Sensible Approach to Cannabis and the Workplace

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Thanks to Russ Phifer
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- Background in analytical chemistry and Temple Ph.D. in molecular pharmacology of cannabinoid receptors
- Co-founder and past-chairman of the CANN subdivision of the Chemical Health and Safety Division (DCHAS) of the American Chemical Society
- Former Chief Science Officer at Americans for Safe Access
- Author of the American Herbal Pharmacopeia’s Cannabis Monograph
The Three Goals of IRCCMH

Research
Community-based research to bridge the gap between the lab and community practice

Education
Education focused on mental health clinicians and other providers with a focus on cannabis and mental health issues and wellbeing

Advocacy
Advocacy for safe and standardized cannabis products as a public health issue
Key Points

- Drug testing is not reliable; THC easier to detect than other drugs
- Blood, saliva, and urine levels of drugs do not indicate impairment or intoxication, ONLY exposure to the substance
- No special tests or devices are needed to detect impairment from cannabis
- Impairment testing is less expensive, more reliable, and has nationally accepted standards
- Drug testing industry is a multibillion dollar industry
The Industry is expanding:

Forty-six states and three territories have some form of medical and/or recreational cannabis program.

Approximately 95% of the American population lives in a state with at least some form of medical cannabis law, although many of those states allow only low level THC for specified illnesses.
What’s new?

- On 2/1/2018, Maine became the first state to protect workers from adverse employment action based on their use of marijuana and marijuana products, provided the use occurs away from the workplace.

- Employers may “discipline employees who are under the influence of marijuana in the workplace.” A positive drug test alone will not suffice to demonstrate that a worker was “under the influence” of marijuana.
New Research

The Grass Might Be Greener: Medical Marijuana Patients Exhibit Altered Brain Activity and Improved Executive Function after 3 Months of Treatment

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“Following 3 months of treatment, MMJ patients demonstrated **improved task performance** accompanied by changes in brain activation patterns within the cingulate cortex and frontal regions. Interestingly, after MMJ treatment, **brain activation patterns appeared more similar to those exhibited by healthy controls** from previous studies than at pre-treatment, suggestive of a potential normalization of brain function relative to baseline. These findings suggest that **MMJ use may result in different effects relative to recreational marijuana (MJ) use**, as recreational consumers have been shown to exhibit decrements in task performance accompanied by altered brain activation.”

States with cannabis access programs

- Cant receive a license or become an “agent” (worker) in many states if you have a prior drug conviction.
- Medical cannabis patients can work at a cannabis operations, as long as they don’t use on site, and pass drugs tests before employment begins.

States with employment protections for medical cannabis patients:
AZ, AR, CT, DE, DC*, FL, GA, HI, ME, MI*, MN, NY, OH, PA,

States with **DUI** protections:
AZ, MI*, MN, RI
Cannabis use and workplace accidents

- There is no or insufficient evidence to support or refute a statistical association between cannabis use and:
  - All-cause mortality (self-reported cannabis use)
  - Occupational accidents or injuries (general, non-medical cannabis use)
  - Death due to cannabis overdose (LD$_{50}$ 666 mg/kg)
  - Causing mental health diseases
Prevalence of cannabis use among full-time workers in the USA

- An estimated 6.4 percent, or 7.3 million, of full-time workers reported use of marijuana during the past month.
- The prevalence of past month illicit drug use among adult full-time workers was 8.2 percent.
- SAMSA 2014 study – 22.2 million past-month cannabis users
- NIH 2015 study – 9.5% of all US adults use cannabis
Goals of workplace impairment programs

1. Address the potential for impairment as part of a hazard assessment
2. Establish a concise policy and program on the use of any substance that can cause impairment
3. Determine the actions the workplace can take regarding impairment
4. Implement accommodation practices where necessary, including therapeutic needs and substance dependence
5. Create a supportive, healthy and safe workplace
The Marijuana Data Collection Act, introduced on 7/24/2018 by Rep. Tulsi Gabbard (D-HI) and a bipartisan group of cosponsors, would direct the Department of Health and Human Services to partner with other federal and state government agencies to study "the effects of State legalized marijuana programs on the economy, public health, criminal justice and employment."
Osmosis of Marijuana

**Inhalation**
- Onset: 0-10 mins
- Peak: 30 mins
- Duration: 1-4 hrs

**Oral**
- Onset: 60-90 mins
- Peak: 2-3 hrs
- Duration: 6-8 hrs

**Sublingual**
- Onset: 5-60 mins
- Peak: 1-2 hrs
- Duration: 1-4 hrs
57 percent of employers in America now require job candidates to be drug tested, at an average of $50 per person. The result is a drug-testing market worth $2.6 billion in 2012 and projected to reach $3.6 billion by 2018.

- The Drug & Alcohol Testing Industry Association (DATIA) has approximately 1500 members.

- Approximately 150 million drug tests were performed in 2014.
Most workplaces with drug testing programs effectively have a zero-tolerance policy.
Fifty-six percent of U.S. employers require workers to take pre-employment drug tests. The annual cost to American companies for drug testing is about $3,750,500,000.
SAMHSA Guidelines

- (Substance Abuse and Mental Health Services Administration, US Department of Health and Human Services)
- Applies to all federal government employees; adopted by many employers including government subcontractors – ZERO TOLERANCE
Current Worker Testing Triggers

- **Reasonable cause**
  - May be tested if behavior reasonably gives rise to suspicion of drug use

- **Comprehensive**
  - Periodic scheduled testing of all employees

- **Random**
  - Testing everyone or just particular groups of workers on an unannounced, irregular schedule

- **Post-accident**
  - Test when accident report is made, regardless of whether or not conduct caused the accident or incident.
Both the National Highway Traffic Safety Administration and the National Institute on Drug Abuse have stated that **marijuana impairment testing via blood sampling is unreliable.**

It is easy to detect the presence of THC metabolites in the bloodstream, but impossible to tell exactly when it was ingested.

THC can remain at low but detectable levels of 1-2 ng/ml for 8 hours or more without any measurable signs of impairment in one-time users. In chronic users, detectable amounts of blood THC can persist for days.
11-nor-9-carboxy-delta-9-THC (*inactive metabolite*) is detectable several days to several weeks, even longer for extremely heavy users. THC is a lipid soluble drug; the amount of time it takes to clear the system is dependent on how much drug was used and over what period of time the drug is used.

Attempts to correlate urine concentration with impairment or time of dose are complicated by variations in individual metabolism, metabolite accumulation in the chronic user, and urine volume changes due to diet, exercise, and age. Therefore, a positive result by the urine cannabinoid test indicates ONLY the likelihood of prior use.
More reliable than blood or urine (harder to cheat)

No nationally accepted standards or cutoff concentrations for detection

Detectable up to 72 hours after cannabis use

Point-of-collection tests are fast, but do not have acceptable levels of sensitivity; they must be followed up by laboratory testing to assure accuracy
What do the courts say on admissibility of drug tests?

- Idaho, Kentucky, Oklahoma, Michigan, North Carolina, Utah – metabolites in a criminal defendant’s blood or urine are not a Schedule 1 controlled substance.
- In some other states, a positive drug test is not evidence of impairment, or “under the influence”.
- In most other states and on federal land, zero-tolerance may be enforced.
Worker’s Compensation

Most states won’t deny a worker’s compensation case based solely on a drug test.

Employer generally must combine a positive test result with other evidence.
Workplace Impairment testing is the practice of determining which workers in safety sensitive positions put themselves and others at risk by directly measuring workers’ current fitness for duty.

“The available information indicates that impairment testing is not just a better answer on paper, but in practice as well. Employers who have used impairment testing consistently found that it reduced accidents and was accepted by employees. Moreover, these employers consistently found that it was superior to urine testing in achieving both of these objectives.”

Objectives of impairment testing

- Address employer concerns about human safety and protection of property.
  - Will promote these goals among all employees and reduce unreported accidents
- Employees who use medical marijuana will be able to reveal it
- Focusing on impairment fulfills the goals of disability discrimination statutes: to protect applicants and employees with a disability who can perform successfully with reasonable accommodations by the employer.

Standard Field Sobriety Testing (SFST) for Impairment

- Impaired performance on the SFSTs is positively related to the dose of THC administered
- Designed for both alcohol and drug impairment
- SFST Manual – detailed training for administration of tests
  - Horizontal Gaze Nystagmus (HGN)
    - Walk-and-Turn (WAT)
    - One-Leg Stand (OLS)
When the component tests of the SFST battery are combined, officers are accurate in 91 percent of cases, overall, and in 94 percent of cases if explanations for some of the false positives are accepted.

Drug tests generally produce false-positive results in 5% to 10% of cases and false negatives in 10% to 15% of cases.

(Stuster and Burns, 1998).
New technologies

- Cellphone Apps - Druid
- Breathalyzer for marijuana?
  - Colorado has passed a law creating a threshold for legal DUI for ∆9THC of 5 nanograms per ml of blood
  - Lifeloc Technologies has a $250,000 grant from the Colorado Office of Economic Development and International Trade to develop a breathalyzer
“The drug testing of employees isn’t so much a thoughtful labor policy as a compulsive habit. It’s something that we do because we’ve always done it, and we don’t know how to stop.”

“Testing has become a national addiction, and it may be time to taper off.”

Cover Story, Slate 2015
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Questions / Comments

Thank you!

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