient said or rephrasing what the patient said but in different words.

Complex - Paraphrasing (making a guess about) the meaning or feelings implied by the patient's words, including offering a metaphor.

Double-Sided - Acknowledging both sides of a person's ambivalence.

Amplified - Exaggerating the point so that the patient then disagrees.



MI Toolbox Affirmations



- You are someone who sticks to her goals.
- Even with all the pressures of being a single mom, you got a promotion last year.
- You thought through the risks of smoking and made the decision to quit.



Support Self-Efficacy

Affirmations can support a person's sense of competence. Patients need to believe they can be successful in order to be willing to attempt a behavior change. Positive messages from a clinician, especially those that build on strengths, can help a patient prepare for a behavioral change.

"I realize that drinking is a big part of your life right now and quitting may not be easy. You have a lot of strengths including strong willpower and a group of friends that support you. I believe that you have what it takes to be successful."



MI Toolbox Negotiation

- You were not thinking about quitting completely and you don't want to risk getting in trouble again.
- How willing are you to quit for a month to see how that goes?





MI Toolbox Reframing



- Coming here feels like a punishment to you, but usually when parents bring their kids to me it is because they are really worried.
- Marijuana doesn't really effect you in a way that you notice. In my experience, I've found that most people have are aware of some changes in how they feel when they smoke. What do you think that means for you?



Resisting the Righting Reflex





Core Interviewing Skills in MI

- Open-ended questions
- Affirmations
- Reflective listening
- Summarizing







Role Play

- 1. You are a 15-year-old who is a freshman in high school and who just got caught coming home intoxicated after being at a party with your soccer team. Your grades have slipped lately and you've been grounded a lot for breaking curfew.
- 2. You are a 17-year-old who has been using alcohol recently and is feeling sad and unhappy. You think it's normal to feel this way but your parents do not agree. If asked, you might say something like: "A lot of my friends and I go out and drink on the weekends, maybe on Thursday nights too. I don't want to stop hanging out with my friends, and my parents would kill me if they knew how much I am drinking." Adolescent: You are a 16-year-old adolescent who is worrying all the time about failing out of school. You have had several acute feelings of panic and doom, which also worries you a lot. You know that your teacher has contacted your parents about performing poorly on recent assignments and tests. Sometimes you just feel like blowing up, the pressure of school gets so high. You feel you have to work harder in school than your friends. If asked about your drinking, you might say something like: "I don't think I need to stop drinking. I only have a couple of shots of vodka or maybe a beer or 2. My health is good and besides, you're only young once."
- 3. You are a 13-year-old adolescent who has recently been using alcohol on the weekends and has been struggling with your new school. You don't want to talk with someone but your parents think it could be helpful especially since you have transitioned to a new school this year.
- 4. You are a 18-year-old young adult who seeks some help because you feel like you have very little energy and feel depressed and blue. If asked about alcohol use, you might say something like: "I drink 4 or 5 drinks most days after school at my friend's house and a few more on the weekends at parties. It is really the only way I relax. I have a lot of stress in my life, and it is just my release. I don't see any problem with it."

Role Play

- Adolescent: You are a 16-year-old adolescent who is worrying all the time about failing out of school. You have had several acute feelings of panic and doom, which also worries you a lot. You know that your teacher has contacted your parents about performing poorly on recent assignments and tests. Sometimes you just feel like blowing up, the pressure of school gets so high. You feel you have to work harder in school than your friends. If asked about your drinking, you might say something like: "I don't think I need to stop drinking. I only have a couple of shots of vodka or maybe a beer or 2. My health is good and besides, you're only young once."
- Adolescent: You are a 13-year-old adolescent who has recently been using alcohol on the weekends and has been struggling with your new school. You don't want to talk with someone but your parents think it could be helpful especially since you have transitioned to a new school this year.
- Young Adult: You are a 18-year-old young adult who seeks some help because you feel like you have very little energy and feel depressed and blue. If asked about alcohol use, you might say something like: "I drink 4 or 5 drinks most days after school at my friend's house and a few more on the weekends at parties. It is really the only way I relax. I have a lot of stress in my life, and it is just my release. I don't see any problem with it."



Additional Potential Videos on Marijuana and The Brain

- <u>https://www.youtube.com/watch?v=Nlcr1jd</u>
 <u>Tok</u>
- <u>https://www.youtube.com/watch?v=q8jJsyZh</u>
 <u>Ryc</u>

