Cannabis Use in the Perinatal Period – What Do We Know?

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UW Perinatal Psychiatry Consultation Line (PAL for Moms)

**WEEKDAYS 9:00 – 5:00PM | 877-725-4666 (PAL4MOM) | PPCL@UW.EDU**

- Who can call? Any provider who cares for pregnant/postpartum patients
- What kind of questions? Any behavioral health-related questions for patients who are pregnant, in the first year postpartum, or who have pregnancy-related complications (e.g. pregnancy loss, infertility). Topics may include:
  - Depression, anxiety, other psychiatric disorders (e.g., bipolar disorder, post-traumatic stress disorder), substance use disorders, or co-occurring disorders
  - Pregnancy loss, complications, or difficult life events
  - Weighing risks and benefits of psychiatric medication, non-medication treatments
  - Local resources & referrals
- Staffed by UW perinatal psychiatrists
- Learn more [https://www.mcmh.uw.edu/ppcl](https://www.mcmh.uw.edu/ppcl)

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Speaker Disclosures

Nadejda Bespalova and Kelly Wurzel have no conflicts of interest to disclose
Learning Objectives

• Describe cannabis’s effects and mechanism of action

• Discuss the knowns and unknowns of cannabis use in pregnancy and while breastfeeding

• Name the main techniques of motivational interviewing
An Intro to Cannabis

• Most commonly used psychoactive substance in the US after alcohol
  • Use doubled in the past 10 years
  • http://learn.genetics.utah.edu/content/addiction/mouse
THC, CBD, Etc

- THC and CBD are cannabinoids in the cannabis plant (along with many others)
- THC – psychoactive, produces “high,” cognitive effects, abuse potential, decreases nausea, decreases pain, increases appetite
- CBD – not intoxicating, anti-seizure, anxiolytic, antipsychotic
A Problematic Graphic

THC vs. CBD

THC:
- Psychoactive compound that creates a high
- Sourced from marijuana
- Often used for conditions that cause pain

CBD:
- Non-psychoactive compound (no high)
- Usually sourced from hemp
- Often used for conditions like anxiety

verywell
Potency

- Concentration of THC has been increasing steadily
- This is thought to explain rise in ED visits related to use
- Commercially available edibles often contain high amounts of THC in “single servings” (a gummy, candy, etc)
Cannabis and Mental Health

• cannabis use associated with increased risk for
  • psychosis
  • depression
  • anxiety
  • substance use disorders

• Causality unclear

• Strongest evidence for links between cannabis use and psychiatric disorders in those with a preexisting genetic or other vulnerability
Genetic Links

AKT1 Gene Variations and Psychosis

- Never used cannabis
- Used cannabis at week ends or less
- Used cannabis everyday

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Is It Cannabis Use Disorder?

1. A problematic pattern of cannabis use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:
2. Cannabis is often taken in larger amounts or over a longer period than was intended.
3. There is a persistent desire or unsuccessful efforts to cut down or control cannabis use.
4. A great deal of time is spent in activities necessary to obtain cannabis, use cannabis, or recover from its effects.
5. Craving, or a strong desire or urge to use cannabis.
6. Recurrent cannabis use results in failure to fulfill role obligations at work, school, or home.
7. Continued cannabis use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of cannabis.
8. Important social, occupational, or recreational activities are given up or reduced because of cannabis use.
9. Recurrent cannabis use in situations in which it is physically hazardous.
10. Cannabis use continues despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by cannabis.
11. Tolerance, as defined by either: (1) a need for markedly increased cannabis to achieve intoxication or desired effect or (2) a markedly diminished effect with continued use of the same amount of the substance.
12. Withdrawal, as manifested by either (1) the characteristic withdrawal syndrome for cannabis or (2) cannabis is taken to relieve or avoid withdrawal symptoms.
Cannabis Use In Pregnancy
Cannabis Use In Pregnancy

• Generally perceived as being “safe” by the public, including often in pregnancy
• Difficult to study
  • Info on amounts used difficult to collect and standardize
• Cannabis crosses the placenta and is found in breastmilk
• 30-60% of users continue to use in pregnancy
• Appears to be rising over time
  • Volkow et al - 3.4% in 2002–2003 to 7.0% in 2016–2017
Cannabis and Fertility

- In women may reduce fertility
  - Disrupts hypothalamic release of GnRH, leading to reduced estrogen and progesterone production and anovulatory menstrual cycles
  - This effect may disappear with tolerance to cannabis (in monkeys)
  - Normalized with cessation of use

- In men may decrease sperm count and motility
Cannabis and Miscarriage

- Data is inconsistent
- No clear link between cannabis use and miscarriage risk
- Animal studies suggest increased risk of miscarriage with cannabis use early in pregnancy
Cannabis and Birth Defects

- Available data does not consistently suggest that cannabis causes birth defects
- Some studies suggested a small increase in risk of gastroschisis
- One study linked cannabis use in first month of pregnancy with increased risk of anencephaly
  - Not taking folic acid supplementation may be a confounder
Cannabis and Perinatal Mortality

• Data on this topic very mixed and inconsistent
• No consistent evidence that cannabis use in pregnancy is associated with increase perinatal mortality
  • Risk of stillbirth may be slightly increased (compounding by cigarette smoke?)
Cannabis and Perinatal Complications

- 2003 study (Fergusson et al) showed no increased risk of perinatal morbidity and mortality associated with cannabis use in sample of British mothers
- 2011 study (Hayatbakhsh et al) showed cannabis use in pregnancy was associated with low birth weight, preterm labor, SGA, admission to the NICU
- Increased cannabis potency may account for this
- Risk does appear dose dependent
  - cannabis use <weekly not associated with at increased risk of giving birth to a newborn less than 2,500 g
  - cannabis use at least weekly associated with increased risk of giving birth to a newborn less than 2,500 g
Cannabis and Developmental Outcomes

• Most compelling evidence against cannabis use in pregnancy in this area

• Cannabinoid exposure in utero may disrupt brain development, especially at higher doses/frequency of use

• 3 studies longitudinally followed children with prenatal cannabis exposure and found
  • lower scores on tests of visual problem solving, visual–motor coordination, and visual analysis
  • decreased attention span, behavioral problems, sleep problems, higher odds of cannabis use by age 14 years
Cannabis and Breastfeeding

- Limited data
  - Picking up on a theme?
- Exposure to THC through breast milk in the first month of life could result in decreased motor development at 1 year of age
- High frequency of use leads to accumulation in breast milk
- No longer term studies
A Word on Stigma and Racism

• ACOG position is that all pregnant patients should be screened for alcohol, tobacco, and drug use at the first prenatal visit
  • Reality may look different, who gets screened?
• Studies show health care professionals are more likely to report Black patients who used drugs during pregnancy than their white patients
• 1990 study in Florida county - doctors ten times more likely to report Black women than white women to government authorities, despite similar rates of substance use
Stigma Continues

• “crack baby” myth from the 80s
  • Crack cocaine use becomes primary explanation for Black infant mortality rates which is NOT supported by evidence
• Infant toxicologies historically primarily done and reported to police at public hospitals serve lower income communities
Substance Use During Pregnancy Is Considered Child Abuse
“In adjusted analyses among neonates in states with punitive policies, odds of NAS were significantly greater during the first full calendar year after enactment (adjusted odds ratio, 1.25; 95% CI, 1.06-1.46; \( P = .007 \)) and more than 1 full year after enactment (adjusted odds ratio, 1.33; 95% CI, 1.17-1.51; \( P < .001 \))”
Talking to Patients About Their Cannabis Use

- Ask for permission
- Find out what they already know
- Offer education and resources
- Motivational Interviewing
  - Collaborative conversation aimed at strengthening person’s own motivation and commitment to change
Motivational Interviewing

• “Spirit of MI”
  • Compassion
  • Acceptance
  • Partnership
  • Evocation

• OARS
  • Open ended questions
  • Affirmations
  • Reflections
  • Summary statements
Motivational Interviewing

• “People are most able to change when they feel free not to” (affirm autonomy)

• “You have two ears and one mouth. Use them in that ratio” (listen to understand)

• “People only change when the pain of change is less than the pain of staying the same” (working with ambivalence)

• “I learn what I believe as I hear myself speak” (evoke change talk)
Resources

• MotherToBaby
  • https://mothertobaby.org/fact-sheets/marijuana-pregnancy/

• NIDA
  • https://nida.nih.gov/publications/research-reports/marijuana/can-marijuana-use-during-pregnancy-harm-baby
Case 1

• You are seeing a 6-month-old infant for a well-child check. The mother tells you that she is breastfeeding and has recently introduced some solids. She has 2 other children age 2 and 6 and you ask her how she has been doing. She says childcare has been tough during COVID and she is stressed, then jokes “Smoking some weed after the kids go to bed helps, best part of my day.”

• What would your response be? Would you broach the subject of cannabis use? Why or why not?
Case 1 Continued

• You ask for permission to share some information about cannabis use in breastfeeding.
• The mother cuts you off saying, “oh don’t worry, it’s organic, mostly CBD, all my mom friends use it.”
  • How would you respond?
Case 2

- A 28 year old cisgender woman, G1P0 comes in and excitedly shares she had a positive pregnancy test recently. This is unexpected but desired. Overall feeling well except “the morning sickness is bad, and it’s not just in the morning!” She is smoking cannabis daily to help with the nausea saying “I figured it’s fine for the baby, it’s natural. What do you think?”
Case 3

- A 32 year old cisgender woman with a history of GAD, G4P3, at 24 weeks gestation, comes in for a regular prenatal visit. While discussing the results of her EPDS questionnaire you notice she scored high on the questions about anxiety.
- She says it isn’t much of a problem and she uses cannabis to help. “I use edibles so it’s not like I’m smoking. I want what’s best for the baby of course. All these gummies are getting expensive though.”
- She shares she used cannabis in prior pregnancies and her kids are doing well.
- When you ask her more about her history of anxiety she says “well I know you can’t take anxiety medications in pregnancy.”
- She tells you she couldn’t even imagine not using cannabis because “it’s what helps me stay sane, not blow up at my kids and partner, and get some sleep at night.”
References

• Cook PS, et al. 1991. Alcohol, tobacco, and other drugs may harm the unborn. Govt Reports Announcements & Index (GRA&I), issue 15.
References

References

Hope. Care. Cure.