Qualitative Assessment of Access to Perinatal Mental Health Care: A Social-Ecological Framework of Barriers

Deborah Tyokighir, M.D.¹, Ashley M. Hervey, M.Ed.², Christy Schunn, LSCSW³, Daniel Clifford, Ph.D., MPH⁴, Carolyn R. Ahlers-Schmidt, Ph.D.¹,²

¹University of Kansas School of Medicine-Wichita, Wichita, KS
²Department of Pediatrics
³Center for Research for Infant Birth and Survival (CRIBS), Wichita, KS
⁴Kansas Infant Death and SIDS (KIDS) Network, Wichita, KS

ABSTRACT

Introduction. Psychological distress affects up to 25% of pregnant women and contributes to poor birth outcomes. Screening with appropriate referral or treatment is critical, yet many women do not access services. This project aimed to identify knowledge of and barriers to mental health services to the perinatal period.

Methods. Interviews with low-income pregnant or postpartum women, primary care providers (PCPs), and mental health care providers were conducted in Sedgwick County, Kansas. Interviews were transcribed, independently reviewed using grounded theory, and stratified using a social-ecological model framework.

Results. Thirty-three interviews were conducted with 12 (36%) pregnant or postpartum women, 15 (45%) PCPs, and 6 (18%) mental health care providers. Barriers were categorized into three levels: individual, social, and society. Individual level barriers, including cost or lack of insurance and transportation, were consistent across groups, however, women identified barriers only at this level. Provider groups identified barriers at all levels, including lack of support, poor communication between providers, and Medicaid limitations.

Conclusions. Multi-level interventions are needed to improve access to mental health care for low-income women in the perinatal period.

INTRODUCTION

Psychological distress during pregnancy, including depression, anxiety, and stress, can lead to poor birth outcomes, including preterm birth and low birthweight.¹² Perinatal mood and anxiety disorders (PMADs) lead to increased medical expenses, cessation of breastfeeding, and increase the risk of child abuse and neglect.³ Perinatal depression, the most common pregnancy complication in the U.S., impacts the social, emotional, and cognitive development of infants,¹ increases stress hormone levels,² negative reactivity to stress,³ sleep disturbance, attention-deficit hyperactivity disorder, conduct disorders, and cognitive deficits.⁴ Perinatal women with depression are more likely to be uninsured, of low socioeconomic status, and have increased use of psychiatric and non-psychiatric services.⁷

The ability to identify and mitigate perinatal psychological distress properly is of utmost importance. Screening women for PMADs is recommended by the American College of Obstetricians and Gynecologists (ACOG),⁸ the American Academy of Family Physicians (AAFP),⁹ and the American Academy of Pediatrics (AAP).⁹ Women who screen positive should be treated or referred to services. Yet, access to mental health services was an identified treatment barrier for women with lower socioeconomic status.¹⁰ Other barriers included lack of knowledge, cultural complexities, and stigma around diagnosis.¹¹

Previous studies assessed barriers to mental health care access based on perspectives of pregnant and postpartum women, health care providers, and mental health providers.¹²⁻¹⁵ However, no identified studies assessed perceived barriers both within and across these three groups. As such, the aim of this project was to triangulate themes¹⁶ from interviews with low-income pregnant or postpartum women, primary care providers (PCPs), and perinatal mental health providers regarding knowledge of and barriers to perinatal mental health services.

METHODS

This qualitative study evaluated knowledge of and perceived barriers to accessing perinatal mental health services in Sedgwick County, Kansas. The study was approved by the University of Kansas School of Medicine Institutional Review Board.

Participants. Pregnant (greater than 19 weeks) or postpartum women (infant less than one year of age) 18 years of age or older, able to understand English, and living in Sedgwick County were recruited from existing maternal and child health programs (e.g., prenatal education, home visitation, case management). Program staff, which were considered trusted sources of information, described the study and provided written information to participants. To reach women not connected to services, recruitment fliers were distributed through other community organizations (e.g., churches, schools).

PCPs practicing in Sedgwick County and able to understand English were recruited from the University of Kansas School of Medicine-Wichita, the Medical Society of Sedgwick County, and federally qualified healthcare centers. Perinatal mental healthcare (MHC) providers practicing in Sedgwick County and able to understand English were recruited through the University of Kansas School of Medicine-Wichita Department of Psychiatry and Behavioral Sciences, the Wichita State University Psychology Department, Postpartum Support International (Kansas Chapter), United Way 211 resource hotline, internet searches, and professional societies. Snowball sampling methods identified additional PCP and MHC providers from participants.

Structured interviews were completed over the telephone between October 2019 and March 2020. Participation was voluntary and informed consent was obtained prior to participation. Calls were recorded and lasted approximately 20 minutes. A standardized interview script for each participant group was followed. Interviews within each group were conducted until saturation of themes was reached.¹⁷ Interview questions for participants included demographics (e.g., age, insurance), mental health (e.g., diagnosis, knowledge), mental health in terms of recent pregnancy (e.g., screening, comfort level), and knowledge of and access to mental health services (i.e., barriers or successes to accessing). PCP interviews included specialty and practice, standard of care, knowledge, cultural complexities, and stigma around diagnosis.¹¹

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practice for screening women for PMADS, knowledge of mental health services (e.g., medications, referral process, location, follow-up), and barriers or success in connecting women to resources. MHC provider interviews addressed specialty and practice, referral sources and follow-up, mental health medications, and barriers or successes in connecting women to resources.

Recordings were transcribed and identifying information removed. Transcripts were reviewed independently by researchers and community partners using grounded theory approach. Within group themes were discussed until consensus was reached and crosscutting themes were identified by triangulation. Reported barriers to accessing mental health care were organized using a social-ecological model, distinguishing individual, social (interpersonal and community), and society (organizational and public policy) level barriers.

RESULTS

Thirty-four interviews were conducted. However, a discrepancy in gestation by weeks was identified for one interview and removed from analysis. A total of 33 interviews were included, 12 (36%) pregnant or postpartum women, 15 (45%) PCPs, and 6 (18%) MHC providers.

Pregnant and Postpartum Women. Of the 12 women interviewed, 17% (n = 2) were pregnant and 83% (n = 10) were postpartum with an infant less than one year of age. The average participant age was 24 years (range 18 - 33 years). One quarter of participants (25%; n = 3) had been diagnosed with a mental illness (Table 1). Participants described general stress and anxiety regarding pregnancy and fear of something happening to their child during pregnancy or after birth. One stated, “It’s a scary feeling, we are looking into an abyss. I have no idea what I am getting myself into. Not only the physical caring for my child but the emotional. That’s what’s scary.” Several mentioned breastfeeding challenges as a major contributor to stress and anxiety in the postpartum period. One reported, “I was struggling because I couldn’t breastfeed. She wouldn’t latch. Yeah. And I wanted to breastfeed. So, I was like, I planned on it and I didn’t plan on nothing else.”

Women reported varied experiences regarding screening and discussion of PMADS with healthcare providers. Only 67% (n = 8) reported ever completing a screening tool related to their perinatal mental health. One stated, “To me it was good. It was them showing they do care about the patient.” However, responses were mixed regarding preference for face-to-face assessment or use of a paper or digital screening tool. Some expressed concern about receiving feedback from a paper tool. “Because there is no guarantee they will even look at the paper. Because if feels like when you do that, it feels like they just paper. Because if feels like when you do that, it feels like they just don’t.”

With regard to accessing mental health care, participants identified barriers only at the individual level; these included lack of transportation, cost or lack of insurance, issues with childcare while accessing services, lack of knowledge of available mental health resources, and scheduling difficulties with services (Table 2). Few (17%; n = 2) identified free or low-cost perinatal mental health care providers. Most (75%; n = 9) would use the internet to locate local resources. Others reported community organizations, pamphlets, doctor, or

### Table 1. Demographics of pregnant and recently delivered women (n = 12).

| Race/ethnicity          | n (%) |
|-------------------------|-------|
| Hispanic                | 4 (33%) |
| Non-Hispanic White      | 3 (25%) |
| Non-Hispanic Black      | 2 (17%) |
| Asian                   | 1 (8%)  |
| American Indian         | 1 (8%)  |
| Multiracial             | 1 (8%)  |

| Education               |       |
|-------------------------|-------|
| High school or less     | 6 (50%) |
| Some college            | 4 (33%) |
| College degree          | 2 (17%) |

| Employment              |       |
|-------------------------|-------|
| Unemployed              | 5 (42%) |
| Part-time               | 5 (42%) |
| Full-time               | 2 (17%) |

| Marital status          |       |
|-------------------------|-------|
| Single                  | 3 (25%) |
| Separated               | 1 (8%)  |
| Partnered               | 2 (17%) |
| Married                 | 6 (50%) |

| Insurance               |       |
|-------------------------|-------|
| None                    | 1 (8%)  |
| Medicaid                | 5 (42%) |
| Military                | 1 (8%)  |
| Private or parent’s     | 5 (42%) |

| Financial status        |       |
|-------------------------|-------|
| Struggling to keep up with the cost of living | 4 (33%) |
| Comfortable keeping up with the cost of living | 5 (42%) |
| Keeping up with the cost of living with extra money | 2 (17%) |
| Missing                 | 1 (8%)  |

Despite differences in experience, all (100%; n = 12) women reported they would feel comfortable being asked about or completing a screening tool related to their perinatal mental health. One stated, “To me it was good. It was them showing they do care about us, the patients.” However, responses were mixed regarding preference for face-to-face assessment or use of a paper or digital screening tool. Some expressed concern about receiving feedback from a paper tool. “Because there is no guarantee they will even look at the paper. Because if feels like when you do that, it feels like they just don’t.”

In terms of accessing mental health care, participants identified barriers only at the individual level; these included lack of transportation, cost or lack of insurance, issues with childcare while accessing services, lack of knowledge of available mental health resources, and scheduling difficulties with services (Table 2). Few (17%; n = 2) identified free or low-cost perinatal mental health care providers, and most (75%; n = 9) would use the internet to locate local resources. Others reported community organizations, pamphlets, doctor, or
family as means to locate resources. Several women also identified an interpersonal level success with social support from their husband or family, as making it easier to access care.

Table 2. Perinatal mental health access barriers as identified by interview cohorts.

| Theme                        | Women | FM providers | OB providers | Peds providers | MHC providers | Examples                                                                                     |
|------------------------------|-------|--------------|--------------|----------------|--------------|----------------------------------------------------------------------------------------------|
| Individual                   |       |              |              |                |              |                                                                                               |
| Transportation               | x     | x            | x            | x              | x            | “My patients definitely have issues with transportation. Transportation is a huge issue for a lot of people.” (FM) “I am on a schedule, I can’t be transported [by bus system] at certain times.” (Postpartum) |
| Insurance                    | x     | x            | x            | x              | x            | “Cost is probably the biggest issue with my patients.” (FM). “There is a lot of anxiety with the cost.” (OB). |
| Childcare                    | x     | x            | x            | x              |              | “It’s kind of hard to bring a 4-year-old into a therapy session. She may not have anyone to watch.” (MHC) “[It would be helpful if] somebody could help me take care of my baby while I went to therapy.” (Postpartum) |
| Knowledge (women)            | x     | x            |              |                |              | “Having that knowledge of available resources would be [a positive] change.” (Peds)             |
| Scheduling                   | x     |              |              |                |              | “Finding [time] in my schedule with work.” (Postpartum) “There is really no mental health help, like on the weekends or late in the afternoon when I have time to do these things.” (Postpartum) |
| Knowledge (providers)        | x     | x            | x            |                |              | “Just knowing it is an issue and knowing how severe it can be. And then, understanding how to screen and what to do with positive screens.” (Peds) |
| Social - Interpersonal       |       |              |              |                |              |                                                                                               |
| Patient/provider communication| x     | x            |              |                |              | “A lot of patients don’t have continuous cell phone service or have limited data plans...that’s really an issue and they will tell us about that.” (FM) |
| Social support               | x     | x            | x            | x              |              | “There’s a definite reluctance from the moms themselves who just don’t want to go there. Or from their family members who don’t think it is a big deal.” (Peds) “What I hear from my patients is that they feel alone. They feel like they are the only ones going through things.” (FM) |
| Social - Community           |       |              |              |                |              |                                                                                               |
| Stigma                       | x     | x            | x            | x              |              | “I feel that there’s still this stigma of depression/anxiety. Not being terrible happy about being pregnant...You’re still not allowed to not be happy that you’re pregnant,” (OB) |
| Collaboration among providers | x     | x            |              |                |              | “There needs to be more networking events. There needs to be more just opportunity to come together and talk about what we do.” (MHC) |
| Society - Organizational     |       |              |              |                |              |                                                                                               |
| Provider to provider         | x     | x            | x            | x              |              | “I would at least like some acknowledgement that the mom has made contact and that some sort of support is being given.” (Peds) “[There needs to be] better communication, increased communication between physician and mental health providers. Both ways, honestly.” (MHC) |
| communication                |       |              |              |                |              |                                                                                               |
| Provider shortage            | x     | x            | x            |                |              | “There’s just not enough providers. Not enough mental health providers in the city. Not in Sedgwick; I would say there are definitely not enough.” (MHC) |
| Society - Public Policy      |       |              |              |                |              |                                                                                               |
| Medicaid limitations         | x     | x            | x            | x              |              | “Women on Medicaid lose their Medicaid. That’s a big one. After six weeks.” (MHC) “It would be great for them to have access to healthcare and to be the healthiest they can be before pregnancy.” (Peds) |

*Women = pregnant and recently delivered; FM = Family Medicine; OB = Obstetricians; Peds = Pediatricians; MHC = mental health care
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continued.

Obstetrics Providers. Of the five obstetrics (OB) providers interviewed, four (80%) were practicing obstetrician-gynecologists, and one (20%) was a certified nurse midwife. All (100%; n = 5) were part of a group or hospital practice. Their length of practice in Sedgwick County ranged from 6 months to 36 years.

Regarding screening tools for PMADs, all (100%; n = 5) used the EPDS, and 20% (n = 1) also used the PHQ. Most (60%; n = 3) reported screening prenatally (at 28- or 36-weeks gestation) and at six weeks postpartum. One OB (20%) reported screening after delivery, prior to hospital discharge, and at two and six weeks postpartum, as well as administering the PHQ-2 for every patient (regardless of partum status) at every appointment. Those who screen positive on the PHQ-2 are screened further with the PHQ-9. The final provider (20%; n = 1) reported screening postpartum patients at every visit in the first year postpartum.

OB providers identified access to care barriers within all social-ecological levels. Formal training in PMADs was reported by 40% (n = 2) and varied levels of comfort were reported in prescribing medications. Transferring care between two members of the same healthcare team, known as a warm handoff, and integrated mental health services were perceived to improve access to care.

Regarding follow-up after a positive screening, OBs observed the challenges women who do not have a working telephone face in navigating the referral system. They also reported having a transient population can sometimes pose a barrier to follow-up.

Family Medicine Providers. All (100%; n = 4) family medicine (FM) providers were physicians and belonged to large group practices. Most (75%; n = 3) obtained additional certification beyond their family medicine residency; specifically, in maternal child health (50%; n = 2) or obstetrics (25%; n = 1). Length of time practicing in Sedgwick County ranged from 1.5 to 9 years. All FM providers (100%; n = 4) reported screening with a version of the PHQ, 75% (n = 3) screen at every visit and 25% (n = 1) screen at six weeks postpartum and the infant's one month well-check. If patients express additional concerns, one provider (25%) reported utilizing the Generalized Anxiety Disorder (GAD) screen and the Anxiety Symptoms Questionnaire (ASQ). Frustration was expressed related to screening. One stated, “Sometimes I don’t want to screen” due to challenges connecting women to services.

The FM provider group reported barriers across all levels of the social-ecological model and identified warm handoffs and integrated mental health services as improving access to care. FM providers identified preconception counseling on the use of psychotropic medication during pregnancy as a positive factor in addressing PMADs.

Pediatric Providers. All (100%; n = 6) pediatric providers interviewed were physicians in group practices, ranging from small (17%; n = 1) to large (67%; n = 4); one (17%; n = 1) group practice size was unspecified. Years practicing in Sedgwick County ranged from 6 to 30. PMAD screening practices were focused on mothers of patients; 50% (n = 3) used the EPDS at varying intervals, including one, two, four, and six months postpartum, and unspecified time periods; 33% (n = 2) utilized a single question which was built into the electronic medical record (EMR) at two weeks and two months postpartum; and 16% (n = 1) used the PHQ for every patient in their predominantly adolescent practice, regardless of partum status. One (n = 16%) provider reported screening fathers as well.

As with the other PCPs, pediatricians identified barriers across all socio-ecological model levels. However, pediatric providers emphasized the importance of communication between providers, especially in cases where the mother’s mental health status might have adverse effects on her ability to care for her child. Some pediatric providers (66%; n = 4) reported notifying the mother’s PCP of a positive screen in addition to offering a list of resources. Warm handoffs and integrated mental health services remained ways to improve access.

Perinatal Mental Health Care Providers. The Mental Health Care (MHC) provider group (n = 6) included two clinical psychologists (33%) specializing in eating disorders, generalized anxiety, depression, and perinatal mental health, two (33%) licensed clinical social workers (one of whom specializes in trauma), one (16%) physician certified in general psychiatry, and one (16%) licensed master social worker specializing in perinatal mental health. Length of time practicing in Sedgwick County ranged from 1 month to 16 years. Most (66%; n = 4) were part of a large group practice, with 33% (n = 2) in small group practices. Regarding PMAD screening practices, 33% (n = 2) did not use a screening tool. The remaining 67% (n = 4) had varied practices: one used the EPDS; one used the EPDS and the Perinatal & Anxiety Screening Scale (PASS); one used the PHQ in conjunction with the GAD; and one used a specialized postpartum intake tool from Postpartum Support International (PSI).

Most (83%; n = 5) received referrals for PMAD treatment from OBs, other PCPs, hospitals, or self-referrals. All but one (83%; n = 5) MHC provider accepted Medicaid payments. One (n = 16%) mentioned that Medicaid patients were often not aware of the full scope of services that their insurance covers.

Consistent with PCPs, MHC providers identified access to care barriers across all levels of the socio-ecological model. All MHC providers (100%; n = 6) described processes or policies to address individual level barriers, such as letting children (especially infants) come to the appointment and providing space to breastfeed, and one offered in-home services. This group also echoed the need for warm handoffs and integrated mental health services, and identified home visitation as an avenue to improve access to services.

In addition, several talked specifically about the impact of birth trauma on maternal mental health. One also addressed the impact on PCPs, stating, “I think that if we could wrap around what we consider perinatal mental health is not just something that affects the mom. But partner and then extended family and then obviously the medical provider is part of that picture as well.”
The purpose of this qualitative study was to identify the knowledge of and barriers to perinatal mental health services based on the perspectives of low-income pregnant or postpartum women, PCPs, and MHC providers. It was imperative to identify key drivers to accessing mental health services that can be leveraged for successful interventions to reduce negative birth outcomes.

**Screening and Care Practices.** Routine screening is recommended by ACOG, AAFP, and AAP as only 18 - 25% of PMADs (specifically postpartum depression and postpartum psychosis) are diagnosed without screening. All interviewed PCP and MHC providers reported routinely screening women for mental health disorders in the perinatal period. However, a variety of protocols and tools were reported, which was reflected by the varied screening experiences reported by women. This variability may be a barrier to identifying women who have or are at risk for PMADs and is not unique to the community. A survey of Washington Academy of Family Physicians members found that while 70% (n = 254) always or often screened for postpartum depression, only 22% used a validated screening tool. In the United Kingdom, PCPs perceived 7% of 176 women to be depressed, but EPDS scores were abnormal for 17%. ACOG recommends screening for PMADs at least once during the perinatal period using a tool that has been validated for perinatal use, specifically EPDS, PHQ-9, Beck Depression Inventory, or Postpartum Depression Screening Scale. ACOG further recommends having systems in place to ensure follow-up care when a diagnosis is made.

Providers should avoid screening due to perceived patient concerns, as women reported being open to PMAD screening, and those who had been screened reported providing honest responses. In addition, women reported feeling as though mental health concerns were brushed aside if the provider failed to raise the subject, and lack of feedback was interpreted as a negative screening result, which may not have been accurate. Educational interventions with providers, changes in EMRs, and use of standardized patient exercises regarding PMAD screening have improved screening adherence and referral/treatment for women who screened positive.

Management practices of women who screened positive varied widely, with OB and FM providers more likely to manage, pediatric providers more likely to refer, and MHC providers’ management depending on patient needs and expertise of the provider. Yet, Kansas Perinatal Risk Assessment and Monitoring (PRAMS) data suggested 17% of mothers who thought they needed treatment for depression did not receive it, indicating barriers to perinatal health care remained.

**Barriers to Access to Care.** Barriers to perinatal mental health care access were identified at all levels of the social-ecological model. However, pregnant and postpartum women identified barriers only at the individual level. Individual level barriers, including cost or lack of insurance and transportation, were consistent across all respondent groups. These were expected as Sedgwick County has a very limited public transportation system and Kansas does not have Medicaid expansion. In contrast, half of women reported scheduling as a barrier, while no PCPs or MHC providers identified this barrier. Scheduling issues included conflict with work, lack of weekend and evening appointments, and long wait times to get an appointment. These barriers could be mitigated by increasing flexibility in scheduling, such as expanding or adjusting office hours to accommodate drop-in appointments and include more evenings and weekends. Another individual level barrier cited by women (25%; n = 3) was a lack of knowledge of existing perinatal mental health services. Based on strategies reported by participants, MHC providers should partner with trusted community programs to promote their services and make sure organizations are optimized to be found in internet searches. Finally, childcare was a barrier to attending appointments and appointments were more difficult to navigate if a young child was present. Findings were consistent with PRAMS data, where over 50% of respondents did not get help for depression due to cost and childcare concerns. However, all MHC providers reported allowing children when needed. Promotion of such accommodations may increase women’s willingness to engage in services.

An interpersonal level barrier identified by all provider groups was lack of social support from the woman’s family and friends. While not identified as a barrier, several women described the importance of family support in navigating mental health issues. An inverse relationship has been reported between social support levels and both perinatal depression screening scores and postpartum depression diagnosis. Due to the significant impact, providers should consider the following strategies to increase social support for women in the perinatal period:

1. Provide education to the woman’s partner on how to support her, including communication and practical support strategies.
2. Connect women with other pregnant women and expectant couples.
3. Provide adequate information on pregnancy, childbirth, and parenting, that is consistent and accurate.

At the organizational level, lack of communication between providers regarding patients was identified across all provider groups. The majority (> 70%) of pediatricians, OB providers, and FM providers expressed a desire for feedback and closed-loop communication from MHC providers. However, MHC providers reported being intentional about providing feedback to PCPs and reported PCPs could be more effective following up on patients receiving perinatal mental health services, indicating there are likely significant communication gaps between medical and mental health providers. In general, closing the referral loop is a complex problem in health systems. Feedback regarding the outcome of a referral is important for patient safety because patients are medically vulnerable in the period of transition between providers; longer wait times can lead patients to forget about the referral appointment, seek out-of-network specialists, or forgo the referral due to perceived resolution of clinical concern. Integrated behavioral health services and developing systems to support communication between providers better should be prioritized to enhance patient outcomes.
Stigma was a theme at the community level identified by all provider groups. No women cited this barrier, despite public stigma being a well-identified obstacle to seeking mental health services in the U.S.\textsuperscript{1,2, 5, 21} Providers may address stigma through use of standardized screening questions, avoiding language that creates an “us” and “them” division, and paying adequate attention to mental health needs of perinatal women.\textsuperscript{32}

At the public policy level, most providers (71\%) identified being underinsured (i.e., being on Medicaid) as a barrier. For insurance purposes, postpartum depression belongs to the broader category of mental illness and many insurance companies do not cover mental illness. When coverage is provided, it is often below other categories of illness.\textsuperscript{33} ACOG supports the expansion of pregnancy-related Medicaid coverage to one-year postpartum and provides tools for advocacy at the state level.\textsuperscript{34} Even with Medicaid expansion, not having an adequate number of trained providers to support mental health in the perinatal period will lead to more demands on the limited providers comfortable to provide care in this area.

A major strength of this study was the use of triangulation between participant cohorts and the inclusion of researchers and community partners in the review and interpretation of the data.\textsuperscript{16} Limitations are also present. Selection bias\textsuperscript{35} was possible, especially among the pregnant and postpartum women groups, which may have excluded women who were uncomfortable discussing perinatal mental health. Further, while this study focused on physicians in the clinical setting, often nurses and social workers facilitate mental health screening and referral. As such, future research should include these critical groups in assessment of processes and barriers. Findings of stigma being a barrier within the PCP and MHC provider groups but not in the women group may be a result of this selection bias. Recall bias also may have influenced responses. Finally, though the focus of the study was on identifying barriers, many participants shared factors that improved access to perinatal mental healthcare services. Further study of facilitators (i.e., social support) may shed additional light on strategies to improve access.

CONCLUSIONS

Inadequate access to perinatal mental health care can lead to untreated PMADs, which may contribute to poor birth outcomes. This study identified barriers to accessing care from the perspectives of three unique populations and stratified these barriers across the social-ecological model. Interviews identified areas for improvement, including expanding scheduling options, standardizing screening practices to align with advisory organization guidelines, and advocating for legislation to expand Medicaid. Identification of perceived barriers can inform action steps, which may aid in the development of interventions to improve access to perinatal mental health care. Further, engaging community members in identifying and understanding barriers at various social-ecological levels enhances engagement in identifying and implementing interventions to address these barriers.

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