

## Avoiding Potholes:

Navigating the Cautionary Trail of Cannabis.

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The Community of Practice (CoP) series was developed through a partnership with IMPACT WV and the WV Home Visiting Program to help participants exchange technical information and share experiences about serving clients currently experiencing or who have past experiences with substance use and neonatal abstinence syndrome (NAS).

The information in this IMPACT WV product was taken from a CoP presentation by James H. Berry, DO who serves on the WV medical Cannabis Advisory Board, WV Governor's Council of Substance Abuse, Prevention and Treatment, and is a Professor and Chair for the WVU Department of Behavioral Medicine and Psychiatry and Director of Addictions.

### Aim

- Determine what cannabis is.
- What are the risks associated with cannabis?
- Is it medicine?
- What can we do?

### General information

Cannabis is a weed that has over 400 compounds with 60 of which are pharmacologically active. Individual trials with specific cannabinoids cannot be extrapolated to the "cannabis" plant. Cannabis plant is not an FDA approved drug. The cannabis plant is a Schedule 1 substance. There are synthetic cannabinoids that have been approved by the FDA which include: Dronabinol and Nabilone. These are often prescribed for nausea/vomiting due to chemo and appetite and weight loss in HIV/AIDS and cancer. Epidiolex is a CBD medication that is prescribed in rare cases of seizure disorders among children. A doctor CAN write a prescription for Dronabinol, Nabilone and Epidiolex, but cannot write a prescription for cannabis as it is illegal by federal law.

- HIGHER POTENCY = HIGHER RISKS
- Today's marijuana is not the same as years ago, as the 1960-1980s had THC content at 2%. Today's marijuana has a THC content of 17-28%. There is no research that THC concentration that is greater than 10% is medically beneficial.

Note: the acronyms used above are well known by their abbreviations. Below are their full names. Food and Drug Administration (FDA), Cannabidiol (CBD), and Tetrahydrocannabinol (THC)



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### General Information (cont.)

#### HIGHER POTENCY AND PSYCHOSIS

- Potency greater than or equal to 10%
- The potency and way cannabis is used has increased compared to 45 years ago
- Prior to the year 2000 the average user used cannabis 2x a week
- Today: Daily (frequency + potency) = 70X THC



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#### RECORD LEVELS OF USE AMONG YOUNG ADULTS:

- 43% in the past year
- 29% in the past month
- 11% use daily
- Marijuana is the #2 substance behind methamphetamine for instances involving substances in the emergency department.

#### MOTOR VEHICLE ACCIDENTS:

- Between 2000 and 2018, cannabis related car accidents that resulted in death increased from 9% to 21%.

#### RISK OF CANNABIS USE DISORDER

- 16.3 million people in 2021 met criteria for a Cannabis Use Disorder (CUD)
- 1 in 5 risk of CUD in all users
- Risk increased if initiated early and used frequently (22-44%)
- The most vulnerable age group is young adults age 18-25 (college students and those entering the workforce).
- Individuals who received a cannabis card, were 3x more likely to develop a cannabis use disorder with no improvement in pain, anxiety and depression.

#### RAT BRAIN

- Exposure to THC around birth or adolescence demonstrates impaired learning and memory later in life.
- Hippocampus changes
- Altered reward system

As cannabis legalization expands and consumption increases, it is imperative we improve understanding of how exposure in one generation can shape health and disease of future generations.

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### General Information (cont.)

#### GATEWAY SUBSTANCE

GATEWAY: USING A SUBSTANCE AT A YOUNG AGE GREATENS RISK OF DEVELOPING AN ADDICTION TO THAT OR ANOTHER SUBSTANCE AS AN ADULT

- There are 3 substances that are gateway substances:
  - Marijuana
  - Tobacco
  - Alcohol
- Using marijuana first has increased the odds of CUD and heavy marijuana use in life.
- Marijuana is equal to tobacco for developing a tobacco use disorder (TUD).

#### TEEN SUICIDE

- Adolescent consumption is associated with an increased risk of developing depression and suicidal behavior later in life, even in the absence of a premorbid condition.

#### PREGNANCY

- The U.S. Surgeon General issued advisory against the use of cannabis in women who are pregnant.
- 16% of pregnant women use illicit drugs, and cannabis is the most common.
- Canadian Birth Registry Study: Greater risk of Autism Spectrum Disorder
- Adolescent Brain Cognitive Development study – marijuana use after maternal knowledge had greater psychopathology during middle childhood, even after controlling for other variables.
- THC can be transmitted through breastmilk.

#### CANNABINOID HYPEREMESIS SYNDROME

- Intense and persistent episodes of nausea, vomiting, dehydration and abdominal pain
- 2-3 million experience this annually
- The only cause is cannabis use, and the only cure is to stop cannabis use.



#### ANXIETY AND MOOD DISORDERS

- Post-Traumatic Stress Disorder (PTSD) – greater severity of symptoms
- Bipolar disorder – greater severity of symptoms, higher recurrence of mania
- Major depressive disorder – more depressive symptoms (anhedonia and sleep disturbance)
- Cannabinoids have a potential for harm in adolescents and those with psychiatric disorders. The current evidence base is insufficient to support the prescription of cannabinoids for the treatment of psychiatric disorders. Some states, including WV, have a certain number of psychiatric disorders that would make an individual eligible to receive a cannabis card, such as PTSD.
- Negative mental health outcomes and addiction with higher potency cannabis use

#### MEDICAL MARIJUANA AND OPIOIDS

- Legal medical marijuana, when available in retail dispensaries, is associated with a higher opioid mortality.

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### General Information (cont.)

#### PAIN

- NO benefit on physical or emotional functioning
- Individuals with chronic non-cancer pain (CNCP) have complex morbidities and multidisciplinary treatment that includes physical and psychological therapy rather than reliance on medicines alone is likely to be most effective.

#### MEDICINE?

Is cannabis a medicine? Here are 4 definitions for “medicine” (as defined by Oxford Languages):

- A compound or preparation used for the treatment or prevention of a disease.
- A substance (such as a drug or potion) used to treat something other than a disease
- A spell, charm or fetish believed to have healing, protective or other power.
- A label given to a substance used recreationally to decrease stigma and increase sales of the substance.

#### OPIOIDS:

- Popular unsubstantiated claims of benefit
- Minimization of harm
- Failure to understand the connection to addiction, chronic pain and mental illness
- Driven by strong financial motives
  - BIG PHARMA
- Physician’s duty is to do no harm

#### CANNABIS:

- Popular and unsubstantiated claims of benefit
- Minimization of harm
- Driven by pharmaceutical industry financial gains
  - Big FARMA
- Physician’s duty is to do no harm
- Recreational advocacy

#### CLEARING THE SMOKE:

- More research is needed
- If it is “medical”, doctors need to be driving the discussion, not legislation.
- First, DO NO HARM.
- Medicalizing a recreational substance has unintended consequences.
- Do not use it if you have a psychiatric disorder.
- Do not use if you are a child or a young adult.
- Do not use if you are pregnant or breastfeeding.



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### Post Session Discussion - Question and Answers



#### **What would your response be to a juvenile when they say, “there is nothing wrong with smoking weed?”**

It would be different based on the context of what you are trying to accomplish. It may be a matter of sharing some of the data we shared today. There is some association with weed and testicular cancer. Showing the studies on how your behaviors and environment can affect the way your genes work like things with rats and figuring out what is important to them. Do you want to have a higher risk for testicular cancer? Also, look at suicide, anxiety and depression. If they tell you they are depressed, or are contemplating suicide, tell them it may have something to do with the marijuana they have been smoking.\*Known association of marijuana and Human Papillomavirus (HPV) cancer.

#### **How would you recommend school counselors battle substance use within the school setting?**

Talk to your teachers, principals and administrators and say we need more education about cannabis. Most schools have some education offerings regarding opioids because opioids and addiction is such a problem in West Virginia. There is not much about cannabis, so ask to see what is available to try to get the education out there that is effective.

#### **Do you know any studies that show negative consequences of how marijuana is grown? Or the impact of the chemicals used to grow?**

Our state does a good job as far as the regulatory process to ensure that the product that is in the dispensaries is a known product and the chemicals that are in it. But, in other states both recreational, medicinal and black-market marijuana, can have many different chemicals used in these plants involving heavy metals and arsenic, among other things and that is causing a number of problems for people who are using these chemicals.

#### **I am a therapist that works with adults and children with trauma, and it seems that weed just seems to help them. Am I not seeing that right?**

Sometimes it is seductive and seems that it can really help them the way alcohol might be able to help them because it is numbing your brain for a while, and calming things down for a while. Even things like benzodiazepines, Xanax, are not the best medication for PTSD. Maybe early on, but what happens is it prevents the ability to work through the consolidated processes of those traumas and actually solve those problems over time. The best way I can describe it, is like putting a Band-Aid on cancer. It really does not get at the core issues and solve a lot of these problems. All it does is intoxicate and numb for a while, but makes PTSD worse.

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### **What would be a better treatment then (for PTSD)?**

Long term talk- therapy is the hands down best treatment for PTSD. As far as medications that are effective - selective serotonin reuptake inhibitors (SNRI) are very good medicines and have been approved for that. Other medications that are SNRI medications, such as Effexor and Venlafaxine, are common medications that are used but should be used in conjunction with a good counselor or a therapist to help someone deal with the complex issue of trauma.

### **They say when they have it too, they sleep well.**

It is mixed. Some of the data says it disrupts sleep. It's like alcohol at first, it puts you to sleep. But over time throughout the night, it does not allow your brain to go through the proper stages of sleep. So you do not get that stage of restful sleep and people do not feel like as if they are well rested. You see some of that too with cannabis where it can put you to sleep quickly, but then your brain is not able to go through the proper stages of sleep and you do not really get a good restful night's sleep.

Also, if someone is using on a regular basis for long and frequent amounts, they are not sleeping because their body has become dependent on it. So they are actually going through a withdrawal at night, and insomnia could be one of the withdrawal symptoms.

### **Are there any studies regarding the overdose with people who may misuse medicinal marijuana?**

You do not see people stop breathing like you do for alcohol or opioids. Typically you get poisoning, and get a number of other problems, but you should not stop breathing. However, there are some cases of that happening with little kids.

### **Do you think that is related to the repeated vomiting?**

It does not seem to be. You would think if someone has too much THC they would vomit. But that is a different phenomenon.

### **How is hyperemesis related to pregnancy and how is it misconstrued?**

Patients in the past who were pregnant have used cannabis as they have falsely been told it will help relieve nausea. When in fact, it only increases the vomiting. Therefore, when they continued to use more and more cannabis, it began to make them even sicker because they thought they needed to build a tolerance for it.

### **What about the use of marijuana in cancer patients?**

If a person is in end-stage cancer and wants to find something to help them sleep better or feel better and have tried everything, then I would not have a problem with someone using cannabis in that instance and really any other substance that would make them feel better. The problem is that many advocates will extrapolate end-stage cancer treatment to any cancer diagnosis or other health problem. Doing so, may worsen their current problem or create a host of new problems.

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### Post Session Discussion - Question and Answers

Have there been any social emotional surveys pertaining to how if a single mother with no health issues or no outlets is using this and says it is fine and helping me sleep. If she increased her social emotional statuses and created friends and stopped using, would the effects even out to where she would be achieving the same effects or sleeping longer?

Addiction is a biological, psychological, and social and spiritual problem just like most chronic diseases are and certainly all mental health illnesses are. Biologically, there are things we may be able to help your brain do with medications, but one of the things I stress is there are no miracles in pill form. These are just tools that may be able to help. But we know that the things people need the most are meaning, purpose, hope and connection. Getting people connected with good social supports, good jobs they have meaning to, helping their spiritual lives so they have something to look forward to. Trying to incorporate these things is what I am a big proponent for. When we are able to help people get these things back into their lives, then we are able to help them overcome their addictions.

### TIPS: WHAT CAN WE DO?

- Compassion – Why is someone using?
- Educate – Peers, friends, legislators, media
- Advocate for stricter regulations on potency related to attenuated psychotic symptoms (APS)p, prescription drug monitoring programs (PDMP), commercialization, pregnancy and youth.
- Study – Efficacy/harms, overdose data, suicide, emergency departments, hospitalizations and motor vehicle accidents.
- Screen – Ask and document: product/route/frequency/potency/age of onset
- Do not use it if you have a psychiatric disorder. Do not use if you are a child or a young adult
- Do not use if you are pregnant or breastfeeding

### Resources

- Addiction Policy Forum: <https://www.addictionpolicy.org/>
- National Institute of Drug Abuse: <https://nida.nih.gov/>
- WVU Rockefeller Neuroscience Institute Drug, Alcohol, and Addiction Services: <https://rni.wvumedicine.org/addictionservices/>