CANNABIS & BREASTFEEDING

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What We Know and What We Should Do

Questions abound regarding cannabis use in breastfeeding mothers—and the issue is nowhere near settled. How much transfers into milk? Are there long-term effects? Should child protection be involved? How should lactation consultants respond? The recent book, Cannabis Use Disorder, noted that some maternal/child health organizations say that breastfeeding is contraindicated if mothers use cannabis, while others are more lenient (Velez, Jordan, & Jansson, 2019). These types of recommendations make it hard to know what to do.

Exposure to cannabis via breast milk is only one part of the equation. Other risks include smoke exposure, potentially unsafe sleeping arrangements, possible parental impairment, and poly-substance use. In addition, for chronic users, cannabis can be very difficult to quit (Montoya & Weiss, 2019; Volkow, 2019). Chronic users often self-medicate for conditions such as depression, anxiety, chronic pain, and posttraumatic stress disorder. In this case, the more realistic approach may be harm reduction rather than total abstinence.

Below is a brief description of some recent studies that highlight what we know so far about cannabis in breastfeeding mothers. The state of this science is very much evolving.

Percentage of Mothers Using Cannabis

The percentage of pregnant or postpartum women who use cannabis is about 5% (Velez et al., 2019). As U.S. states legalize recreational use, the percentage is likely to increase.

Overall, 5% doesn't sound like very much, but those numbers reflect the whole population. Risk factors are better predictors of cannabis use. One recent study based on PRAMS data (N=3,207) found that when risk factors were present, the percentage of cannabis use rises dramatically (Crume et al., 2018). For example, if mothers smoked tobacco in the last trimester of pregnancy, 27% also used cannabis. Forty-six percent of women who exercised less than three times a week used cannabis. If mothers had more than three stressors in the year before delivery or had an unintended pregnancy, 55% to 57% used cannabis. And 83% of women who did not take a daily multivitamin used cannabis.

These risk factors (and others) may help identify women who are most likely to use cannabis. But they also mean that studying long-term effects is complicated. Is cannabis causing the effects, or is it the behaviors and risk factors that co-occur with it? More worrying, is there a synergistic effect of risk factors and cannabis use?

Long-Term Effects of THC on Infants

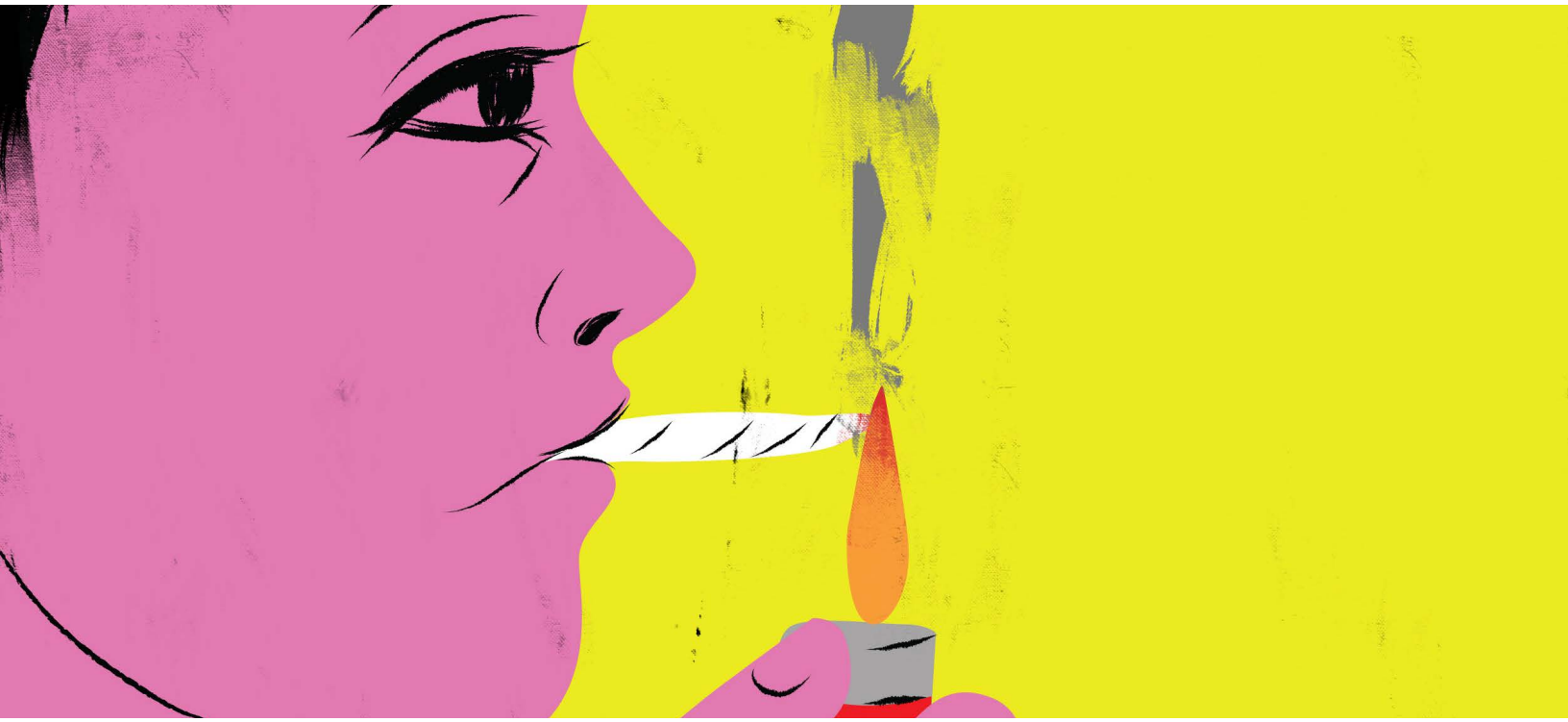
Three longitudinal studies of cannabis use during pregnancy, cited in Cannabis Use Disorder (Velez et al., 2019), showed some troubling trends. These studies were from the 1970s, 1980s, and early 2000s and were able to control for social risk factors. They found that the effects of cannabis were less likely to appear during infancy or childhood (although a couple of studies showed an increase in hyperactivity). However, two of the studies found effects when the offspring were teens or young adults (the offspring in the third study were not yet teens). These effects included significantly more problems with learning and memory, verbal reasoning, and visual perception than offspring not exposed to cannabis during pregnancy. These effects all potentially influence school performance and early employment.

Studying the effects of cannabis in breastfeeding mothers is challenging as it is highly unlikely that a woman would abstain during pregnancy and start using cannabis while she is breastfeeding (Indiana Perinatal Quality Improvement Collaborative (IPQJCT), 2019). The more likely pattern is that she used cannabis during pregnancy and continued while breastfeeding. Given this pattern, how can researchers determine the independent effects of cannabis use during breastfeeding? Instead, researchers are more often interested in the impact of current cannabis use on maternal mood (with an increased likelihood of depression and anxiety), and possible impairment in activities of daily living.

Second-hand smoke exposure can be significant if cannabis is smoked (Indiana Perinatal Quality Improvement Collaborative (IPQJCT), 2019; Reece-Stremtan, Marinelli, & Academy of Breastfeeding Medicine, 2015). Cosleeping is also unsafe when mothers have consumed cannabis.

Cannabis' Effects of Initiation and Duration

Cannabis use also affects breastfeeding initiation and duration. Based on recent PRAMS data (N=3,207), cannabis users were significantly less likely to "ever breastfeed" and significantly more likely to quite before 9 weeks (Crume et al., 2018). The effect is similar to that of tobacco.



How Much THC Transfers into Breastmilk?

Another concern is exposure to Δ-9-tetrahydrocannibinoid (THC) and its metabolites into breast milk. Two recent studies appear to offer contradictory findings (Baker et al., 2018; Bertrand, Hanan, Honerkamp-Smith, Best, & Chambers, 2018). In the first study, Baker et al. (2018) collected milk samples from 8 mothers before inhalation, and at 20 minutes, 1, 2, and 4 hours after inhalation. They found that THC peaked in the milk at 1 hour and dropped off after that. The relative infant dose was 2.5%. They noted that THC rapidly reached clinically significant concentrations in plasma and the central nervous system, but there is a rapid distribution to skeletal muscle and adipose tissue, which reduced its concentration in breast milk. There were no measurable concentrations of metabolites in breast milk within 4 hours of smoking cannabis.

The second study was a sample of 50 breastfeeding mothers, with a total of 54 samples (Bertrand et al., 2018). THC was detectable in 63% of samples up to 6 days after the last reported use. There was high variability in the THC content in the samples, with the frequent and chronic users having the highest concentrations. Five samples had detectable metabolites as well. The authors concluded that THC was detectable in the majority of samples, but they suggested that we need plasma studies of mothers and babies to understand potential exposure levels fully. Bertrand et al. (2018) also noted that we need to know the extent of oral absorption in breastfeeding infants, metabolism and accumulation patterns, and the pharmacologic effect of even low levels of cannabinoids on infant neurodevelopment.

So how do we interpret these apparently contradictory findings? As is usually true, the answer lies in the methodology. The Baker study had a much smaller sample size (N=8), with a total of 32 milk samples. Bertrand had 50 mothers, with 54 milk samples. Baker et al. also had mothers smoke a specific type of cannabis in a prescribed amount. In some ways, the control in the Baker et al. study was better in that it was more standardized. But did it reflect what mothers usually do? In Bertrand et al., the mothers smoked whatever brand they wanted (with varying percentages of THC) and smoked as often as they liked. The authors also collected usage information from the mothers so they could compare mothers' reports with the total amount of THC in the milk. Not surprisingly, the mothers who consumed more THC had higher concentrations in their milk, and THC was detectable for a longer time.

What Should Our Approach Be?

As cannabis becomes legal for recreational use, we can expect that the percentage of women using during pregnancy and breastfeeding to increase. Abstaining during this time is still the safest option, but it may not always be possible for women who are dependent or rely on it to get through the day. If abstinence is not possible or likely to occur, we need to focus on harm-reduction. Here are some possible strategies.

1. Screen early in pregnancy for cannabis use (including medical marijuana). Screening should involve urine tests as mothers frequently do not report using cannabis. Mothers should be screened multiple times. Create an environment where mothers will feel safe revealing their cannabis use. Otherwise, they are unlikely to tell you anything.

2. For mothers who cannot or will not stop using cannabis, talk with mothers about possibly using less. What support do they need to help that happen? Practical support to reduce stress (food, housing, transportation, childcare), trauma treatment, partner violence intervention, or mental health care? Are there substance use programs available in your community for pregnant and postpartum women? Can more general programs be adapted?

3. If mothers are using cannabis to treat anxiety, PTSD, chronic pain, or sleep problems, could a CBD product (with little or no THC) be used instead?

4. If mothers are using cannabis to get high (rather than to simply reduce symptoms), would an edible product be preferable to a smoked product to minimize the effects of second-hand smoke? With either type of product, mothers need someone to care for their infants and drive while they are high. And they should NEVER sleep with their babies.

5. Watch the baby for signs of lethargy, excessive sleepiness, or possible difficulties with latch and milk removal.

6. For periodic users, pumping and dumping can be a reasonable strategy. Mothers should wait at least 4 hours before breastfeeding (Baker et al., 2018). This strategy may be less effective for chronic and heavy users. With particularly heavy users, breastfeeding may be contraindicated, especially if the mother is combining cannabis with other substances.

7. As with tobacco, we need to develop guidelines about when the risks of cannabis in breastmilk exceed the risks associated with not breastfeeding.

8. Lower-income and some ethnic minority mothers have higher rates of cannabis use. These mothers need culturally competent care and policies that protect them from disproportionate child removal. (In some jurisdictions, for example, a positive screen for THC may lead to child removal from an African American or American Indian family but not for a White, middle-class family.)

The science of cannabis and breastfeeding continues to evolve. These preliminary findings show how complex it is. Despite this, our goals do not change. We need to support the mother, ensure the safety of the infant, and promote attachment between mother and baby. Social support can help with all three of these goals. Thanks for all you do for helping mothers even during stressful times.

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