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Racial and Ethnic Disparities in Severe Maternal Morbidity: A Qualitative Study of Women's Experiences of Peripartum Care

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A B S T R A C T

Introduction: Racial and ethnic disparities in rates of maternal morbidity and mortality in the United States are striking and persistent. Despite evidence that variation in the quality of care contributes substantially to these disparities, we do not sufficiently understand how experiences of perinatal care differ by race and ethnicity among women with severe maternal morbidity.

Methods: We conducted focus groups with women who experienced a severe maternal morbidity event in a New York City hospital during their most recent pregnancy ($n = 20$). We organized three focus groups by self-identified race/ethnicity ([1] Black, [2] Latina, and [3] White or Asian) to detect any within- and between-group differences. Discussions were audiotaped and transcribed. The research team coded the transcripts and used content analysis to identify key themes and to compare findings across racial and ethnic groups.

Results: Participants reported distressing experiences and lasting emotional consequences after having a severe childbirth complication. Many women appreciated the life-saving care they received. However, poor continuity of care, communication gaps, and a perceived lack of attentiveness to participants' physical and emotional needs led to substantial concern and disappointment in care. Black and Latina women in particular emphasized these themes.

Conclusions: This study highlights missed opportunities for improved clinician communication and continuity of care to address emotional trauma when severe obstetric complications occur, particularly for Black and Latina women. Enhancing communication to ensure that women feel heard and informed throughout the birth process and addressing implicit bias, as a part of the more systemic issue of institutionalized racism, could both decrease disparities in obstetric care quality and improve the patient experience for women of all races and ethnicities.

Racial and ethnic disparities in maternal outcomes are a persistent public health issue in the United States. Black women are twice as likely to experience severe maternal morbidity (SMM) and three to four times more likely to die of pregnancy-related causes compared to non-Hispanic White women; in New York City, their pregnancy-related mortality risk increases to eight-fold (Boyd et al., 2020). Similarly, Latina, Asian/Pacific Islander, and American Indian/Alaska Native women are 20% more likely to experience SMM (Creanga, Bateman, Kuklina, & Callaghan, 2013; Creanga, Syverson, Seed, & Callaghan, 2017) and twice as likely to die from a pregnancy-related condition in

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some U.S. cities (Boyd et al., 2020). Racial disparities in this country may in part be due to structural racism creating inequitable racial distribution of sociodemographic and clinical risk factors such as education, insurance status, and maternal comorbidities that affect maternal outcomes (Wang, Glazer, Howell, & Janevic, 2020). However, even when adjusting for these factors, racial disparities remain. Although not well-studied, potential underlying mechanisms for such disparities include delayed or insufficient prenatal care use, psychosocial stressors, and interpersonal racism and discrimination (Bryant, Worjoloh, Caughey, & Washington, 2010; Gadson, Akpovi, & Mehta, 2017).

Institutionalized racism in the health care system, defined by Jones (2000) as differential access to services and goods by race, may also play an important role in racial disparities. In New York City, risk-adjusted rates of SMM vary six-to seven-fold across hospitals, and Black and Latina women in particular tend to deliver at higher morbidity hospitals (Howell, Egorova, Balbierz, Zeitlin, & Hebert, 2016; Howell et al., 2017). Studies show that Black–White and Latina–White differences in delivery location may contribute as much as 48% of the racial disparity and 37% of the ethnic disparity in SMM rates in New York City (Howell, Egorova, Balbierz, Zeitlin, & Hebert, 2016; Howell et al., 2017). Hospital quality could be a key factor in explaining these differences. Hospitals that serve a higher percentage of people of color may have structural characteristics, organizational factors, and clinical processes that lead to a lower quality of care than hospitals that serve a higher percentage of White patients (Howell & Zeitlin, 2017). Black and Latina women may also experience suboptimal care even within the same hospital, owing to differential patterns of care or implicit bias among providers (Howell & Zeitlin, 2017). Therefore, improving quality of care is a critical lever for reducing racial and ethnic disparities in maternal outcomes.

A key component to understanding how to improve health care quality is to examine women's experiences of SMM and how they might differ across race and ethnicity. Previous qualitative studies in the United States have examined the role of patient–provider interaction during pregnancy and childbirth among women of color (Altman et al., 2019) or experiences of pregnancy-related care among those at risk of preterm birth (McLemore et al., 2018). However, no study in the United States has yet examined the experiences of women with severe peripartum complications, particularly through the lens of racial disparities (Furuta, Sandall, & Bick, 2014; Hinton, Locock, & Knight, 2015; Norhayati, Surianti, & Nik Hazlina, 2015; Silva, Silveira Mde, & Gomes-Sponholz, 2016). The objectives of this study were to document women's experiences of SMM, identify perceived barriers to the receipt of high-quality obstetric care, and compare narratives across race/ethnicity.

Methods

This study was approved by the Icahn School of Medicine at Mount Sinai Institutional Review Board. We used focus group methodology to allow study participants to freely express their opinions among others with similar experiences (Morgan & Krueger, 1993). Additionally, we organized focus groups by self-identified race or ethnicity, which allowed us to identify social processes and knowledge that might be shared within each racial/ethnic group and to compare and contrast experiences across groups (Hughes & DuMont, 1993).

Participant Characteristics and Recruitment

This study used a purposive convenience sample of women who delivered at a large academic medical center in New York City. Because SMM events are quite rare (<3%), we received a Health Insurance Portability and Accountability Act waiver of authorization to review medical charts. The research team used SMM ICD-9/10 codes derived from Callaghan, MacKay, and Berg (2008) to identify women who appeared eligible for the study. We then contacted potential participants by letter and telephone to screen further for eligibility. Recruitment flyers were also posted in nearby community-based organizations and clinical settings that serve pregnant or postpartum women. Inclusion criteria were 1) delivery between June 1, 2016, and June 1, 2018, and 2) experience of a SMM outcome during delivery hospitalization or postpartum leading to readmission. Indicators of severe morbidity included, but were not limited to, intensive care unit admission, emergency surgery (e.g., hysterectomy), blood transfusion, organ failure, blood clot, seizure, stroke, eclampsia, sickle cell crisis, or hospital readmission within 6 weeks postpartum (Callaghan et al., 2008).

Data Collection

We conducted three focus groups with a total of 20 participants. Each group had four to eight participants. Because our research question addressed outcomes among Black and Latina women, who experience the largest disparities in SMM, we stratified the groups into: Black (FG1), Latina (FG2), and Other, including White and Asian (FG3), as a basis of comparison with Black and Latina women. We explained the purpose of the study during recruitment and obtained written informed consent at the start of focus group sessions. At each group, participants completed an anonymous demographic questionnaire with information on age, marital status, education, employment, income, parity, and source of insurance.

Five researchers comprised the study team. All five identify as women and have training in public health or health services research; two are also clinicians. Two researchers experienced in qualitative research methods acted as moderators, one of whom identifies as a woman of color and led the focus groups with Black and Latina women. Focus groups lasted approximately 90 minutes and were professionally tape recorded and transcribed verbatim. Research team members other than the moderators observed and recorded field notes on verbal expressions, body language, group dynamics, and discussion content.

The moderators used a semistructured focus group moderator guide with open-ended questions (Appendix) to elicit participants' experiences of pregnancy and childbirth, difficulties in receiving care, communication with clinicians, and experienced or observed instances of perceived discrimination.

Data Analysis

Data were analyzed using qualitative content analysis in which the content of the focus groups is interpreted through a systematic process of coding and identifying themes and patterns (Hsieh & Shannon, 2005; Mayring, 2014; Miles & Huberman, 1994). Three team members (E.W., K.G., S.S.), with training in medicine, epidemiology, and health services research, read all transcripts. E.W. inductively generated codes from initial reading of the text, which were then defined and used to develop a codebook that the research team reviewed and finalized. Two researchers (E.W., K.G.)

then independently applied the codes line by line to the transcripts using NVivo V.12 qualitative software. We did not formally test for intercoder reliability, but there were very few instances of coding differences between the two analysts; discrepant cases were discussed and resolved by the coders. E.W. and K.G. then used the text applied for each code to develop memos that summarized and described higher level concepts, relationships, and constructs (Birks, Chapman, & Francis, 2008). We also marked content within each code by the focus group it came from, thus allowing for comparison of racial or ethnic differences within codes. E.W. and K.G. then collaborated to organize these findings into resulting themes and to highlight illustrative quotes.

Results

The study population was 40% Black ($n = 8$), 40% White or Asian ($n = 8$), and 20% Latina ($n = 4$). Three-fourths of Black and Latina participants ($n = 9$ of 12) had Medicaid coverage, whereas all White and Asian participants were commercially insured. Additional sociodemographics of the study population are presented in Table 1. Although we recruited eight Latina participants, only four were able to attend the focus group session owing to serious inclement weather.

Table 1
Sociodemographic Characteristics of 20 Study Participants

Variable	*N* (%)
Self-reported race or ethnicity	
White or Asian	8 (40)
Black	8 (40)
Latina	4 (20)
Age (y)	
<20	1 (5)
20–29	5 (25)
30–34	7 (35)
35–39	4 (20)
40–44	3 (15)
Education level	
Less than high school	2 (10)
High school graduate or GED	3 (15)
Some college or 2-year degree	3 (15)
4-year college graduate or higher	12 (60)
Parity	
One	14 (70)
Two	3 (15)
Three or more	3 (15)
Insurance type	
Medicaid	9 (45.0)
Private or commercial insurance	11 (55.0)
Marital status	
Married or living with a partner	13 (65)
Divorced or separated	2 (10)
Never married	5 (25)
Employment status	
Employed	13 (65)
Nativity	
US-Born	17 (85)
Primary language	
English	17 (85)
Annual Income (US$)	
<15,000	3 (15)
15,001–30,000	2 (10)
30,000–45,000	4 (20)
>45,000	9 (45)
Don't remember or don't know	2 (10)
Borough	
Brooklyn	1 (5)
Bronx	6 (30)
Manhattan	8 (40)

Distressing Experiences of Childbirth and Recovery

Nearly all participants reported distressing childbirth experiences related to their maternal morbidity. Among some women, lingering emotional consequences and psychological trauma were apparent even at the focus groups (up to two years following delivery). Participants repeatedly said they did not understand what had happened to them. Many women spoke with palpable anguish, and several cried recalling delivery and postpartum events: "I thought I was dying. I just saw bright light, I said, okay… and [crying]… excuse me" [FG2]. When asked to describe their experience in a single word, women responded: "scary," "confusing," "lost," "traumatized," "alone," "rough," "complicated," "stress," and "frustrating." For one woman, the traumatic memories of her complicated childbirth overshadowed positive experiences of new motherhood: "I think I forgot that I had a baby, it was just complications" [FG3]. Several women mentioned that they were fearful of having another delivery or even, as one woman said, would "never want to have another baby" [FG2].

Loneliness and fear during and after childbirth, for example when separated from partners for extended periods, compounded the physical experience of complications. According to one participant:

> I went into the operating room after I delivered, because they had to remove the placenta. And then afterwards I had to stay in the operating room/recovery room, but forever. I felt like I was there for almost 24 hours. And that was miserable. [FG3]

Participants felt that protracted separation from their infants as they recovered from severe complications impeded initial bonding opportunities. Women reported struggling with competing demands as patients recovering from physical and emotional trauma and new mothers adjusting to their caregiving role. One woman described separation from her child with vivid frustration and resentment:

> I was very afraid that she wasn't going to take [to breastfeeding] because I hadn't seen her. That's traumatizing. At least bring her picture. I'd like to know what she looks like. [FG1]

The description of childbirth as a distressing, even traumatic, event was universal across all three focus groups. In the following results, we summarize elements of perinatal care identified by participants that exacerbated or reduced the stress of this experience and differences in experiences of care among racial and ethnic groups.

Continuity of Care and Provider Communication

Women discussed issues with continuity of care and provider communication at length, both during prenatal care and delivery. Lack of continuity during prenatal care was an issue particularly for Black and Latina women, many of whom had rotating prenatal providers owing to their Medicaid insurance plan. They described extended wait times, brief clinical encounters, and gaps in communication among clinicians, such as feeling that their case history was not conveyed or that they received conflicting clinical opinions and health information across providers. This hindered trust building, and the lack of familiarity between provider and patient, both during prenatal care and at the time of birth, was thought by women to lead to poorer peripartum experiences. As one woman explained:

> They really didn't take care of me while I was delivering. At the beginning they were telling me that I have a lot of amniotic fluid. At the end, when I came to the hospital they were telling me that there is no fluid, so they had to induce me to deliver the baby … If you have one doctor, one person following you, I think they will know better and avoid those kinds of mistakes. [FG1]

> I had a different doctor that delivered my baby, not the doctor that I had been seeing. That was my problem. Right after having my baby, I had complications, and it was another doctor. I had seen too many doctors [during the birth] so that I got panicky and frustrated. Once he [my OB/GYN] got in, that's when I started calming down, and that's when everything that was happening to me started to get back to normal. [FG1]

In contrast, some women, primarily in the White and Asian focus group, described how information and education from providers during prenatal care improved their experience during emergency deliveries. For example, one participant had discussed the use of forceps and vacuum extraction with her provider during prenatal care, which helped her to feel prepared and consulted when instrumental delivery was required:

> It just so happened that the vacuum conversation was [with] the doctor who ended up delivering me. So I felt very fortunate. [FG3]

During the delivery hospitalization or postpartum readmission, a few women among all three focus groups cited disagreements between different hospital departments and specialists regarding the plan of care (e.g., when to transfer to the intensive care unit, or epidural versus general anesthesia), causing them to question the quality of care received. One woman was sent to the intensive care unit (ICU) after a cesarean delivery complicated by a postpartum hemorrhage, without knowing why:

> They sent me to ICU overnight. ICU said, "we don't know why they sent you here. We don't know the pregnant body." Like they basically said we're sending you back. It just seemed like the two teams were talking but not talking. They didn't know what they were doing. [FG1]

Another woman with a high-risk pregnancy noted:

> My problem was that I had three or four different doctors, and none of them talked to each other, as far as I could tell. So they would contradict each other to me in terms of when I could leave, in terms of when I'd get a particular test. [FG3]

Others felt inadequately apprised of their complications when they were identified. They wanted more information than they received about the details of what was going to happen to them and the necessity of these unexpected procedures. These women described a hectic, rushed delivery experience and said they did not receive a clear explanation of what transpired during or after birth. As one woman explained,

> As of today, I don't understand what happened. No one has a clear explanation, and I feel like I'm fighting against a system trying to find out what happened. [FG2]

Another added,

> They just rushed me to the OR, and that was it. I was just lying there like I'm cold. I'm shaking. I know I'm not feeling good, but nobody is telling me anything. Nobody is telling me what's wrong with me. Nobody is giving me medication. Nobody is doing anything but putting a blanket on me. [FG1]

In a few instances, a lack of communication was perceived as intentional and not just an oversight. These women did not know why clinical decisions were made and felt that their attempts to learn more or push back were met with resistance.

> They were like "no you need a C-section," so I'm asking them, "why do I need a C-section," and they're like "don't worry about it." [FG1]

Women generally acknowledged the need for rapid treatment and expressed deference to clinical expertise in emergency scenarios, one noting, "I think that the staff were working within what they had and the resources they had" [FG1]. Their concerns resulted from not feeling sufficiently informed, and the distressing experiences of complications, rather than a desire to be involved in decision making:

> I feel like I got good care, I think I just had a bad experience. I don't know what happened to me. In terms of communication, my doctor still hasn't told me what happened. I don't know if she doesn't want me to know what happened. [FG3]

Regardless of the urgency of the situation, women emphasized the expectation that clinicians communicate clearly during and after the encounter.

Feeling Heard

Some women in each focus group stressed that they did not feel heard when they tried to voice pain levels, physical symptoms, and treatment preferences. Not feeling listened to fueled perceptions of "assembly line" care that lacked empathy and personal attention, which women found particularly concerning given the severity of their complications.

> My situation may not be new to [the doctors], or as traumatic for them, because they've seen it all. But I feel like I just expected a little more attention or feeling that they cared a little bit more … I was very angry about that. [FG3]

Several women felt that providers dismissed their symptoms as normal consequences of childbirth. For example, one woman after giving birth said,

> I was expressing how I was feeling, and the nurse ruled it off as anxiety. And then I don't even remember how many hours later, they checked my hemoglobin, my hemoglobin was 5, and then all of the sudden it was like oh my god, oh my god, oh my god, what's going on? [FG3]

Some described receiving attention only after prolonged delays, repeated attempts to communicate, or escalation of the severity of the situation, particularly postpartum. As one woman recalled,

> I remember just being written off as like, well, that's one of the symptoms of '[condition],' or whatever. And I just kind of let it go. It wasn't until four and a half days later when I mentioned it again. And now it was a very severe problem. [FG3]

Some participants felt that they had limited access to physicians and that nurses were overloaded and unable to be as

responsive as possible, which intensified distress. One woman described asking repeatedly for pain medication, noting:

> The doctor's nowhere to be seen … So I think that triggers a domino effect where the patients feel … the loneliness, the emptiness … the moral support not being there because the doctor is not around. And then the nurse feels that pressure [from the patient when the doctor is not responsive] … And here you go again, here you're in pain. Frustrated. You know angry, upset. [FG2]

Women suggested that even small efforts to elicit their perspectives and answer questions would go a long way in improving patient satisfaction: "For me [providers should] just take the time to listen … five, ten minutes of listening is caring" [FG2]. Having a partner, family member, or other support person to serve as an advocate was helpful when women had limited capacity to speak for themselves during childbirth or postpartum.

Appreciation for Life-Saving Care

Although the discussions often focused on deficiencies in care, many women also expressed appreciation for the hospital staff who provided critical, life-saving treatment during their obstetric emergency. For example, they said, "I felt like they saved my life. The doctors were excellent. The nurses were excellent" [FG1]; "I felt like they [doctors] were very thorough" [FG3]; and "Just thank you for everything you did for me because it was a big day for me…I appreciate all the care they gave to me" [FG1].

Women were grateful for surviving and emerging from the trauma with a healthy infant:

> I can say the staff were professional. I don't think we'd be sitting here if it weren't for them … this was my last, hopefully, pregnancy. I have three wonderful girls, and I'm thankful. [FG1]

Although the experience of complications was difficult and provider communication sometimes lacking, many women acknowledged the care they received ultimately contributed to good outcomes for both themselves and their babies.

Differences among Racial/Ethnic Groups

Although many of the same themes of distress, confusion, and an absence of information emerged in each focus group, Black and Latina women discussed dissatisfaction with the consistency, timeliness, and responsiveness of prenatal or delivery care more frequently than White or Asian women. They were frustrated by delayed prenatal appointments, limited facetime with clinicians, and fragmented care processes. Perhaps the most prominent difference among racial/ethnic groups was the degree of choice women had in selecting obstetric providers. Seventy-five percent of Black and Latina participants had Medicaid insurance coverage, which limited their choice of clinicians. Some of these women were cared for in a hospital ambulatory clinic, primarily by rotating residents. As one Black participant stated,

> The doctor in the beginning that you meet, that you got the bond with, you trusted, but the seven [doctors] that come afterwards, [you didn't trust]. [FG1]

Conversely, White and Asian women, typically privately insured, described a more active provider search based on desired practice and hospital criteria. They typically obtained prenatal care from an obstetric practice with a stable group of providers that they were able to meet during prenatal visits.

> I thought the group was great from day one. They told me [the doctor on delivery was] whoever's on schedule … So they made sure that you see every single person. Because I was high risk I went so often that I really developed a relationship with all of them. I think in my case that was the best, because they all knew me, and I knew all of them. [FG3]

Women were asked explicitly whether they believed that sociodemographic characteristics influenced their treatment and quality of care. No one in the Black focus group stated she was explicitly discriminated against because of her race. As one participant put it, "I don't think it's [discrimination], I just think it's the lack of communication." [FG1] However, this topic generated the most discussion in the focus group with Latina women. Several women felt that public insurance coverage, and not race/ethnicity, language, or nativity, resulted in poorer quality prenatal and hospital care, although one Latina participant disagreed and said she received inferior care as a direct result of her ethnicity:

> I think it's because of my race. I have pretty good insurance. I definitely think that my race has a lot to do with it. [FG2]

Latina women also reported a lack of attentiveness from clinicians. One described feeling rushed and dismissed in prenatal appointments:

> I kind of felt that they [doctors and midwives] would rush away the conversation and not want to talk about it … And I kind of felt that they were rushing me to just get the visit over and done. [FG2]

They also raised the issue in relation to the delivery hospitalization, describing how they felt like "specimens," with too many residents observing and discussing their cases and constant abrupt disturbances for examination. Postpartum, they cited not receiving adequate pain medication or assistance with daily functions such as getting in and out of bed and having bed sheets changed.

Discussion

Drawing directly on women's own narratives, this study elucidated the perinatal health care experiences of women from different racial and ethnic backgrounds who experienced serious obstetric complications. Our sample shared a common experience of SMM as a traumatic event with protracted emotional consequences that, for some, were still apparent during the focus groups that were conducted as long as 2 years after delivery. We identified elements of prenatal and childbirth care that served to heighten or mitigate the distress associated with maternal complications and found that Black and Latina women tended to report more deficits in the patient experience.

Women in our focus groups reported themes consistent with available literature, including pain, shock, and extended suffering following the morbidity event; frustrations with communication deficiencies before, during, and after the obstetric emergency; gaps in understanding or difficulty remembering details of the morbidity event; and feeling ignored, isolated, and powerless (Furuta et al., 2014; Norhayati et al., 2015; Olde, van der Hart, Kleber, & van Son, 2006; Souza, Cecatti, Parpinelli, Krupa, & Osis, 2009). Our results

demonstrate that for women coping with severe obstetric complications, improved provider–patient communication is a need that is heightened, rather than diminished, during emergency situations (Meaney, Lutomski, O'Connor, O'Donoghue, & Greene, 2016). Consistent and compassionate communication throughout prenatal and delivery care can prepare patient expectations, improve feelings of agency, manage trauma, and potentially increase patient safety (Burgener, 2017; Hinton et al., 2015).

Our results also demonstrate tangible suffering from severe childbirth morbidity events, consistent with previous work that suggests a profile of symptoms similar to post-traumatic stress (Olde et al., 2006; Souza et al., 2009). Many women expressed an unmet need for information to understand what happened to them after the fact. The postpartum period offers an important but vastly underused opportunity to recount and clarify the childbirth experience and mitigate longer term trauma associated with an obstetric emergency. As others have suggested, postpartum debriefing sessions allow maternity providers to answer lingering questions, offer greater explanatory detail than possible during emergent clinical encounters, and appreciate women's perspectives on trauma in the childbirth context (Baxter, McCourt, & Jarrett, 2014; Meaney et al., 2016). Quantitative evidence documenting the efficacy of these services is limited (Baxter et al., 2014; Rose, Bisson, Churchill, & Wessely, 2002), and integration into U.S. obstetric care is challenging, given minimal financial coverage for and limited patient uptake of postpartum visits and potential implications for malpractice risk. However, because SMM is a relatively rare event, women with serious pregnancy and childbirth complications may represent a segment of the obstetric population for which implementation of postpartum debriefing services may be feasible, wanted, and useful.

Our study also raises important questions of the role of race and ethnicity in the experience of SMM. Contrary to previous literature, Black women in our study did not describe explicit discrimination in care (McLemore et al., 2018; Shavers et al., 2012). However, we noted that both Black and Latina women raised issues with respect and responsiveness from clinical staff more frequently than did White and Asian women, suggesting instances of implicit bias among clinicians. A growing body of research (Beck et al., 2020; Roman et al., 2017) and media coverage (Martin & Montagne, 2017; Villarosa, 2018) has documented how clinicians' implicit biases may result in less attentive care and missed opportunities to prevent adverse health outcomes among women of color. There is evidence of racial bias in pain assessment and management among Black patients (Hoffman, Trawalter, Axt, & Oliver, 2016), and that women of color are less likely to receive epidural anesthesia and pain medication than White women (Lange, Rao, & Toledo, 2017; Morris & Schulman, 2014). Moreover, our study supports previous research documenting how women of color's experiences of childbirth may be influenced by how providers share or withhold information, leading to an unequal power dynamic and diminished autonomy (Altman et al., 2019; McLemore et al., 2018). This is even more relevant for Black and Latina pregnant women, who are additionally impacted by structural racism shaping their access to certain insurance plans, providers, and delivery hospitals (Janevic et al., 2020). Our study suggests that further investigations into these experiences are needed to better understand the effects of institutionalized racism and implicit bias on disparities in maternal outcomes. Operationalizing and measuring specific components of the clinician–patient interactions (e.g., timing, duration, and content) and inconsistencies across health care encounters among women of color, as well assessing degree of hospital choice and quality shaped by neighborhood and insurance, are priorities for quantitative research on racial and ethnic disparities in perinatal care.

This study is limited by reliance on narratives from a small number of patients at a single institution who experienced severe complications related to childbirth and may not be generalizable to other postpartum women. Still, we believe that our selection criteria specific to severe morbidity provided a degree of homogeneity in the gravity of participant experiences that was helpful in facilitating group cohesion and rich discussion. Moreover, having delivered in the same hospital provided a basis for which clinical experiences across race/ethnicity could be compared. In addition, we acknowledge, that although racial/ethnic differences are important, they are inevitably intertwined with socioeconomic factors. The Black and Latina women in our study were disproportionately more likely to have public insurance than in the White/Asian group, which in and of itself is driven by structural racism. Further qualitative analyses comparing women of different races with similar insurance or incomes may further help clarify differences in choice, quality, and experience of care. We also cannot exclude the possibility that women under-reported discrimination experiences out of hesitance to disclose this information to researchers at the same institution where they gave birth, although none of the researchers were directly involved in their care. There may also have been other biases affecting group discussions, including recall bias and groupthink. Finally, the research team's different positionalities in clinical and public health backgrounds may have influenced interpretation of the results. However, we believe that this diversity broadened and deepened our understanding of these women's experiences.

Implications for Practice and/or Policy

Our study has several implications for reducing disparities in maternal outcomes and improving experiences of childbirth. As mentioned, identifying women who suffered complications of birth and offering them opportunities for postpartum debriefing or counseling may be a useful way to identify and address ongoing emotional trauma. We also noted deficiencies in communication among clinical teams and with the participants, particularly for women of color, and further research is needed on the scope and consequences of these inconsistencies by race. Health services interventions include training obstetric providers (both physicians and nurses) in patient-centered care, communication skills, and implicit bias, as well as providing and promoting easy-to-use private reporting mechanisms for discriminatory treatment or poor quality of care. These mechanisms should capture information about race/ethnicity, as well as insurance, to hold institutions and policymakers accountable for health care inequities.

Conclusions

SMM, a rare but significant traumatic event, can have long-lasting clinical and emotional consequences for women. The issues identified in this study suggest missed opportunities to improve patient care and experiences when severe obstetric complications occur, particularly for Medicaid-insured Black and Latina women who may be more likely to experience deficiencies in these aspects of care. Even small changes to practice that make

women feel heard, informed, and consulted could substantially improve the overall patient experience, help to manage trauma, and address racial/ethnic disparities in quality of maternal care.

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Supplementary Data

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References

Altman, M. R., Oseguera, T., McLemore, M. R., Kantrowitz-Gordon, I., Franck, L. S., & Lyndon, A. (2019). Information and power: Women of color's experiences interacting with health care providers in pregnancy and birth. *Social Science & Medicine*, 238, 112491.

Baxter, J. D., McCourt, C., & Jarrett, P. M. (2014). What is current practice in offering debriefing services to post partum women and what are the perceptions of women in accessing these services: A critical review of the literature. *Midwifery*, 30(2), 194–219.

Beck, A. F., Edwards, E. M., Horbar, J. D., Howell, E. A., McCormick, M. C., & Pursley, D. M. (2020). The color of health: How racism, segregation, and inequality affect the health and well-being of preterm infants and their families. *Pediatric Research*, 87, 227–234.

Birks, M., Chapman, Y., & Francis, K. (2008). Memoing in qualitative research: Probing data and processes. *Journal of Research in Nursing*, 13(1), 68–75.

Boyd, L. C., Chazotte, C., Illescas, A., Johansson, E. W., Koch, A., Langston, A., … Searing, H. (2020). *Pregnancy-associated mortality in New York City, 2011–2015*. Long Island City, NY: New York City Department of Health and Mental Hygiene.

Bryant, A. S., Worjoloh, A., Caughey, A. B., & Washington, A. E. (2010). Racial/ethnic disparities in obstetric outcomes and care: Prevalence and determinants. *American Journal of Obstetrics and Gynecology*, 202(4), 335–343.

Burgener, A. M. (2017). Enhancing Communication to Improve Patient Safety and to Increase Patient Satisfaction. *Health Care Management (Frederick)*, 36(3), 238–243.

Callaghan, W. M., MacKay, A. P., & Berg, C. J. (2008). Identification of severe maternal morbidity during delivery hospitalizations, United States, 1991-2003. *American Journal of Obstetrics and Gynecology*, 199(2), 133.e131–133.e138.

Creanga, A. A., Bateman, B. T., Kuklina, E. V., & Callaghan, W. M. (2013). Racial and ethnic disparities in severe maternal morbidity: A multistate analysis, 2008–2010. *American Journal of Obstetrics and Gynecology*, 210(5), 435, e431–438.

Creanga, A. A., Syverson, C., Seed, K., & Callaghan, W. M. (2017). Pregnancy-Related Mortality in the United States, 2011–2013. *Obstetrics and Gynecology*, 130(2), 366–373.

Furuta, M., Sandall, J., & Bick, D. (2014). Women's perceptions and experiences of severe maternal morbidity–A synthesis of qualitative studies using a meta-ethnographic approach. *Midwifery*, 30(2), 158–169.

Gadson, A., Akpovi, E., & Mehta, P. K. (2017). Exploring the social determinants of racial/ethnic disparities in prenatal care utilization and maternal outcome. *Seminars in Perinatology*, 41(5), 266–272.

Hinton, L., Locock, L., & Knight, M. (2015). Maternal critical care: What can we learn from patient experience? A qualitative study. *BMJ Open*, 5(4), e006676.

Hoffman, K. M., Trawalter, S., Axt, J. R., & Oliver, M. N. (2016). Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites. *Proceedings of the National Academy of Sciences of the United States of American*, 113(16), 4296–4301.

Howell, E. A., Egorova, N. N., Balbierz, A., Zeitlin, J., & Hebert, P. L. (2016). Site of delivery contribution to black-white severe maternal morbidity disparity. *American Journal of Obstetrics and Gynecology*, 215(2), 143–152.

Howell, E. A., Egorova, N. N., Janevic, T. M., Balbierz, A., Zeitlin, J., & Hebert, P. L. (2017). Severe maternal morbidity among Hispanic women in New York City. *Obstetrics & Gynecology*, 192(2), 285–294.

Howell, E. A., & Zeitlin, J. (2017). Improving hospital quality to reduce disparities in severe maternal morbidity and mortality. *Seminars in Perinatology*, 41(5), 266–272.

Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277–1288.

Hughes, D., & DuMont, K. (1993). Using focus groups to facilitate culturally anchored research. *American Journal of Community Psychology*, 21(6), 775–806.

Janevic, T., Zeitlin, J., Egorova, N., Hebert, P. L., Balbierz, A., & Howell, E. A. (2020). Neighborhood Racial And Economic Polarization, Hospital Of Delivery, And Severe Maternal Morbidity. *Health Affairs*, 39(5), 768–776.

Jones, C. P. (2000). Levels of racism: A theoretic framework and a gardener's tale. *American Journal of Public Health*, 90(8), 1212–1215.

Lange, E. M. S., Rao, S., & Toledo, P. (2017). Racial and ethnic disparities in obstetric anesthesia. *Seminars in Perinatology*, 41(5), 293–298.

Martin, N., & Montagne, R. (2017). *Nothing Protects Black Women From Dying in Pregnancy and Childbirth*. ProPublica. Available: https://www.propublica.org/article/nothing-protects-black-women-from-dying-in-pregnancy-and-childbirth.

Mayring, P. (2014). *Qualitative content analysis: Theoretical foundation, basic procedures and software solution*. Social Science Open Access Repository.

McLemore, M. R., Altman, M. R., Cooper, N., Williams, S., Rand, L., & Franck, L. (2018). Health care experiences of pregnant, birthing and postnatal women of color at risk for preterm birth. *Social Science & Medicine*, 201, 127–135.

Meaney, S., Lutomski, J. E., O' Connor, L., O' Donoghue, K., & Greene, R. A. (2016). Women's experience of maternal morbidity: A qualitative analysis. *BMC Pregnancy and Childbirth*, 16(1), 184.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.) Thousand Oaks, CA: Sage.

Morgan, D. L., & Krueger, R. A. (1993). *Successful focus groups: Advancing the state of the art*. Thousand Oaks, CA: SAGE.

Morris, T., & Schulman, M. (2014). Race inequality in epidural use and regional anesthesia failure in labor and birth: An examination of women's experience. *Sexual and Reproductive Healthcare*, 5(4), 188–194.

Norhayati, M. N., Surianti, S., & Nik Hazlina, N. H. (2015). Metasynthesis: Experiences of women with severe maternal morbidity and their perception of the quality of health care. *PLoS One*, 10(7), e0130452.

Olde, E., van der Hart, O., Kleber, R., & van Son, M. (2006). Posttraumatic stress following childbirth: A review. *Clinical Psychology Review*, 26(1), 1–16.

Roman, L. A., Raffo, J. E., Dertz, K., Agee, B., Evans, D., Penninga, K., … VanderMeulen, P. (2017). Understanding perspectives of African American Medicaid-insured women on the process of perinatal care: An opportunity for systems improvement. *Maternal and Child Health Journal*, 21(Suppl, 1), 81–92.

Rose, S., Bisson, J., Churchill, R., & Wessely, S. (2002). Psychological debriefing for preventing post traumatic stress disorder (PTSD). *Cochrane Database of Systematic Reviews*, 2.

Shavers, V. L., Fagan, P., Jones, D., Klein, W. M., Boyington, J., Moten, C., & Rorie, E. (2012). The state of research on racial/ethnic discrimination in the receipt of health care. *American Journal of Public Health*, 102(5), 953–966.

Silva, D. V., Silveira Mde, F., & Gomes-Sponholz, F. A. (2016). Experiences with severe maternal morbidity: A qualitative study on the perception of women. *Revista Brasileira de Enfermagem*, 69(4), 662–668.

Souza, J. P., Cecatti, J. G., Parpinelli, M. A., Krupa, F., & Osis, M. J. D. (2009). An emerging "maternal near miss syndrome": Narratives of women who almost died during pregnancy and childbirth. *Birth*, 36(2), 149–158.

Villarosa, L. (2018). *Why America's Black mothers and babies are in a life-or-death crisis*. The New York Times Magazine.

Wang, E., Glazer, K. B., Howell, E. A., & Janevic, T. M. (2020). Social determinants of pregnancy-related mortality and morbidity in the United States: A systematic review. *Obstetrics & Gynecology*, 135(4), 896–915.

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