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Research Article

Holding the Whole Person: Perinatal Women's Perspectives on the Integrated Infant Mental Health Care Model in Obstetrical Care during COVID-19 Pandemic

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Abstract

For many women, the perinatal experience can be a tumultuous period of rapid change and impactful personal, family, and work life events that put them at risk for poor mental health and other adverse outcomes. This is of particular concern for Black and Indigenous people and People of Color (BIPOC) who experience a disproportionate burden of adverse maternal health outcomes. These outcomes are exacerbated by racial trauma, economic disadvantage, and the recent COVID-19 & social justice double pandemic, which manifests as the current maternal health crisis. Heightened awareness amplifies the call for accessible, reverent care that centers mothers and their infants' comprehensive physical and mental health needs and offers them complete and seamless support. Moreover, conditions crystalized during the COVID-19 public health crisis reinforce the need for trusted, reliable, community-informed psychosocial support. The integrated mental health approach may address the identified needs and foster integral positive exchange. This study presents a qualitative evaluation of a comprehensive integrated mental health intervention delivered in prenatal care in an urban setting serving primarily BIPOC women. Mothers were asked to share impressions and ideas on obstetrical and integrated mental health care received in context of current personal, social, and environmental circumstances. Insights reflect that this behavioral health care can constitute vital positive intergenerational support and help to identify key components for culturally responsive perinatal mental health care.

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Introduction

The perinatal period, which spans from pregnancy through the child's first year of life, is a time marked by rapid change and increased vulnerability to mental health concerns. Women are particularly vulnerable to mood and anxiety disorders during the perinatal period, particularly when they have a history of trauma [1, 2]. One in 5 women experiences depression within the perinatal period, with 17% having clinical symptoms during pregnancy, and 13% experiencing depression in the first year postpartum [3]. Rates of perinatal depression are typically higher among women who are American Indian/Alaskan Native, Asian/Pacific Islander, and Black [4, 5], and among women who are poor [6]. Peripartum anxiety is also remarkably common, with an estimated 20% of women in a typical sample meeting diagnostic criteria for at least one anxiety disorder [7]. Risk for anxiety is further increased among women with limited social support [8] or economic disadvantage [9]. The perinatal period is also a time of elevated risk for intimate partner violence (IPV), with clinic-based samples reporting estimates of perinatal intimate partner violence as high as 16.4% for physical IPV and 73.0% for psychological IPV [10; 11]. A recent review suggests that rates of PTSD are about 3.3% during pregnancy and 4.0% in the postpartum period among community samples, but in high-risk women who are considered uniquely susceptible to physical or mental health complications, these rates increase to 18.9% and 18.5%, respectively [12]. These high rates of mental health risk across the perinatal period urge for greater attention to mental health as part of routine pregnancy and postpartum care. Socially disadvantaged women, particularly Black and Indigenous people and People of Color (BIPOC) experience a disproportionate burden of adverse maternal health outcomes. These outcomes are exacerbated by racial trauma, economic disadvantage, and the recent COVID-19 & social justice double pandemic, which manifests as the current maternal health crisis [13, 14]. Maternal mortality rates are highest in the U.S. relative to all developed countries and are rising faster than any other nation [15; 16]. Rates among BIPOC mothers are twice those of Non-Hispanic Whites, reflecting persistent racial disparity [15, 16]. In many urban communities where the predominant population falls into the BIPOC group, maternal perinatal health disparities are reaching crisis levels. Addressing these complex crises through comprehensive perinatal health care models that increase access to mental health services, with cultural humility and through an equity lens, is acutely paramount to addressing the current maternal health crisis in the US. Accessibility and cultural reverence are key prerequisites for such a perinatal health care model. Many barriers impede patients' access to quality mental health care, including transportation, childcare, limited clinic hours, waitlists, fear of racial bias, and stigma. While perinatal women have regular obstetric appointments at which mental health screening and care might occur, obstetricians typically have limited time in clinic and must focus their attention on physical health concerns. The unprecedented COVID-19 pandemic shutdowns and skyrocketing COVID-19 infection rates have further limited access, intensifying the resultant maternal health crisis [17]. Integrated mental health care is one possible solution to this problem. Integrated clinics aim to address the often interconnected medical, psychological, and social needs of patients in a single visit at a single location by embedding behavioral health consultants into medical clinics. Integrated care has been rapidly increasing in recent years, with a growing evidence base [18]. Prior work has highlighted the utility and effectiveness of integrated mental health care for perinatal depression, both in pediatric primary care [19] and obstetric settings [20]. This suggests the value in implementing integrated mental health care for broad perinatal populations. Further, it is vital to consider perinatal women's own perspectives in the efficacy and utility of such programs. In other words, beyond quantitative outcomes of these programs, we must hear perinatal women's voices as they share their firsthand experiences with integrated mental health services in obstetrical practices. Such first- person accounts on utility of perinatal mental health programs enrich our understanding of what is perceived as helpful and well-targeted to patients' individual needs and circumstances. Moreover, while perinatal mental health challenges are tasking on their own, this time period is even more complex and impactful because maternal mental illness not only adversely impacts the mother but also her child. Fetal exposure to high levels of stress during the prenatal period has been associated with preterm birth and low birth weight, which predicts poor health outcomes, such as increased risk for cognitive, behavioral, and emotional problems (Beijers et al., 2014). Even when controlling for risk factors (like low birth rate), maternal stress continues to be associated with increased risk of childhood attention deficit hyperactivity/impulsivity disorder (Van den Bergh, Marcoen, 2004) and conduct problems (MacKinnon et al., 2018). It is critical to mitigate the potential impact of untreated maternal mental illness on the developing child. Pregnancy and the first years of life are a critical period in child development; this stage of life lays the foundation for their continued development and wellbeing as they grow older. Maternal anxiety, depression, stress, and PTSD are correlated with a variety of negative fetal and infant outcomes, including premature birth and low birth weight [21, 22]. Maternal anxiety, depression, stress, and PTSD are also associated with difficult infant temperament, which results in increased irritability, sleep problems, and diminished facial expressiveness on the part of the mother [23, 24], challenges that may interfere with mother-infant interactions, jeopardize the mother's bond, and impair a sense of competence as a mother [23, 24]. Ultimately, infants of mothers with untreated depression or anxiety are at greater risk of developing insecure attachments [25] and subsequent psychopathology [26, 27]. Thus, comprehensive integrated mental health care must not attend to the mother's mental health alone, but must also provide equal attention to the child, the emerging mother-infant bond, and the relational health between mother and child. Given the necessity to consider both mothers' and infants' mental wellness concurrently, and to also keep the quality of the emerging relationship in mind, an infant mental health approach is particularly helpful [28]. The infant mental health approach is uniquely focused on the parent-child dyad, as opposed to other mental health approaches that target one specific individual in treatment. The health and wellbeing of mothers and their growing infants are integrally intertwined, and a dyadic clinical approach that considers both members of the dyad, their ecological context, and the intergenerational transmission of risk and resilience is especially appropriate in the peripartum period. Historically, the infant mental health (IMH) therapy approach is tailored toward supporting the caregiver-child dyad throughout pregnancy and the first 3 years of a child's life through a relationship-focused and needs-based intervention that is delivered as a home-based intervention [28]. IMH clinicians traditionally visit mothers in their homes on a weekly basis to deliver a multimodal, needs-based intervention. Interventions range from addressing basic needs and connecting parents to appropriate resources, to providing developmental guidance and emotional support, to implementing relational psychotherapy that promotes sensitive and responsive caregiving to stimulate parents' reflective capacity in order to support the dyad's relational health. Delivery of the IMH model in other settings than home-visiting, for example, integration into prenatal medical clinics is sparse [29, 30, 31], yet could be a powerful access point. IMH clinicians' specialized training and knowledge in trauma-informed care, social determinants of health, and the transition to parenthood uniquely positions them to meet the social and emotional needs of perinatal women, with critical attention to supporting the needs of BIPOC, whose voices and needs as marginalized persons have been historically unmet in the U.S. This study addresses such a novel application of the IMH model in a medical setting. The study served as a qualitative evaluation of the Integrated Infant Mental Health Care Model in Obstetrical Care ("integrated IMH") and was delivered in the Metro Detroit area of Michigan which serves primarily BIPOC women. In this model, IMH-trained Behavioral Health Consultants (IMH-BHCs) were embedded into a set of prenatal clinics. The embedded IMH-BHCs offered assessments, brief therapeutic interventions, referrals to other resources, and represented a point of entry into IMH home visiting services. In this paper, we present findings from the qualitative narrative data collection with twenty perinatal women, the majority of whom were BIPOC and socially disadvantaged. Of our cohort, 75% (n=15) encountered prenatal care in clinics with the embedded IMH-BHC model, while 25% (n=5) were treated in clinics without such model integration. The goal of the study was to elevate the voices of these women through sharing their lived experiences in the pregnancy and postpartum period amidst the tumultuous period of the COVID-19 public health crisis and social justice awakening, to gather their perspectives in the interviews about the prenatal care they received or wished for, and to reflect on their experiences with the IMH-BHC program.

Materials and Methods

This study represents a retrospective, qualitative study of perinatal women's perceptions and experiences with integrated IMH offered in prenatal care during the COVID-19 pandemic and social justice awakening. This qualitative study is part of a larger evaluation (parent study) on the role of integrated infant mental health services in addressing women's mental health needs during prenatal care. Specifically, researchers sought to explore the benefits of embedding an IMH-BHC in obstetrical clinics in the Metro Detroit area, a dense, urban-suburban, predominantly Black region of the Midwestern U.S. Data collection for the broader evaluation (total N=158 women) began in 2018 and concluded in 2021. While all of the babies were born prior to the onset of the COVID-19 pandemic, and most quantitative data was collected prior to the pandemic, the qualitative interviews were conducted between October 2020 and September 2021 at the height of the COVID-19 crisis and the widespread social justice movement triggered by George Floyd's murder in May of 2020. Interviews were conducted remotely (by phone) with a subsample of twenty women selected for elevated risk of socioeconomic disadvantage. Qualitative, semi-structured interviews were used because they are considered an effective method for gathering personal perceptions and experiences [32]. This method also supports this study's intention to center and uplift the voices of women who predominantly hail from marginalized communities where BIPOC experiences have not been readily seen nor attended to (Clark et al., 2022).

Brief summary of parent study

A total of ten obstetrics clinics in Metro Detroit agreed to be part of this pragmatic evaluative study. Seven clinics adopted (or previously adopted, prior to the start of the study) the embedded IMH-BHCs model. An IMH-BHC from a community social service agency was embedded in the clinic free of charge. The remaining three clinics served as comparison sites and delivered their usual routine prenatal care (i.e. - more limited access to mental health care as a result of limited direct access to social work and predominantly phone-based referrals). The primary patient outcomes were benefits to women's mental health, pregnancy outcomes, and level of access to needed resources. The study also aimed to examine whether any positive outcomes would be sustained beyond the pregnancy period into 12 months postpartum. The parent study enrolled a total of 158 pregnant women in early-to mid-pregnancy (prior to 28 weeks' gestation) and followed them for up to one year postpartum. Ninety women (57%) were recruited from clinics with the IMH-BHC model, and sixty-eight women (43%) were recruited from comparison clinics. Participants were eligible if they were ≤28 weeks' gestation at the time of recruitment, older than 15 years of age, Medicaid eligible, and residing in Metro Detroit. Participants were administered a series of self-report surveys at two points during pregnancy (≤28 weeks and 28-42 weeks gestation, respectively) and at three points postpartum (at 6 weeks, 6 months, and 12 months postpartum). Survey frequency was selected to optimally capture physical and emotional functioning and risk and resilience factors. Women received monetary incentives (between $25-$35) for completing each wave of surveys. Findings from the parent study on maternal mental health outcomes are currently under review.

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Design of qualitative sub study

Participants (n=20) for the qualitative sub-study were over selected from the larger sample (n=158) for risk status. Risk status was determined based on responses to baseline surveys for presence of past and current adversity (childhood adversity, current life stress, current depression and/or anxiety), and for absence of protective factors (poor quality of life, lack of social support). A detailed description of the surveys is available in the measures section. Due to this recruitment strategy of oversampling for risk, participants in the qualitative subsample (n=20) comprised a higher risk group of women than the overall sample (n=158) (p=.001). We intentionally oversampled for risk status to better understand the model's benefit for women with the greatest risk. Fifteen of our participants (75%) experienced care at an integrated IMH-BHC site, and five (25%) received care at comparison clinics without the IMH-BHC model. Participants received a $25 gift card as an incentive for participation in the qualitative interview conducted at 12 months postpartum. The interviews were semi-structured, following a set of guiding questions. Interviews lasted an average of 34 minutes (range 16-64 minutes) and were digitally recorded. Interviews were transcribed verbatim by a professional transcriptionist and were thematically coded and analyzed using a general inductive approach [33] and a grounded theory framework (Glaser, Strauss, 1967). Both the parent study as well as qualitative sub-study were approved by the Institutional Review Board (IRB) at the University of Michigan, and informed consent was obtained for all participants.

Participant demographics

Participants (N=20) were aged 18-42 years (mean=28). Interview participants were a racially and ethnically diverse group of women, including 9 women who self-identified as Black (9, 45%), 6 women who self-identified as Non-Hispanic White (6, 30%), and 5 women who self-identified as multi-Racial or another race(s) (5, 25%). One participant self-identified as Native American/Alaska Native and was included in this category. Mothers' mean annual household income was $21,500, with an average of 13 years of educational attainment. Most women reported having a partner or being married (12, 60%). Parity was measured at study baseline (1st-2nd trimester). Fourteen participants had children (mean=1 child) and six participants were pregnant again. Of the fifteen women who received care at the IMH-BHC site, a majority (8, 53%) self-identified as Black Non-Hispanic, two (13%) self-identified as White-Hispanic, two (13%) self-identified as White Non-Hispanic, two (13%) self-identified as Multi-racial Hispanic, and one (7%) self-identified as multi-racial. Respondents from the comparison sites (n=5) self-identified as two White Non-Hispanic women, three multi-racial or one Black woman. Average income and education were significantly lower among the women from the IMH-BHC sites compared to women from the comparison sites ($19.6k vs $27k and 12.3 vs 14.2 years, respectively). Table 1 summarizes participant demographic characteristics, stratified by site of prenatal care (IMH-BHC versus comparison).

Measures

Surveys: Demographics included mother's race/ethnicity, age, highest education level attained, and annual household income for the year prior to the study. Single marital status was used as a risk indicator. Adverse Childhood Experiences (ACE; Felitti et al., 1998) were assessed on a 10-item questionnaire that probed for traumatic or adverse events (i.e., childhood abuse, neglect, or household instability) occurring before the age of 18. Each affirmative answer was given 1 point, with total scores ranging from 0-10. A score > 4 indicated risk status for inclusion in the sub-study. Current life stressors during the perinatal period were measured with the Life Stressors Checklist [34]. This measure was revised by the study team to select 8 of the original 30 items; thus, the possible range for this measure was 0-8. Examples of distressful events included: a robbery, mugging, or physical attack, or incarceration of the participant or their family member(s). A score of > 3 was used as a cutoff to indicate a risk status for life stressors. The Patient Health Questionnaire – 9-Items (PHQ-9; Kroenke, Spitzer, & Williams, 2001) self-report measure screened for symptoms of depression in the last two weeks. Participants rated items on a Likert scale ("Never" to "Nearly every day," or 0 to 3), with total scores ranging from 0-27. A score > 10 suggested symptoms of moderate to severe clinical depression and indicated adequate risk status for inclusion. Women rated anxiety on the Generalized Anxiety Disorder Scale – 7-Items (GAD-7; Spitzer et al., 2006) self-report measure. Participants rated each item on a Likert scale ("Never" to "Nearly every day," or 0 to 3), and total scores ranged from 0 to 21. A score > 10 represented symptoms of moderate to severe clinical anxiety and indicated adequate risk status for inclusion. The Protective Factors Survey (PFS; 35, 36] measured four domains: family functioning/resilience, social support, concrete support, and nurturing and attachment. 11 items were self-rated by the participant on a scale from 1 to 7 ("Never" to "Always"), and total scores were computed as a sum for a total possible score ranging from 11 to 77, where higher scores indicate more protective factors. A score of < 45 was used as a cutoff indicating a risk status for quality of life. Finally, the 9-item Quality of Life Scale (QOL; 37, 38] assessed participant satisfaction with various areas of their life, including health, work, relationships, leisure, home, and community. Participants rated their satisfaction on a scale from 1 to 5 ("Very dissatisfied" to "Very satisfied") for a total possible score ranging from 9 to 45, where higher scores indicated higher life satisfaction. A score of < 27 was used as a cutoff indicating a risk status for quality of life. Table 1 presents participants' mean scores on all measures, stratified by site of prenatal care (IMH-BHC versus comparison).

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Table 1: Participant Demographics (N=20)

	Total sample (N=20)	IMH BHC site (n=15)	Comparison site (n=5)
	Mean (SD) / % (n)		
Age	28.1 (7.0)	28.2 (7.7)	27.6 (5.0)
Race: Black (B)	40.0 (8)	46.7 (7)	20.0 (1)
White (W)	30.0 (6)	26.7 (4)	40.0 (2)
Multi-Racial (M)/Other	30.0 (6)	26.7 (4)	40.0 (2)
Ethnicity: Hispanic (B, W, M)	30.0 (6)	33.3 (5)	20.0 (1)
Annual Household Income ($)	21500.0 (16311.1)	19666.7 (18073.9)	27000.0 (8366.6)
Education (Years)	12.80 (1.6)	12.3 (1.5)	14.2 (1.1)
Married/Partnered	60.0 (12)	60.0 (9)	60.0 (3)
Number of Children	1.0 (.8)	1.0 (.9)	1.0 (.7)
Adverse Childhood Experiences, Total	6.0 (2.9)	6.3 (2.9)	5.2 (3.1)
Life Stressors Checklist, Total	4.2 (1.6)	4.0 (1.5)	4.8 (1.9)
Patient Health Questionnaire – 9-Item, Total	9.0 (3.7)	9.5 (3.5)	7.4 (4.5)
Generalized Anxiety Disorder – 9-Item, Total	9.0 (4.5)	9.7 (4.4)	7 (4.5)
Protective Factors Survey, Total	54.5 (13.1)	51.9 (13.8)	62.2 (7.6)
Quality of Life Index, Total	30.8 (5.5)	30.3 (5.7)	32.2 (5.1)
Total Risk Score	2.9 (1.8)	3.2 (1.8)	1.8 (1.6)

Note: Total risk score was derived as sum of a yes (1)/no (0) on seven risk indicators (single; ACES>4; PHQ-9>10; GAD-7>10; PFS <44; LSC>3; QOL< 27), range 0-7.

Qualitative Interview: At 12 months postpartum, participants underwent a semi-structured interview following an interview guide that was developed by a multidisciplinary research team of social scientists and mental health experts who specialize in infant mental, pediatric psychology, perinatal psychiatry, and medical sociology. Development of the interview guide was informed by social ecological framework, as it considers interpersonal, community, and societal variables to comprehensively understand the human experience (Bronfenbrenner, 1977). Participants were interviewed via telephone and asked about their pregnancy experiences, social support both during and after pregnancy, catalysts and barriers to positive perinatal experiences related to care, and suggestions to improve perinatal mental health care. Table 2 displays more detailed interview questions.

Table 2: Qualitative Interview Guide

1. Please tell us about your most recent pregnancy. What were your biggest challenges? Joys?
2. What kind of support did you receive at your clinic? Did you meet a behavioral health consultant (BHC)?
3. What was it like to work w/ this person?

a. How often did you meet?

b. Did you feel supported? How? (What was the nature of that support?)

c. Did you discuss: emotional wellbeing, feelings about the baby, challenging issues in family (e.g. violence, housing, food, life stress), your family of origin? Something else?

d. Did you get any referrals, including home visiting?

e. If yes infant mental health home visit (IMH-HV) - what was that like?

f. How long were you in IMH HV? How did you get connected?

4. If you would go through pregnancy/postpartum again, in an ideal world, what would you want?
5. Would you recommend the services you received to a friend?

Qualitative Coding and Thematic Analysis

Interview responses were professionally transcribed, coded, and thematically analyzed. All interviews were read and coded and discussed by at least two members of the research team, including one who was more experienced (either the first or second author of this paper, who both hold PhDs in Sociology), and at least one research assistant (an undergraduate work-study student or recent graduate) to help inform development of the code book. Codes were determined using constant comparative strategy as part of Classic Analysis technique (Krueger, Casey 2000) for each interview. Salient themes were decided based on codes' frequency, extensiveness, intensity, specificity, and perceived importance by participants. Interpretation of results were analyzed using standpoint theoretical framework [40] and patient-centered care framework [41], which posits that we

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must make participants the “subject” of study to focus on their experiences in the context of the world around them, rather than making them the “object” of study and neglecting to understand the relationship between a person’s everyday world and the organizing forces surrounding it. The result section presents findings from the thematic analysis organized by saliency and inductive line of questioning, as designed to (1) learn about women’s general experiences during pregnancy and postpartum (taking into account the sociohistorical context of the time when interviews were conducted), (2) understand perinatal experiences related to obstetrical care, especially the IMH-BHC cohort, and (3) solicit women’s suggestions to improve perinatal mental health care.

Results

Our analysis provides insight into mothers’ pregnancy experiences, their perceptions of obstetrical and behavioral health care received during the COVID-19 pandemic, and whether care was supportive or unsupportive to their personal circumstances of poverty, physical and mental health challenges, variable or biased healthcare treatment, and inflexible work-life conditions. Below, we discuss major themes that surfaced.

General experiences during pregnancy and postpartum

The interview started purposefully with an open-ended question (“Please tell us about your most recent pregnancy. What were your biggest challenges? Joys?”) to put the mother at ease and open the flow of free association and memory, reminiscing about the most recent pregnancy, which was at this point many months in the past. Women welcomed this open-ended introductory question and were vocal about their experiences of physical and mental health issues, the COVID pandemic, and societal circumstances at the time of their pregnancy. Participating women described a mixture of positive and negative pregnancy experiences. More than half of all respondents (12) described pregnancy as a difficult, sometimes life-threatening physical or mental health experience that was shaped by fears and angst around the competing life demands of employment, unsupportive family, and economic uncertainty. Participants commonly described traumatic childhoods, current intergenerational turmoil, inflexible/stressful work environments, unstable/limited/unavailable partner support, and lack of monetary and other resources as contributing factors to the stress of pregnancy and early parenthood. The COVID-19 public health crisis intensified pregnancy and parenthood challenges. Overall, participants who had been recruited from the IMH-BHC clinic were far more likely to report pandemic-related adverse impacts. Six of the 15 IMH-BHC clinic respondents described a multitude of fears and problems that they specifically associated with the pandemic. Participants described, for example, a litany of negative paid-work experiences, such as losing their job when their workplace closed, being required to work in conditions they perceived as COVID-unsafe and losing vital childcare due to facility closures. Multiple mothers with young children emotionally recounted feeling terrified to return to frontline work amidst the growing rates of COVID infection and death.

“I was terribly afraid of getting infected with COVID. I tried to tell him (employer) like 2 days before, I was like, look, I can’t come back into work because of…you know, people are getting sick. My grandma and my mom watch my son while I’m working, like, I can’t infect them, I can’t do it, you know, I’m too scared that that could happen, and my grandma could die with it, and my boss didn’t really care…I was like crying to him, and he goes, it’s not…it’s not that bad”. – 28-year-old White-Hispanic BHC clinic patient

Almost half of the mothers reported feeling overwhelmed by stress, fear, and anxiety that manifested as worry for their own and their babies’ safety and health.

“I was, like, very stressed out … I didn’t want to hurt the baby and stuff. I barely made it through. We barely made it through. Somehow we did it after...oh, it was hard. I... a lot of times I said, do I put the baby in the crib and go outside and like, you know, keep him safe & then walk away for a few minutes in complete silence.” – 26-year-old White TAU clinic patient

Perinatal experiences related to obstetrical care, especially with IMH-BHCs, if available

Participants were asked about the quality and quantity of support they received during pregnancy, in particular from the IMH-BHC cohort at the sites with integrated behavioral health services. Interview discussions probed for support for challenging experiences and feelings associated with the baby, personal relationships, housing, food, and other potential life circumstances. The interviews from participants in this study revealed a nuanced picture of experiences with the healthcare system. Many mothers detailed positive, supportive care they had experienced from their healthcare providers, and elaborated with examples of times they had felt both emotionally and physically cared for with empathy and kindness.

“They listened to my worries, and they really got me good, when I went the first day. I saw a doctor there & he was telling me about the risk of the pregnancy & everything & then he (the doctor) was like, well, let me pray with ya.” –42-year-old Black BHC clinic patient

“The nurse…at the desk was an African American lady and so she—she kind of was hearing me and understood why I wanted to switch [providers]…” –28-year-old Multiracial TAU clinic patient

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"Her [referencing a nurse] touch. When I would walk through the door, she would always…she would embrace… like, it wasn't a full hug, but she would give me such a tight side hug that was so warm and so—so inviting and so motherly, and it just kind of calmed my spirit a bit because it made me feel like everything was going to be okay, yeah." – 33-year-old Multiracial BHC clinic patient

"…A lot of times we feel so overwhelmed with our own lives that we don't even know where to start to search for help, or even have the vulnerability to ask for help. So, I feel like the therapist or the counselor reaching out to me from the doctor's office was an enlightening moment for me, and that really helped me because I didn't know where to look and I didn't know where to ask for help at. …When she called me and she told me who she was, I was very relieved to know that that help was there for me if I needed it, and it was right in the office and it was accessible, and I did not have to look for it …it was a relief". – 33-year-old Multiracial BHC clinic patient

However, some women experienced their healthcare treatment as dismissive and disrespectful. They described feeling disregarded by their care providers. They felt their concerns about pain were not taken seriously, or that false assumptions were made about them.

"I cannot believe she was trying to rush me through all my questions. Like, okay, what's next? No. What do you mean, okay, what's next? I'm pregnant with a baby, & I'm scared, and when I asked her about my medications that I was on, she literally pulled out Google, & she Googled it, & I was like I could have freaking Googled it. I don't...wow. Okay. I just couldn't believe it" – 26-year-old White TAU clinic patient

"When they were doing the Cesarean, I could feel them cutting on me, and I was telling her, like, I can feel that. I'm like, I know that I'm supposed to feel pressure, but, no, I feel sharpness. She was like, 'oh, you're going to feel something', like, she was so dismissive" – 27-year-old Black TAU clinic patient

When specifically probed about experiences with the IMH-BHC, most described interactions with the BHC as positive. Mothers recalled interactions with the IMH-BHC as attentive and helpful, and they valued the connections with the BHCs as a source of tangible (e.g., diapers, wipes, baby care items) and emotional support. Mothers discussed that BHCs helped them feel more equipped to identify and talk about their struggles with depression, anxiety, and stress. Through interactions with the BHC, who is specially trained in infant mental health and intergenerational patterns impacting parenting, mothers were able to develop greater awareness of their personal experiences with intergenerational trauma. Mothers reflected how their own trauma experiences may impact their capacity to parent, and they shared their fears around passing on their trauma responses to their child(ren). Mothers shared that discussions with IMH-BHCs about how to manage overwhelming emotions and navigate family conflicts were particularly helpful. They also valued support in understanding their child(ren)'s developmental needs.

"Being a mom, becoming a mom, &, personally, like having a drug-addicted and alcoholic mother, abusive father, like the background that I came from, I know that I don't want to pass down generational trauma to my children, & that's very important to me, so just working really hard at that, & like knowing that I, you know, I am depressed, and I do have negative thoughts, and, you know, I've struggled with bulimia, just…and some other things, you know, and I don't want my daughters to see me…you know, she will see me in a bad light, you know, there will be things that she does see, right? But not those very severe generational traumas. I want to work on them, so that I don't pass them to my children, and in turn they don't pass them to theirs." – 24-year-old Multiracial Hispanic Partnered BHC clinic patient

However, a smaller fraction of respondents also expressed mixed feelings about BHC interactions. Four mothers (2 who also shared positive sentiments) conveyed feelings of hesitancy about interfacing with the BHC support. Mothers' reservations were grounded in issues of trust expressed as fear that getting help might result in judgement or punitive consequences. Mothers worried about who they could trust or be honest with as they may share very vulnerable feelings of self-blame, shame, and guilt. They also worried that disclosure to a social worker could result in being labeled a "bad mom" or having Child Protective Services involved. One mother with a history of substance abuse described her sentiment very poignantly:

"I was like worried that [the BHC] was just like trying to like surveillance me to make sure that I'm not like a horrible mom, or like CPS was going to be involved because of my situation; I just felt like I was putting myself and my kids at risk by just telling someone what was going on in my life. I didn't really talk about like super serious things with her because I was embarrassed and like I didn't really know how to trust her. ……[Later] I decided to be like fully honest with [BHC] about everything, and like once I was honest about certain things, I just realized like she wasn't going to be like mean, or like call anyone, and it just kind of made me realize, you know, that like, yeah, these things are kind of messed up, but like no one's out [there] to get me…." – 21-year-old Multiracial and Hispanic TAU clinic patient.

Women commented on how hard it was to establish a trusting relationship with their BHC, and how staff changes were perceived as major "letdowns". For example, a 24-year-old BHC clinic patient who self-identified as Multiracial shared that she felt she could trust the BHC until this clinician left the agency and stated "…it was really upsetting and really hard when the BHC quit". She went on in the interview to disclose that she did not want to try working with another BHC after this experience. Interestingly, several of the mothers interviewed from TAU clinics where BHCs were not embedded, did report favorable interaction with staff who functioned more or less as BHC-equivalents. At some TAU sites, there was limited access to medical social workers, and when mothers had the chance to communicate with them, it was perceived as supportive.

As mothers reflected on the supportive role of the BHCs, they also discussed how their own cultural norms and expectations shaped how they perceived the BHC. For mothers who self-identified as Black, Hispanic, or Multiracial, they perceived their cultural norms, values, and racialized societal expectations as barriers to interfacing with a BHC and felt that cultural norms and expectations stigmatized seeking support from a BHC. At the same time, these mothers also shared their desire for more mental health support, and some suggested that proximate, instantly accessible care, available at the moment of need may temper that hesitation.

"...I came from a Hispanic family, and we're not supposed to talk about our problems, or, you know, just fake-it-til-you-make-it kind of thing, and just keep it to yourself, or something." – 39-year-old Multiracial Hispanic BHC clinic patient.

"…Because today's society, and I mean I hate to go here, but I have to say it. When it comes to a Black woman, everyone expects the Black woman to be strong…When a Black woman does need help with anything, they're like, well, 'why didn't you do this first, so you don't have to do this?' … Then you don't have to ask for help. It's just like, can you help me? Yes, or no? I've gotten out of the habit of asking others for help unless I'm in a horrible, horrible situation…." – 25-year-old Black BHC clinic patient

"…. A lot of times in the Black community, therapy, and being emotionally vulnerable and weak is frowned upon. It honestly is. It's not okay to not be okay in the Black community, and it's very sad…just knowing that the service is available [right there] is such a big help and relief, because a lot of times we come in as single moms, and we might have other kids, and…of course, as adults and people we all have life, but sometimes you don't know the struggle it takes to even get to the doctors'." – 33 year old Black BHC clinic patient.

Suggested Ideal Care to improve perinatal mental health care

In the final part of the interview, women were invited to voice their personal wishes for an ideal mental health care approach across pregnancy and postpartum and were also asked to reflect whether the care they had received would be recommendable to other women they cared about (e.g., a friend).

Interestingly, most mothers felt that personal networks (such as family and friends) were a preferred source of social or emotional help during this time period. However, women also made clear that they were determined to do what they needed to improve their conditions, and thus suggested that when positive support was not available from family or personal networks, they would be interested in alternative ideal care to avoid social isolation, increase their sense of self, and provide support to their family. Mothers overwhelmingly expressed a clear desire for both physical and emotional health care that is respectful, transparent, honest, non-judgmental, attentive, culturally aware, and centered on mothers' and families' needs. Mothers very honestly spoke to what they wished for and how they wanted to be treated.

"Patience… especially when they [mothers] are exhausted, and they say they're exhausted, and understand that…try and understand that there's other people in the hospital giving birth, too, but sometimes there's one – one person's birth is easier than the next, and I think I need just them to sympathize with me, like, it's going to be okay. I want somebody who just isn't like basically telling me I'm being ridiculous." – 39-year-old Multiracial BHC clinic patient.

"General respect for your patients, to just be honest and have, like…I think everybody deserves to have, like, the benefit of the doubt in life." – 21-year-old Multiracial Hispanic TAU clinic patient.

While mothers commented that BHCs were at times able to fill in critical gaps in social support networks, offering both emotional and material support, they also expressed that at times BHCs seemed to be pulled in too many directions and had limited capacity or availability to respond to mother's needs in the moment. Even in the embedded BHC model, the clinician may have been absent or caring for another patient and thus unavailable. Furthermore, the service was provided only during or following a prenatal or postpartum visit only. Particularly in the postpartum period, when visit frequency to obstetric providers declines, BHC services were accessed less frequently. One mother specifically stated that she would have been receptive to BHC support and assistance during a moment of crisis that evolved during the clinic visit when her sense of urgency and anxiety was acute, but that care was not immediately available when she needed it. One mother shared:

"I don't necessarily recall anyone ever outright asking me like, what's going on with you? Are you okay? I don't necessarily recall anyone outright asking me, like, am I okay. So, yeah, no one outright asked me that, because I'm pretty sure if they did, I probably would have gave them a paragraph." – 25-year-old Black BHC clinic patient.

Discussion

Results from this study reinforce the importance of addressing the comprehensive health needs of perinatal persons from the subjective standpoint of their experiences in relation to the social world, social institutions, and the societal doctrines that govern their lives [40]. Additionally, the unique social and historical context of treatment endured by BIPOC perinatal persons necessitates further consideration and care. It is critical to focus on the full spectrum of "historical, sociocultural, environmental, and ideological" factors that shape individual health experience [13]. One goal of this study is to uplift and integrate affected mothers' voice and perspective as a noted strategic approach to effectively addressing racial disparities and as a measure of cultural humility, reproductive and research justice [16]. Their insights reveal distressing life circumstances juxtaposed with unsupportive healthcare systems, which was perceived as impactful to their perinatal experience. Participants' circumstances were further contextualized by the simultaneous deleterious effects of the COVID-19 public health crisis, societal racial discord, and exacerbated racial trauma [42, 43, 44, 45] which bolstered public awareness and revitalized societal efforts to remedy the unique personal, social and structural challenges faced by BIPOC [46].

Addressing complex social vulnerability factors through comprehensive (physical and mental) perinatal health care models is critically important as maternal mortality and morbidity rates rise, becoming the highest in the U.S. relative to all developed countries, rising faster than any other nation [15,16]. Treatment models must be grounded in an intersectional approach that considers the increased social disadvantages endured by marginalized mothers, which are a negative byproduct of racialized, gendered, social experiences characterized by the historical prevalence of psychosocial stress (14) that must be addressed as part of a multi-systems approach to supporting perinatal health [47].

Current research suggests community-based, culturally appropriate integrated care is a strategic equity approach for supporting the mental health needs of those who experience a higher prevalence of maternal mental health issues [48]. Moreover, appropriate care must be immediate, reachable, and entrenched in places and spaces where mothers are. Care providers may be remote in telehealth environment [49]. Participants' reflections on the positive perinatal impact of IMH in this study suggests the potential of models that effectively incorporate community proximity, cultural humility, and reverence in care and practice - especially during tumultuous social and economic periods, like the unprecedented syndemic which exacerbated inequities during the study [17] and brought unequal burden of mental health crisis onto Black community members [50].

In addition to mothers, our study holds implications for their children, among who a significant number experience a diagnosable behavior health disorder by age 18 [51]. Appropriate care or mothers during the perinatal and postnatal period could contribute to a reduction in childhood psychiatric disorders. Mothers in our study discussed experiencing challenges, some of which were life-threatening and stressful. These data illustrate the critical need for IMH-BHC care models that fully support expectant mothers and their children, especially those most likely to experience chronic daily stress. Ideally, this model of care should help reduce stress by making the developing fetus less susceptible to the altering effects of stress on brain development and future cognitive functioning [52]. Providing quality, person-centered social, emotional, and physical health care to mothers during pregnancy can mitigate future disease burden on their offspring, which has the potential to eliminate cycles of health inequities.

Strengths and limitations:

We acknowledge that our study was susceptible to limitations. Based on current study design, our output should be viewed with several limitations in mind. First, the research team is aware that because qualitative interviewing is collaboratively constructed by both the interviewer and the interviewee(s) and contextualized by the interview setting, bias may influence the selection and introduction of topics, sequence and content of the discussion, and collection and organization of data being generated [53]. This process, for example, could be affected by the tension that exists between building rapport and maintaining neutrality, ultimately resulting in bias in some form [54]. Secondly, telephone-based interview design limits the capacity to observe non-verbal communication, therefore reducing the opportunity for understanding full depth of human sentiments and perceptions. Third, there is inherent methodological limitation in collecting insight based on one-on-one interviews, particularly when exploring the rich complexity of personal life circumstances, such as perinatal health experiences. The authors acknowledge that while we have gained in-depth understanding from respondents, we also appreciate the multidimensional nature of these women's lives as part of multiple broader social groups, and we feel that even more could be learned from the comprehensive perspective of the family's experience of maternal health outcomes and impacts. Community-engaged perspective emphasizes mothers' health as a function of community and family health, which signals the need for a holistic, family-based approach to intervention design and development [55-61]. The ecological perspective puts mothers, and perhaps most importantly, family, at the center of public health research and practice. It positions them as the key link to larger programs and interventions. Family therefore is generally considered the first - and among the most important – subjects of health care. Policy acknowledges the family unit as an effective entry point and central focus in health promotion (Novilla et al., 2006). Our ideas in this respect were wholly focused on the commonplace family health research practice of perpetuating conceptions of women and mothers as gatekeepers of the family's health and therefore key decision-makers, as well as a critical target for community-engaged public health interventions (Zambrana et al., 2015). While a common and long-held belief, we recognize this does not accurately reflect the complex milieu of all modern families. Fourth and final, for people ensnared in chronic poverty with limited access to resources, it can be hard to envision what "ideal" care could or should look like. For example, if you don't know that routine mental health screenings, free formula, in-home doula support, or night nurses are options available to people of certain income and means, it may not occur to you to suggest these concepts. Some people are content with what they have merely because they do not know that it could be better. Interviewers used prompts, friendly conversation, rapport, and social cues to elicit and illuminate respondents' thoughts, perceptions, and attitudes toward this end. This assessment, however, remains limited by its design and encourages us to consider what is missing or what might have been learned within the context of including the voice of other familial stakeholders with critical interpersonal connections such as mothers' partners, grandparents, close friends, and others.

Conclusion

In a climate of intense social change, study outcomes demonstrate the increased value of integrating infant mental behavioral health as a model for comprehensive, holistic health care. Results from this study suggest that patients, particularly those who carry an undue burden of personal, social, and psychological life challenges may benefit from an integration of psychosocial and physical medical care support. Moreover, this integration should reflect a medical care environment that recognizes the value of a comprehensive approach to providing culturally reverent and responsive treatment, care, and support to new mothers and their infants.

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CRediT Authorship Contribution Statement

Angela Johnson: Project Administration, Formal Analysis, Data Curation, Formal Analysis, Writing original draft, Writing-review & editing. Charity Hoffman: Project Administration, Investigation, Data Curation, Formal Analysis, Writing-review & editing. Megan Julian: Writing-original draft, Writing-review & editing. Cierra Bengel: Investigation, Formal Analysis. Meriam Issa: Methodology, Formal Analysis, Writing-original draft. MacKenzie Kenneally: Formal Analysis, Writing-review & editing. Sharnita D. Harris: Writing-original draft, Writing-review and editing. Katherine Rosenblum: Supervision, Conceptualization, Methodology, Resources, Writing-review and editing, Funding Acquisition. Maria Muzik: Supervision, Conceptualization, Methodology, Resources, Writing-Original Draft, Writing-Review and Editing, Funding Acquisition.

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Declaration of interest statement

Authors have no competing interests to declare.

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