Research Article

Provider Perspectives of Conversations and Practices Surrounding Perinatal Cannabis Use

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ABSTRACT

Objective: To explore practices and perspectives of perinatal providers related to cannabis use during pregnancy and postpartum. **Method:** A mixed methods approach was employed using data collected from 18 perinatal providers practicing in the United States. **Results:** Most (72%) providers surveyed conduct universal evidence-based screening for perinatal cannabis use. Providers report these conversations are important and relevant, but only 55% report comfort with the topic. Four higher-order themes and five sub-themes emerged to further describe providers experiences of these conversations, including barriers and beliefs. **Conclusions:** Providers believe conversations about peripartum cannabis use are important, but describe needing additional support navigating up-to-date information, legal statues, and patient perceptions.

Key words: = perinatal; cannabis; pregnant; postpartum; healthcare conversation; obstetrics;

Cannabis is the most commonly used illicit substance during pregnancy and is associated with poor outcomes including preterm birth, low birth weight, and neonatal intensive care unit admissions (Gunn et al., 2016; Huizink, 2014). Perinatal cannabis use is also associated with neurodevelopmental deficits and behavioral problems in exposed children, including higher rates of ADHD, and is a risk factor for early onset cannabis initiation (Gunn et al., 2016; Huizink, 2014; Roncero et al., 2020; El Marroun et al., 2018). Importantly, concentrations of Δ9-tetrahydrocannabinol (THC) have increased considerably (ElSohly et al., 2016), which may exacerbate negative maternal, infant, and childhood outcomes. THC crosses the placenta and endocannabinoid receptors are found as early as 14 weeks gestation. Because of its lipophilic nature, cannabis accumulates in breast/chest milk, concentrations in babies are roughly 2.5% of maternal levels (Ayonrinde et al., 2021; Bertrand et al., 2018), and it can be detected for days to weeks after exposure (Wymore et al., 2021). Due to the associated risks, use is discouraged during pregnancy and postpartum (i.e., peripartum) by professional organizations such as the American College of Obstetrics and Gynecology (ACOG; ACOG Committee on Obstetric Practice, 2017) and the American Academy of Pediatrics (AAP; Ryan et al., 2018).

While many pregnant people report intentions to quit cannabis, ultimately many are unsuccessful (Hayes & Guille, 2024). Among those who routinely use cannabis pre-pregnancy, 41% stop and 32% reduce their use in pregnancy (Pike et al., 2021). Importantly, among those that stop

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or reduce use, 80% will return to pre-pregnancy levels of use within 4.5 months of delivery (Forray et al., 2015). The prevalence of cannabis use during pregnancy and postpartum is complicated by public perception of purported health benefits, legalization, and the misperception that cannabis is natural and therefore harmless (Jarlenski et al., 2017; Weisbeck et al., 2021; Wilkinson et al., 2016; Young-Wolff et al., 2022). Current perception is that cannabis is a "safer" medication-alternative to manage common pregnancy and postpartum symptoms; 20% of pregnant people believe that prenatal cannabis use is a harmless way of managing mental health and pregnancy-related symptoms (Weisbeck et al., 2021).

A small body of work studying prenatal providers indicates limited knowledge of, and comfort with, the topic of peripartum cannabis use. Medical professionals experience discomfort counseling on cannabis use in pregnancy and postpartum (Kitsantas & Pursell, 2024) and are often unfamiliar with contemporary evidence of adverse outcomes associated with prenatal use (Kitsantas & Pursell, 2024). This can negatively impact the likelihood obstetric providers will initiate cannabis conversations with patients (Ceasar et al., 2023; Panday et al., 2022). In one study, obstetric providers were found to be encouraging, rather than discouraging, of peripartum cannabis use (Young-Wolff et al., 2020), whereas in another, providers demonstrated avoidance of the topic altogether (Ceasar et al., 2023). Even less is known about cannabis screening practices. For instance, fewer than two-thirds (62.8%) of patients reported being screened for cannabis use in pregnancy on the Pregnancy Risk Assessment Monitoring Survey (PRAMS) from 2017-2020, with women from states with legalized cannabis more likely to be screened compared to those in states with criminalized statutes (78.7% vs. 62.3%, respectively), and only 20.5% received clinical advice aligned with practice guidelines (Skelton et al., 2025). Extant literature also indicates the existence of racial disparities in drug testing during prenatal care, at delivery and in rates of reporting substance use to child protective services, which disproportionately impact Black birthing families (Perlman et al., 2022; Roberts et al., 2023). These findings are in conflict with practice guidelines, initially released by ACOG in 2017, recommending all pregnant people be asked about cannabis use during pregnancy, and updated in 2025 to more strongly recommend universal screening for cannabis use by pregnant and postpartum patients and counseling on cessation of cannabis during pregnancy and lactation, including referral to psychological treatment, such as Cognitive Behavioral Therapy, as needed (ACOG, 2017; ACOG, 2025).

A greater understanding of the perceptions and practices of obstetric providers who treat birthing people that use cannabis is needed to align screening practices and clinical conversation with current ACOG guidelines. The aim of the current study is to examine peripartum providers' experiences, practices, and beliefs about the need for and process by which they screen and discuss cannabis use with patients to ultimately inform future interventions.

METHODS

A multi-methods approach was employed to understand healthcare providers' screening practices and perspectives on discussions with patients around peripartum cannabis use. Providers, or individuals who provide healthcare services to patients, were recruited throughout the United States via state and national listservs, including the Obstetric Special Interest Group listserv through The American Society for Addiction Medicine (ASAM), the Society for Behavioral Medicine Women's Special Interest Group, and a large OB/GYN department in the Southeast. Both national and targeted listservs were included to increase the likelihood that healthcare providers from states with and without cannabis legalization could be recruited. Providers were eligible to participate if they self-reported a minimum of 25% of their caseload included pregnant individuals in the last 6 months, practiced within the United States, and were fluent in English. All study procedures were approved by the Institutional Review Board, including a waiver of written informed consent, at the Medical University of South Carolina (Pro00135009).

Providers interested in participating could access a REDCap survey via a hyperlink in the email invitation (Harris et al., 2009; Harris et al., 2019). After opening the hyperlink healthcare providers were first presented with a series of screening questions. If their responses indicated

they were eligible for participation, they were then presented a statement of research and asked to either "agree to participate" or "decline to participate". Those who agreed to participate were then branched via programmed REDcap logic to the research questionnaire. If a healthcare provider's screening responses indicated they were ineligible, they were not presented with the statement of research and instead thanked for their time and informed they were not eligible for the study.

The research questionnaire was comprised of a series of four open-ended and six closed-ended, researcher-generated questions. Open-ended questions sought to understand barriers to or facilitators of cannabis screening with a peripartum patient, and the maternal, fetal, and newborn health impacts resulting from cannabis use during pregnancy and the postpartum period, separately. All open-ended questions contained a text box for participants to provide their response. Six close-ended, self-report items with Likert-response options were included to provide additional context to the qualitative data. Questions included: (1) percentage of peripartum patients that use cannabis in their practice, (2) frequency of cannabis assessment in peripartum patients (response choices ranged from "never" to "always"), (3) comfort discussing the topic with a peripartum patient (response choices ranged from "extremely uncomfortable" to "extremely comfortable"), and (4) frequency of referral for additional screening or treatment for cannabis use for a peripartum patient (response choices ranging from "never" to "always"). Another series of questions were included to assess the (5) importance of regular assessment of cannabis use with peripartum patients and the (6) relevance of these discussions with peripartum patients using a visual analogue scale response of 0-100, with anchors of "not at all" and "extremely." Demographic information was also captured from each provider including practice and degree type. (See Appendix A for all survey questions and response options.) Upon completion, healthcare providers were asked to provide their email address for compensation by clicking a link to an external REDcap survey where they could enter their email address. This ensured survey data were separate from identifying information (i.e., email address) in compliance with IRB approval. The Principal Investigator (MAH) emailed compensation in the form of a $35 Amazon gift card directly to the addresses provided.

A series of steps were implemented to increase data quality. First, the REDcap survey link was only disseminated directly to pre-determined listservs and never publicly posted on any website. Second, individuals whose screening responses did not align with eligibility criteria were not allowed to enter the survey or return to the screening questions and re-complete them. Third, participants were required to provide their email address to receive compensation, which involved opening a second survey link and manually entering their address into a text box. While addresses were not reviewed for eligibility or identification purposes, they were briefly reviewed for unintelligible or repeat email addresses by the Principal Investigator (MAH) before being entered as the recipient of the compensation email. Fourth, prompts were included in the survey to encourage detailed responding (e.g., "The more detail you can provide in your response, the more useful your responses will be.") Finally, all qualitative data were reviewed by the principal investigator (MAH) before analysis for coherent and complete responses.

Thirty-three individuals completed the eligibility questionnaire. Of those, 21 were eligible to participate and completed the survey. Three responses were removed from analysis because of missing or unintelligible data, yielding a total sample size of 18 providers. The sample is comprised of providers who were mostly White (n = 15, 83.3), female (n = 17, 94.4%), primarily held doctoral degrees in medicine (i.e., MD/DO; 89%), and worked in obstetric clinics (n = 15, 83.3%). Other practice areas included perinatal psychiatry (n = 1, 5.6%), pediatrics (n = 1, 5.6%) and family medicine (n = 1, 5.6%). The average age of the sample was 42 years (SD = 8.80). Healthcare providers were located across ten states, with 61% practicing in states with legalized cannabis (n = 11; medicinal and/or recreational). For full demographic and practice information, see Table 1.

Table 1. *Participant Demographics*

Patient Characteristics (**Total *N*= 18)**	*N* (%)
Race	
White	15 (83.33)
Asian	2 (11.11)
Black/African American	1 (5.56)
Gender	
Female	17 (94.44)
Male	1 (5.56)
Degree	
MD/DO	16 (88.9)
PhD/PsyD	1 (5.56)
Other- APP/NP	1 (5.56)
Practice Area	
Obstetrics or MFM	15 (88.33)
Pediatrics	1 (5.56
Psychiatry	1 (5.56)
Family Medicine	1 (5.56)
State Cannabis Legalization Status	
Legalized- Medicinal	4 (22.2)
PA	2
NH	1
UT	1
Legalized- Medicinal and Recreational	7 (38.9)
WA	3
MD	1
MN	1
NJ	1
OH	1
Criminalized	7 (38.9)
SC	6
NC	1

Descriptive statistics of all quantitative questions were used to understand participant characteristics, experiences of screening and perceptions of cannabis conversations with patients. Qualitative data were analyzed using a thematic analysis approach employing a three-step inductive process to identify and describe the major themes and sub-themes (Braun & Clarke, 2012). First, the primary investigator (MAH) read the complete dataset to ascertain an overview of the data. An initial codebook was developed by two coders, the primary investigator (MAH) and a second coder, using 50% of the data. The two coders met to review identified themes. Codes were merged using an iterative and inductive process. Next, the entire dataset was coded using the

codebook by both coders. No additional themes were identified during this step, and the codebook was deemed finalized. Finally, a third coder triple coded 50% of the data, chosen at random, using the finalized codebook. Any discrepant codes were discussed, and consensus was achieved. Descriptive statistics and response frequencies were analyzed with IBM SPSS Statistics (Version 29) and NVivo 14.0 qualitative data analysis software assisted with data management and analyses (Lumivero, 2025).

RESULTS

Most (n = 12, 72%) providers always or often assess cannabis use through universal screening integrated into clinic workflow. Roughly half of providers (n = 10, 55%) indicated feeling comfortable or extremely comfortable discussing cannabis use with patients, whereas 44% (n = 8) reported discomfort. Providers indicated these conversations are important (M = 67%, SD = 27) and relevant (M = 68%, SD = 27). A third (34%) of providers believed more than half of their patients engaged in perinatal cannabis use, but less than a quarter (n = 4, 22%) reported sometimes or often referring for further evaluation or treatment. For full descriptive statistics and frequencies of responses to the quantitative questions, see Table 2.

Table 2. *Descriptive Statistics and Frequencies of Quantitative Responses*

Question Responses	*N* (%)
What percentage of your peripartum patients do you think use cannabis in the peripartum period?	
0-10%	4 (22.00)
11-24%	8 (44.40)
25-50%	5 (27.80)
51-75%	1 (5.56)
76%+	0 (0)
How often do you assess substance use among your peripartum patients, including cannabis or marijuana use?	
Never	0 (0)
Rarely	1 (5.56)
Sometimes	4 (22.20)
Often	6 (33.33)
Always	7 (39.90)
How comfortable to you feel discussing cannabis/marijuana use with peripartum patients?	
Extremely uncomfortable	1 (5.60)
Uncomfortable	0
Somewhat uncomfortable	1 (5.60)
Neutral	5 (27.8)
Somewhat comfortable	1 (5.60)
Comfortable	4 (22.20)
Extremely comfortable	6 (33.33)
In your opinion, how important is it to discuss cannabis/marijuana use as routine practice with your peripartum patients?	66.89 (27.25)

In your opinion, how relevant is it to discuss cannabis/marijuana use as routine practice with your peripartum patients?	68.39 (27.03)
How often do you refer a patient for further evaluation of or treatment for cannabis/marijuana use during the peripartum period?	
Often	2 (11.10)
Sometimes	2 (11.10)
Rarely	9 (50.00)
Never	4 (22.20)

Analysis of qualitative data revealed four higher-order themes and five sub-themes. To view themes and subthemes with representative quotations, see Table 3. The themes identified are as follows: (1) providers and clinics use of evidence-based screening for peripartum substance use; (2) legal concerns or barriers in relation to assessment or discussion of cannabis use; (3) impacts of cannabis (a) during pregnancy and (b) postpartum, with (c) some reporting inadequate knowledge of impacts; and finally, (4) the degree to which providers beliefs about peripartum cannabis use align with scientific literature as either held by (a) providers themselves, or, providers sense of (b) beliefs held by others (i.e., their patients or the public).

1. *Evidence-based screening*. Many providers indicated screening is universal and integrated into clinic workflow, typically using a standardized screening method, *"It is our policy to do universal screening via the 4Ps."* Providers indicated these screening procedures occur at pre-determined timepoints and are given regardless of individual patient factors. *"I always assess [cannabis use] at new OB visit across the board, regardless of patient factors."* One provider noted less intimate knowledge of screening procedures, trusting its integration into clinic flow: *"I rarely ask the patient directly [about cannabis use] as it is part of the nursing intake questions."*

2. *Legal concerns or barriers*. Responses indicated that potential legal concerns, including mandated reporting laws, may pose a barrier to screening and/or conversation with patients about peripartum cannabis use. This theme was discussed with varying impacts, including on patient trust or reliability of honest disclosure: *"real concern for ability to have open [conversation] about this with current [criminalized state] marijuana laws and criminalization concern, DSS reports."* Another provider cited legal statues in their state as a barrier to screening and conversation of peripartum cannabis use. *"Primary issue in my state is that cannabis use is illegal and can lead to child protective services involvement."*

3. *Impacts of cannabis exposure*. Providers reported on their understanding of the effects of exposure to cannabis during pregnancy and postpartum, including uncertainty either due to confounds in the literature or personal knowledge limitations.

3a. *Prenatal exposure*. Generally, providers cited neurodevelopmental impacts in the offspring that are associated with cannabis exposure in utero. *"Increased risk of neurodevelopmental abnormalities during childhood in those exposed to in utero cannabis."* Some providers reported improvement to symptoms commonly experienced during pregnancy, such as nausea and vomiting, but also acknowledged negative outcomes: "*[cannabis] can help with nausea/vomiting…can create its own nausea/vomiting syndrome, can affect fetal growth via placental dysfunction, can cause subtle but persistent neurodevelopmental and behavioral issues in offspring…"*

3b. *Postpartum exposure*. Providers seemed less knowledgeable about impacts of cannabis in the postpartum period, although some cited similar outcomes of prenatal exposure, and others specifically referenced concern over exposure via lactation: "*risk of neonatal exposure to THC in breastmilk."*

3c. *Inadequate information*. There was a sense of inadequate information from providers on the impacts of peripartum cannabis exposure, either because of the state of the literature, or because the provider felt they lacked sufficient knowledge on the topic. Providers commonly reported uncertainty with or low confidence in the quality of scientific information; "*data overall is poor with multiple confounders."* A gap in providers'

knowledge was reported particularly as it relates to the impacts of exposure during breast/chest feeding or the postpartum period more broadly: *"I would have to educate myself on the risks of marijuana use in the postpartum period more."*

4. *Alignment with the literature*. The final theme that emerged from provider responses is the degree to which perceptions or beliefs held about peripartum cannabis use align with scientific literature. These responses were broken into two sub-themes and include beliefs reported by the provider, which often did not align with empirical literature, and providers' perceptions of patients' beliefs, which were often congruent with peer-reviewed literature.

4a. *Provider beliefs about cannabis use*. Some providers did not believe peripartum patients use cannabis for reasons commonly reported in the literature such as sleep, nausea, pain and stress management (Weisbeck et al., 2021): *"I don't think sleep is why women use cannabis during pregnancy/ postpartum..."* Moreover, some providers indicated the belief that cannabis may improve symptoms of mental health conditions, including anxiety and depression, "*Possible reduction in postpartum anxiety/depression*", or that it may function as a harm-reduction approach to peripartum substance use: "*Cannabis use may be harm reduction against using other substances (fentanyl, meth, alcohol, nicotine) and its use should not be demonized."*

4b. *Provider-reported patient beliefs*. Some providers reported drivers of peripartum cannabis use that align with the empirical literature (Weisbeck et al., 2021); *"Patients report benefit [from cannabis use] for things like anxiety, sleep, pain."* Other providers indicated a perception that patients believe cannabis is natural and therefore its use is harmless, or that cannabis is safer than medication-alternatives. These perceived patient-beliefs purportedly deter patients from stopping or decreasing use in the peripartum period; *"Many of the people with cannabis use are convinced that it is not harmful and/or have no intention to stop/decrease use. Most cited reason is 'it's natural', 'it's safer than pharmaceuticals"*, which is also reported in the empirical literature (Jarlenski et al., 2017).

Table 3. *Themes, Subthemes and Provider Quotes*

Theme **Sub-theme**	**Reflective Quotes**
1. Evidence-based screening	
	I believe in universal screening
	It is our policy to do universal screening via the 4Ps.
	I screen patients universally for all substance use including pregnancy - first OB visit, delivery, and postpartum
	I always assess in a new patient, consult or transfer of care. If the patient is a return and this has not been previously addressed then I will assess
	I rarely ask the patient directly as it is part of the nursing intake questions. To my knowledge, all patients are asked whether they use any illicit drugs.
2. Legal concerns or barriers	
	Concern for mandatory reporting laws violating the patient's trust and complicating their lives, concern for criminal implications for patients
	Primary issue in my state is that cannabis use is illegal and can lead to child protective services involvement

	Real concern for ability to have open convo about this with current [redacted criminalized state] marijuana laws and criminalization concern, DSS reports
3. Impacts of cannabis exposure	
3a. Prenatal	*Low birth weight increase incidence of SIDS irritability cognitive, brain effects long-term neuro cognitive, behavioral effects*
	Positive: can help with nausea/vomiting sx Negative: can create its own nausea/vomiting syndrome, can affect fetal growth via placental dysfunction, can cause subtle but persistent neurodevelopmental and behavioral issues in offspring, can encourage cannabis use in youth in the home
	Possible adverse neurodevelopmental outcomes in child, occasional worsened nausea and vomiting in mother
3b. Postnatal	*There are also concerns about secondhand smoke exposure*
	Concern for decreased ability to provide safe care for a baby when impaired (same concern for alcohol use)
	Risk of neonatal exposure to THC in breastmilk
3c. Inadequate knowledge	*I assume it's soluble in breast milk but unsure regarding outcomes*
	There is not enough known about the long-term impact of small amounts of cannabis in breastmilk.
	I am not sure of the effects while breastfeeding
4. Misalignment with literature	
4a. Provider beliefs about cannabis use	*Generally safe during breastfeeding*
	Possible reduction in postpartum anxiety/depression
	Knowing that cannabis use may be harm reduction against using other substances (fentanyl, meth, alcohol, nicotine) and its use should not be demonized
4b. Provider-reported patient beliefs	*Many of the people with cannabis use are convinced that it is not harmful and/or have no intention to stop/decrease use. Most sited reason is "it's natural", "it's safer than pharmaceuticals", and "I used it in other pregnancies and my baby/child is fine"*
	Patient belief that cannabis use is not so harmful
	Many cannabis users do not believe the substance to be harmful.

DISCUSSION

Mixed methods data were collected from 18 providers practicing in states where cannabis use is legalized and criminalized in the United States to understand conversations and practices with their patients around peripartum cannabis use. Results indicate providers think this topic is important (M = 67%, SD = 27) and relevant (M = 68%, SD = 27) and are using standardized screening practices to assess use. However, despite being aware of use, providers often do not refer patients for additional assessment of or intervention for potentially problematic use (n = 4, 22%). Results indicate that despite 72% of participants reporting universal screening, actual conversation with patients about peripartum cannabis use beyond screening may be limited.

Conversations may be avoided because of legal concerns, perceived patient beliefs, and knowledge gaps. This may also explain why many providers did not feel comfortable with this topic (n = 8, 45%). Results suggest two main areas for improvement. First, ongoing education is needed to ensure providers are up-to-date on maternal, fetal, and neonatal outcomes associated with exposure to cannabis and the legalities related to perinatal cannabis use specific to each provider's state. This can begin in residency and/or fellowship, with ongoing training facilitated by courses offering Continuing Medical Education (CME) credits. Second, providers would likely benefit from tools to support conversation or referral to treatment for peripartum cannabis use. Shared decision-making tools and use of technology may potentially fill identified gaps.

Providers indicate screening for cannabis use in the peripartum period is important. Consistent with the recommended standard of care, they employ brief, validated measures, such as the 4P's (Chasnoff et al., 2007), for universal substance use screening. Unfortunately, screening does not always translate to conversation between a patient and provider. Previous work revealed only half of patients who disclosed cannabis use to their obstetric providers received counseling (Holland et al., 2016). A potential reason for this could be discomfort with the topic, which was endorsed by 45% of our sample. Several themes that emerged could influence discomfort, including insufficient knowledge, concern for mandated reporting requirements, and perception of beliefs held by patients that cannabis is natural and therefore safe, undermining a recommendation for reduction or abstinence. Unfortunately, when patients are not counseled on the risks and benefits of peripartum cannabis use, they turn to less reliable and non-evidence-based sources of information such as online forums (Lebron et al., 2022). Increased training to initiate difficult conversations during medical or graduate training could better-position healthcare providers to engage in patient-centered clinical conversations and improve patient healthcare outcomes.

Another identified barrier to screening and/or conversations with patients around cannabis use is concern over the impact of mandated reporting laws and related legal considerations. At the time of publication of this paper, most states do not require mandatory reporting for a verbal report of cannabis use in pregnancy; rather, a biological sample confirming substance use is needed (Legislative Analysis and Public Policy Association, 2024). Relatedly, providers indicated concern over the accuracy or honesty of patient reports on substance use screeners due to fear of legal consequences, which varies by state. Medical institutions and clinic managers should work to support providers and patients to be informed of the laws governing their state to increase the confidence from both parties to engage in these important screenings and conversations. Having accurate legal information will help providers and patients feel comfortable to discuss cannabis use during pre/post-natal care and make informed decisions without fear of legal repercussions.

Finally, some providers indicated benefits to peripartum cannabis use that are not supported by the scientific literature, such as improvement to anxiety (Kedzior & Laeber, 2014) or depressive disorders (Sorkhou et al., 2024), or as a harm reduction strategy in the perinatal period (Gunn et al., 2016; Huizink, 2014; Roncero, 2020; El Marroun et al., 2018; Calvigioni et al., 2014). Importantly, effective treatments exist for perinatal anxiety and depression (Weingarten & Osborne, 2024). Given increases in cannabis use in the United States in the past decade (Hayes et al., 2023) medical and graduate training curricula should incorporate more cannabis-specific topics to better equip healthcare providers with the knowledge needed to deliver patient-centered care that is grounded in an empirical evidence-base. Moreover, researchers can work to disseminate findings in a way that is reader-friendly for individuals without intensive statistical training. While cannabis may function as a harm reduction strategy for other populations who use substances (Siklos-Whillans et al., 2021), perinatal populations are vulnerable to the negative effects of exposure, which may negate any harm-reduction benefits. Psychoeducation tailored to the peripartum period, combined with referral to other specialties, including behavioral health, to improve a patient's sleep, stress, anxiety, or mood symptoms using evidence-based treatments or medications that which are low risk in pregnancy, may diminish the need for cannabis use during this period and reduce fetal and neonatal exposure.

Obstetric practices can consider the role of technology to overcome aforementioned barriers to patient-provider conversations around perinatal cannabis use. Technology can be leveraged for universal screening and referral to treatment for peripartum substance use, including cannabis, and to support patient-centered decision making around use. Text and phone-based screening and referral systems are emerging as an alternative to in-person practices and have demonstrated greater effectiveness and reduced racial gaps in screening, positive screens, being referred to treatment, and receiving treatment for mental health and substance use disorders, compared to in-person screening (Guille et al., 2022). Additional technology-enhanced tools can be developed to support patient-centered decision making related to peripartum cannabis use. Shared decision-making tools present up-to-date information on a health behavior and allow patients to tailor a decision to their identified values and goals, including in pregnancy (Kennedy et al., 2020). A decision making tool for peripartum cannabis use can cover topics discussed by providers in our study including legal considerations, alternative options to manage depression, anxiety, or other commonly experienced symptoms in pregnancy and postpartum, and present evidence-based information on risks/benefits of cannabis use and risks/benefits of alternatives. To our knowledge, no decisional aid exists for peripartum cannabis use; however, a similar tool has been shown to be effective for pregnant people navigating treatment decisions for opioid use disorder (Guille et al., 2019). Clinicians and researchers should work in tandem to develop tools for cannabis and evaluate efficacy and effectiveness. Technology is a promising means to eliminate the impact of provider discomfort or training-gaps to improve patient-centered care without increasing provider burden.

Limitations

Mixed methods data were collected from a small group of providers almost entirely identifying as female. While this can potentially skew results and limit generalizability, qualitative data analysis is designed to offer a rich understanding of a topic rather than generalizable findings. Notably, roughly 85% of OB/GYN providers identify as women (Vassar, 2015), suggesting our sample demographics may be representative of perinatal providers by gender. Researchers aimed to recruit professionals from both legalized and criminalized states to understand providers' experiences practicing in states with varying legal statues. To meet this goal while working within timeline and budget constraints, recruitment leveraged targeted listservs to yield a final sample size of 18, which exceeds the recommended number of participants needed to achieve theoretical saturation (n = 9-17; Hennink & Kaiser, 2022). Additionally, collecting qualitative data via survey limits the ability of the researchers to ask follow-up or clarifying questions. Utilizing a semi-structured face-to-face interview format could have potentially yielded different or more in-depth responses because of the interviewer's ability to follow-up or probe. Collecting mixed methods data via online survey was deemed by the researchers to optimally overcome several potential barriers to recruiting and collecting data from healthcare providers who are actively in clinic with a patient caseload including: (1) scheduling barriers as healthcare providers are often very busy during working hours; (2) geographic and time-zone barriers, because enrolling providers from a variety of states with marijuana legalization was deemed important for diversity in perspective; and (3) any potential social desirability bias that might intentionally or unintentionally impact responses to questions that directly or indirectly indicate stigma or variable alignment with recommended clinical practice guidelines. Prior work has shown online surveys can mitigate socially desirable responding tendencies (Richman et al., 1999). Future work could explore similarities and differences in themes from online versus face-to-face interview formats with healthcare providers to illuminate concordance or divergence. However, overall, the themes identified in the current study were generally consistent with the limited existing literature.

To ensure integrity of our data, all responses were reviewed prior to analyses, and incomplete or unintelligible responses were removed. Finally, by nature of recruitment methods and eligibility requirements, providers in this sample represent those with experience treating perinatal substance use. Clinic procedures and provider

understanding of and comfort with holding conversations about perinatal cannabis use may differ for providers with less exposure to peripartum people who use substances. Our participants may be more knowledgeable about peripartum cannabis use and screening practices than the general population of providers who care for pregnant and postpartum people. Future research can seek to recruit a larger, more diverse sample with a focus on generalizability.

Conclusion

Our results highlight current gaps in knowledge and care of perinatal persons who use cannabis, resulting in suggestions to better support perinatal providers. Clinicians, researchers, and administrators should explore processes to develop and implement potential solutions. Providers form crucial relationships with patients, and are viewed as trusted and reliable sources of information. Increasing access to education on state reporting laws, up-to-date scientific findings, and patient-centered approaches to cannabis conversations will better serve pregnant and postpartum people. Future work should focus on patient perspectives of these conversations, and feasibility and acceptability of proposed solutions to improve care for this population.

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