Cannabis as substitute for other drugs: Implications for the treatment of addiction.

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Today’s talk

- Defining substitution
- Medical cannabis patients and substitution
- A review of the literature
- The Berkeley Patient’s Group study
- The SPARC study
- Future steps
Definition of terms

• Substitution
  – Conscious/unconscious choice to use one drug instead of another
  – First substitution study: Mikuriya (1970)

• Relates to harm reduction...
  – safety
  – level of addiction potential
  – effectiveness in relieving symptoms
  – access
  – level of acceptance
Medical cannabis patients and substitution

- Regular use, stable supply, access to not granted under a standardized prescription system, yet still legitimized by a doctor’s recommendation (self-medication)

- Mikuriya et al. (2007) survey of 11 medical cannabis doctors in California
  - All doctors had seen patients who were using cannabis as a substitute for alcohol
    - One said that over half of her patients reported preferring cannabis to alcohol
    - Another reported that 90% of his patients reduced their alcohol use after beginning the use of medical cannabis
Medical cannabis patients and substitution

• Mikuriya (2004) study of 92 chart reviews for medical cannabis patients
  – 53% raised by at least one alcoholic/addict parent
    • 64% identified alcoholism as presenting problem
    • 21% had been injured in an alcohol related incident
    • 10% of those abstinent from alcohol for a year attributed it to cannabis
    • 21% had alcoholic symptoms return when they stopped using cannabis
Medical cannabis patients and substitution

• Reiman (2007) study of 130 medical cannabis patients
  – 19% reported previous alcohol treatment
  – 50% reported using cannabis as a substitute for alcohol
  – 47% reported using cannabis as a substitute for illicit drugs
  – 74% reported using cannabis as a substitute for prescription drugs
Berkeley Patient’s Group Study

• N=350 anonymous patient surveys collected at Berkeley Patient’s Group in Berkeley, CA

• Male (68%) single (54%), White (66%), mean age 39, health insurance (including Medical) (74%), work full time (41%), have completed at least some college (81%), make less than $40,000 a year (55%)

• 71% report having a chronic medical condition, 52% use cannabis for a pain related condition, 75% use cannabis for a mental health issue, 64% need ongoing treatment in addition to cannabis
Berkeley Patients Group Study

• 85% report cannabis has less unwanted side effects than their other treatment, 88% report that cannabis makes their symptoms much better.
• 46% use cannabis 2-3 times per day, 35% use 3-5 grams per week, 69% report no change in their cannabis use over the past 6 months
Berkeley Patient’s Group Study

• 53% currently drink alcohol
  – 2.6 drinking days per week
  – 2.9 drinks on a drinking occasion

• 25% currently use tobacco
  – 9.5 number of cigarettes smokes daily

• 11% have used a non-prescribed, non OTC drug in the past 30 days
  – cocaine, MDMA and Vicodin reported most frequently
Berkeley Patient’s Group Study

• 16% reported previous alcohol and/or drug treatment, 2% are currently in a 12-step or other recovery program

• 40% have used cannabis as a substitute for alcohol, 26% as a substitute for illicit drugs and 66% as a substitute for prescription drugs

• The most common reasons given for substituting were: less adverse side effects (65%), better symptom management (57%), and less withdrawal potential (34%) with cannabis
Cannabis, mindfulness and substitution

• Cannabis may have the ability to facilitate mindfulness through enhancing the mind-body connection and increasing an awareness of self.

• At the same time, many cannabis consumers report using the herb to reduce their use of other, more harmful substances.

• Research question: *Is mindfulness practice and cannabis use associated with a reduction in craving for methamphetamine?*
The SPARC study

• SPARC is a medical cannabis dispensary in the SOMA neighborhood of San Francisco.
• Open since 2010, SPARC provides a range of alternative health care treatments in addition to cannabis.
• One such service is a meditation class, led by Jana Drakka, a Buddhist monk who provides services to the drug consuming and indigent populations of San Francisco.
• Rationale for the study....
Methods

• Participants were recruited from a local harm reduction center in San Francisco. To be eligible, participants had to be currently trying to stay within set boundaries regarding methamphetamine use, and be medical cannabis patients in the state of CA.

• Sample: 10 participants, all engaging in harm reduction around their methamphetamine use were enrolled in the study. Participants were compensated with 2 grams of cannabis per week, with a choice of indica, sativa, or both.

• 2 participants did not complete the study
<table>
<thead>
<tr>
<th>Participant</th>
<th>Gender</th>
<th>Age</th>
<th>Substances Used at Intake</th>
<th>Meditate as of Intake?</th>
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Study Design

- 8 single case studies
- 6 weeks of weekly, one hour meditation session
- Pre study interviews
- Measures completed before and after each meditation session
- Measures:
  - Mindfulness scale (0-195)
  - Craving scale (0-84)
  - Daily meditation logs
  - Daily report of alcohol, and other drug use
Results: Interviews

- Similar reports regarding cannabis and the addictive voice.

- Long history of using cannabis as a substitute for other substances.

- Desire for “tools” to help manage use.

- Range of current meditation practices.
Results: Overall Changes

- Craving Scale Pre=28.75; Post=20.83, a nearly eight point reduction. Overall cravings were reduced among the group as a whole after every session.
- Mindfulness Scale Pre=121.38; Post=127.5, and increase of over six points.
- Overall drug/meditation use: Days meditating per week, number of drinking days and number of days using cannabis remained fairly stable throughout the study.
Results: Relationship between cannabis, meditation and craving

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<tr>
<td>(Constant)</td>
<td>-2.41</td>
<td>.07</td>
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<tr>
<td>Mindfulness differences total</td>
<td>-1.49</td>
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<td>Meditation days total</td>
<td>2.83</td>
<td>.05</td>
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<td>Cannabis use days total</td>
<td>2.08</td>
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As can be seen above, total days spent meditating throughout the six weeks significantly predicted lower craving scores (p<.05).
Results: Relationship between cannabis, meditation and mindfulness

As can be seen above, total meditation days also significantly predicted overall increases in mindfulness, even after controlling for cannabis use and craving changes (p<.05). It should also be noted that cannabis use was close to being a significant predictor of mindfulness as well.
Implications

- Participants were using cannabis regularly, while reducing or eliminating their use of alcohol and/or methamphetamine.
- Those participating in harm reduction might be open to the management that mindfulness brings them.
- Mindfulness might be facilitated through the use of cannabis.
- Cannabis might have the ability to quiet the addictive voice to help drug consumers stay within their desired boundaries of use.
Barriers to cannabis substitution

• Research
  – Cannabis is a Schedule I drug with no accepted medical value.
  – NIDA’s mission
• Legal
  – Drug courts view all drug use as abuse
  – Collateral sanctions for cannabis offenses
  – Restrictions in lists of conditions in mmj states (not for addiction)
• Treatment
  – Abstinence only
  – Role of criminal justice system in probation and parole violations
Conclusions

• The decision to substitute one substance for another can be viewed in a harm reduction framework.

• Medical cannabis patients are a nearly ideal sample to investigate the use of cannabis as a substitute.

• Research suggests that individuals are consciously substituting cannabis for other drugs.

• It is possible that, in addition to psychoactive substitution, cannabis facilitates mindfulness which helps with behavior change.

• Research, legal and treatment barriers exist to pursuing the use of cannabis as a substitute for alcohol and other drugs.
Thank you!

areiman@drugpolicy.org for more information 😊
Endnotes

