

A mini-review of cannabis use during pregnancy and lactation



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Abstract

In 33 US states, cannabis (often known as marijuana) is currently acceptable for either medical or recreational use. Today, more states are thinking about legalizing marijuana for medicinal and/or recreational purposes. There will be an increase in the number of pregnant, nursing, or planning-to-get-pregnant women. The obstetric care provider must be knowledgeable about pharmacology and potential effects on pregnancy and lactation in order to give the gravida with the best possible guidance. This essay offers an insightful analysis of cannabis for those who provide obstetric care. The available research indicates that there is no safe level of marijuana and related product consumption during pregnancy or lactation. The use of cannabis and related products should be avoided during pregnancy and lactation since they have the potential to negatively affect maternal, fetal, and long-term child development.

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Introduction

Cannabis, often known as marijuana, is also referred to in slang as weed, herb, pot, grass, bud, ganja, and Mary Jane. Cannabis has been used for therapeutic, mystical, and recreational purposes for a very long time at least 5000 years (1,2). Most ancient civilizations used cannabis for its therapeutic and esoteric benefits, according to historical documents. The use of medical marijuana was first documented in the US in 1850. Smoking, dabbing, eating, and most recently vaping are some of the several ways to use marijuana. The use of medical marijuana was first documented in the US in 1850. Smoking, dabbing, eating, and most recently vaping are some of the several ways to use marijuana. As of June 2019, marijuana usage for recreational purposes was legal in 11 states. 22 additional states permit the use of medicinal marijuana (3). As marijuana use has become legalized more widely across the USA, so has women's confidence in its safety during pregnancy. It is believed that 1 in 25 pregnant women consume marijuana while pregnant (4).

Cannabis and its effects

The Indian hemp plant's leaves and flowers are what compose marijuana. Delta-9-tetrahydrocannabinol (THC), a psychotropic constituent of cannabis, acts on cannabinoid receptors in the central nervous system (CNS) and peripheral tissues (5). THC interacts with the CB1 receptor in the central nervous system and the CB2 receptor in peripheral tissues. The molecule anandamide found in the human brain and (6) THC share a similar molecular structure. Anandamide is an endogenous cannabinoid that works in the endocannabinoid system as a neurotransmitter (7). The proper operation of the nervous system and homeostasis depend heavily on this system. Numerous physiological functions, such as those related to pain, memory, mood, appetite, stress, sleep, metabolism, immune response, and reproduction, are regulated by the endocannabinoid system. Euphoria is one of the psychological effects of THC because it might boost dopamine release. The following psychological habituation may result from this impact. THC effects can differ from person to person. Some people may experience laughing, an increase in hunger, and distortions in their sense of time and space as well as their vision. Other symptoms include visual hallucinations, anxiety, despair, psychosis, and mood swings. Red eyes, dry lips, increased heart rate, tightness in the chest after smoking, tiredness, and unsteadiness with impaired muscular coordination are only a few of the physical symptoms of cannabis use (8).

Exposure to marijuana during pregnancy

Pregnancy-related marijuana use has become more common. The Centers for Disease Control (CDC) estimates that one in twenty pregnant women self-report using marijuana (9). According to a recent study, this proportion has grown to almost 18% or around 1 in 6 women. As more states legalize marijuana for recreational purposes, the belief that marijuana usage is harmless will certainly lead to an increase in these statistics.

Maternal effects

The way marijuana is consumed, associated risk behaviors, polysubstance misuse, and related issues with mental health all contribute to the pregnancy risks linked with marijuana use. The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition defines cannabis use disorder as having impaired control, social challenges, dangerous use, tolerance, and withdrawal (10).

A relationship with psychiatric illnesses like anxiety, depression, and others has been demonstrated in numerous research. As marijuana is used to treat the underlying psychiatric illness, such concomitant mental health conditions can result in addiction. To reduce marijuana usage during pregnancy, co-occurring psychiatric illnesses must be screened for and referred for care (11).

Effects on the fetus and childhood

Children who were exposed to marijuana while still in the womb performed worse on tests of visual problem-solving, visual-motor coordination, and visual analysis, had shorter attention spans, and displayed more behavioral difficulties than children who were not exposed to the drug. There has been no reliable evidence linking cognition to academic achievement. This is probably because studies involving schooling and academic performance often contain several confounding variables. However, research has shown that these kids struggle with educational milestones (12).

Lactation

Cannabinoids' effects on the developing fetal brains raise serious questions because they are lipophilic and can penetrate the blood-brain barrier. According to studies, the amount and frequency of maternal intake affect the THC levels in breast milk. THC is excreted and concentrated in breast milk, in contrast to many other drugs and treatments that are secreted into breast milk but are not concentrated there. Breast milk can be detectable for up to six days and can have a concentration of up to eight times higher than maternal plasma (13,14).

Conclusion

More women trying to get pregnant, who are already pregnant, or who are nursing will exhibit marijuana exposure as states continue to legalize marijuana for medical and recreational purposes. In conclusion, the material that was reviewed indicates that there is no safe level of marijuana usage during pregnancy or lactation. The use of marijuana has the potential to harm a child's long-term development as well as that of the mother and fetus. Women who are trying to get pregnant or are already pregnant should stop using marijuana. Consultation with a mental health professional or an addiction specialist may be necessary. Avoiding passive or secondhand marijuana exposure is also advisable because it may have negative consequences. Prenatal care should be modified to test for potential negative outcomes given the worries around the possibility of unfavorable pregnancy outcomes.

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