

TOPICAL WEBINAR FOR APA MEMBERS

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Chicken or the Egg: The Cannabis and Psychosis Debate

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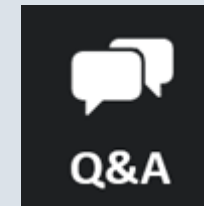
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Michael Roeske

PRESENTER

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Agenda

- Importance of causality
- History and trends
- Psychosis and cannabis use
- Implications for treatment
- Societal considerations
- Summary

Chicken or the Egg

- What is a causality dilemma?
- Why is answering it important?
- Does cannabis use cause psychosis, or vice versa, or neither??



A case example:

- 22-YO White male
- Quit college and moved back home
- Admitted to IP psych
- Daily dab (BHO) user for 8 weeks
- Reported 15 days abstinence at admission to RTC



A case example - continued:

■ History

- *Drinking at 14 and leaf cannabis at 15*
- *Early life stress; family history of AUDs*
- *No prior MH diagnosis*
- *Current labs and physical unremarkable*

■ Mental status

- *No SI/HI*
- *Good ADLs, posture, gait, eye contact*
- *Poor judgement, but had insight*
- *Delusions, and hallucinations*

A case example - continued:

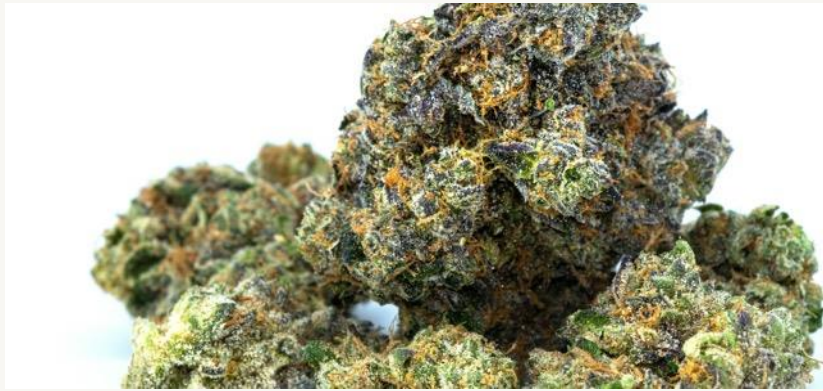
- Differential diagnosis
 - *Schizophrenia*
 - *Substance-induced psychosis*
 - *Early life stress; family history of AUDs; no known mental health*
 - *No prior MH diagnosis; self-report of anxiety*
 - *Medical history; current labs and physical unremarkable*
- Discharge
 - *Schizophrenia, provisional*
 - *Referred to a First Episode Psychosis (FEP)*

Delta-9-tetrahydrocannabinol (THC)

- Responsible for psychoactive effects
- Associated with immune and stress responses, as well as appetite, mood, and cognition (Bidwell et al. 2001)
- Partial agonist for CB1 and CB2, and activity depends on several factors
- Also stimulates dopamine release



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Shatter



Wax



Crumble



Budder



Oil



Use trends – high schoolers

- Declines and then surge in 2018 and 2019 (Meich et al., 2023a)
- Dropped from 2020 to 2021 and remains there (Meich et al., 2023a)
- 2023 levels:
 - *29% of 12th graders in past 12 months*
 - *12% of 12th graders use daily*
- Caveat: MTF estimates not comparable to NSDUH

Use trends – adults

■ Young adults in 2022:

- *Reached highest levels since 1988 (Patrick et al., 2023)*
- *44% used in past 12 months*
- *11% use daily*

■ 35 – 50 year olds:

- *More than doubled in past 10 years*
- *28% in past 12 months*
- *6.5% used daily*

Increased availability

- Late 60s, decriminalization a movement (Single, 1989)
- In 1993, Surgeon General suggested studying legalization (Garafoli, 2016)
- In 1996, CA “medical marijuana initiative” (Vitiello, 1997)
- Currently, 38 states have legalized medical cannabis; 24 for recreational use (NCSL, 2023)
- Use is higher in legalized states (Goodman et al., 2020)
 - *Not necessarily for high schoolers (Coley et al., 2024)*

Increased potency

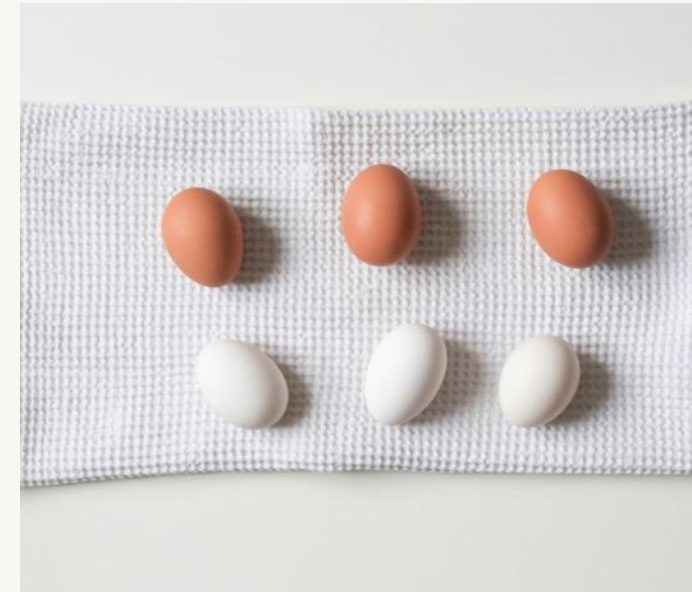
- 1995 – Illicit flower was 4% THC (NIDA, 2022)
- 2020 – 20% THC
- State marketplace flower is between 16 – 21% (Bidwell et al., 2021)
- Concentrates range from 52 to 69%, but can be as high as 90–95%
- Lacking representative data, but evidence concentrates increasingly popular

Signs and symptoms of psychosis

- Typically experience delusions and hallucinations (NIMH, 2023)
- Other symptoms include:
 - *Incoherent speech or inappropriate behavior*
 - *Decline in hygiene*
 - *Lack of motivation*
 - *Sleep disturbance*
 - *Will often show changes beforehand*

Cannabis induced psychosis (CIP)

- CIP will generally have rapid decline in symptoms (following cessation)
- More mood symptoms, e.g., anxiety, depression than primary
- Thought processes more organized and sequential; better insight into disease process
- Less family history



Frequency of CIP and conversion

- 1 in 200 people who use cannabis (PWUC; Schoeler et al., 2022)
- Nearly half convert to bipolar or schizophrenia, the latter on average a little over three years later, 50% over many years(Starzer et al., 2018)
- Higher risk for younger individuals (McDonald et al., 2024; Linked to substance use, personality, and eating disorders (Starzer et al., 2018)

The debate

- PWUC two (Ringen et al., 2016) to four times (Marconi et al., 2016) greater likelihood of psychosis
- 2.5-fold increase in prevalence in self-reported psychosis (Livne et al., 2022)
- Changes in diagnostic practice does not explain increase in CIP (Hjorthøj et al., 2021)

The debate - continued

- THC can produce transient schizophrenia-like symptoms (Ganesh et al., 2020)
- Variations in frequency and potency contributed to striking differences (Di Forti et al., 2019)
- Cannabis use accelerates age of onset and worsens course of psychotic illness (Henquet et al., 2005)

The debate - continued

- Neurobiological markers overlap with psychotic disorders (Gillespie & Kendler, 2021)
- Genomic evidence for bidirectional relationship. But greater role for “reverse-causal mechanisms” and “genetic confounding”
- Causal relationship continues to be debated (Ganesh & D'Souza, 2022; McDonald et al., 2024)



Treatment

- No clear treatment strategy for CI/FEP, other than atypical antipsychotics (Ricci et al., 2022); Abstinence is important
- “No wrong door” (SAMHSA, 2020)
- Therapeutic alliance is cornerstone of COD care; Improved symptoms, functioning, engagement, satisfaction and quality of life (Dixon et al, 2016)

Treatment - continued

- Connecting with someone with severe mental illness and an SUD can be difficult (Pierre, 2018)
- Perhaps most apparent with psychosis (Priester et al., 2016)
- Working with patients
 - *Do not dismiss, minimize, or argue*
 - *Try to empathize*

Treatment - continued

- Coordinated Specialty Care (CSC) is standard of care for FEP (Keepers et al, 2020)
 - *Individual or group therapy, family support and education programs, medication management, employment and education services, case management*
 - *Typically, 15 to 25 YOs*
- Most states have at least 1 CSC/FEP site; In 2019, over 260 in the country (NIHM, 2019)

Intersectionality

- Racialized cannabis users characterized as dangerous and unstable (Ghelani, 2020)
- White individuals shorter time to first contact with CSC (van der Ven et al., 2022)
- Diverse COD populations are underassessed, underdiagnosed, and under-referred (Priester et al., 2016)



Societal responsibility

- Is there, and what is it?
- Should there be limits on potency?
- Warning labels?
- Improve access to care?



Summary

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