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Examination of maternal near-miss experiences in the hospital setting among Black women in the United States

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Abstract

Introduction: The high rate of maternal mortality among Black women in the United States continues to gain attention; yet research has not yet fully illuminated the precursors to these events, most impactful among them being "maternal near misses." A maternal near miss occurs when a woman nearly dies but survives a complication that occurred during pregnancy, childbirth, or within 42 days of termination of pregnancy. Researchers have focused on reviewing patient medical records after sentinel maternal events to help determine major contributors to them; however, qualitative studies with near-miss survivors, especially among Black women, may be a more useful approach.

Methods: Using a qualitative methodology, we conducted semi-structured interviews with 12 Black women to explore how they perceived the care provided to them during their near-miss experiences. Our study also employed a phenomenology framework to understand the lived experience of Black women who had a maternal near miss in the context of a hospital setting.

Results: We interviewed 12 women between October 2020 and March 2021. All participants had a maternal near miss between the years 2010 and 2020 and were aged between 19 and 41 years when they had their near-miss experience. These women identified communication, patient–provider relationship, skills/competency of staff, provider discrimination, systems issues, and emotional distress as major contributors to their experiences.

Conclusion: Maternal near misses serve as a precursor to maternal mortality events. By listening to patients and their families recount their perspectives on what leads up to these near misses, we can unearth valuable lessons that can aid in the development of strategies and interventions to decrease the numbers of pregnancy-related deaths; especially among Black women who suffer disproportionately from maternal morbidity and mortality. Based on these findings, we recommend that hospitals and OB-GYN practices consider the unique predispositions of their Black patients; account for their own personal biases, revisit the near-miss experiences of past patients to keep patients central to care and build rapport between patients and hospital birthing support staff; and center discussions about improvements in care around racist structures and systems.

Keywords

Black mothers, childbirth, labor and delivery, maternal health equity, maternal morbidity, maternal mortality, near miss

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Introduction

Black women in the United States are two to three times more likely to die in childbirth compared to their White counterparts.[1] This disparity worsens with age, as pregnancy-related deaths are four to five times higher for Black women over the age of 30.[1] Higher income and education are not protective factors against maternal mortality risk

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for Black women, given that Black women with a college degree are still five times as likely to die from pregnancy-related causes as compared to White women with a high school diploma.[1]

One type of pregnancy-related complication that receives little attention in the literature is a maternal near miss. A maternal near miss is defined as "a woman who nearly died but survived a complication that occurred during pregnancy, childbirth, or within 42 days of termination of pregnancy[2]" (p. 289). Although the woman lives, near misses have severe physical and mental implications on the women and the families who experience them.[3] A near miss has impacts beyond the moment of occurrence, including vicarious impacts on loved ones, and often requires interventions such as counseling for the psychosocial and psychological distress experienced, community support and alleviation of responsibilities while healing, and therapy for assistance with returning to sexual activities, among other types of care.[4] Near misses serve not only as a useful metric for assessing and improving maternal outcomes but also as an indicator of quality of care.[5,6] The Institute of Medicine defines quality of care as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge"[7] (p. 128). Central to improving the quality of care provision in hospitals is addressing structures and systems that adversely impact healthcare delivery. In considering the structures that significantly influence racial disparities in maternal health in the United States, racism and discrimination are paramount.

Racism has been clearly established as a threat to positive birth outcomes for Black women.[8–17] Jones describes racism as occurring at three levels: internalized; personally mediated; and institutional.[18] The levels most relevant to this discussion of Black women's maternal mortality and morbidity are personally mediated and institutionalized racism. Personally mediated racism is defined as "prejudice and discrimination, where prejudice means differential assumptions about the abilities, motives, and intentions of others according to their race, and discrimination means differential actions toward others according to their race"[18] (p. 1212). This level of racism is what one typically identifies as racist actions and can be either acts of commission or omission.[18] However, institutionalized racism is defined as "differential access to the goods, services, and opportunities of society by race"[18] (p. 1212). This level of racism "is structural, having been codified in our institutions of custom, practice, and law," and is "often evident as inaction in the face of need"[18] (p. 1212). Furthermore, obstetric racism has been identified as a term to capture the racist experiences that Black women encounter during the pre- and post-natal period.[8–11] For instance, research has shown that Black women, irrespective of income and education levels, are more likely to have their pain complaints overlooked and ignored compared to women of other races and ethnicities.[16,19,20] Black women have also reported receiving comparatively poorer quality of healthcare service delivery than their other racial and ethnic counterparts, refusal of help from providers when expressing pain, and a general failure of providers to treat them with dignity and respect.[21–23] These examples are all experiences that demonstrate how racism can impact the systems of care during Black women's obstetric journey. Other noted contributors to disparities in maternal mortality and morbidity for Black women include lack of social and emotional support during childbirth (e.g. limited access to doula support), delayed treatment or identification of complications that occur during the birth process (e.g. delayed diagnosis of emergent situations such as hemorrhage), and hospital systems issues (e.g. poor communication between provider and patient or documentation errors and inconsistencies in patient records).[16,17,24] Alone, these factors raise significant concern about the overall quality of obstetric service delivery, but can also be identified as outcomes of institutionalized racism.

Contemporary references in mainstream media to celebrities such as Serena Williams and Kira Johnson have also illuminated Black women's traumatic childbirth experiences. Serena Williams, global tennis icon, famously insisted that her healthcare providers conduct additional tests after her childbirth to diagnose a potentially fatal blood-clotting condition. Her initial requests were dismissed and only after her repeated demands did her providers learn that she indeed was in danger of a fatal blood clot.[25] Kira Johnson, a highly successful business woman and daughter of a celebrity judge, gave birth to a second child in 2016. Hours after her childbirth, massive bleeding led Kira and her husband to plead for physicians to take a closer look. After being overlooked for 8 h, Kira was rushed into an emergency surgery which she did not survive.[26] The experiences of Williams and Johnson demonstrate that despite having elite social class and access to economic and social capital, healthcare providers failed to provide them with high-quality medical treatment. These examples demonstrate how social class, celebrity, and privilege do not mitigate against poor quality obstetric care, near misses, or maternal mortality for Black women.

Racial disparities in maternal outcomes in the United States persist, despite being a nation with some of the world's most skilled physicians.[27,28] To our knowledge, no research qualitatively investigating near-miss experiences have been conducted in the United States. Although near misses are rare, they pose a significant hardship on women and families who experience them.[3] Understanding the contributors to maternal near misses among Black women can add to the knowledge base of how to prevent more severe birth complications from occurring and, as such, could be one way to address the disquieting racial inequities in maternal morbidity and mortality. Therefore, the

purpose of this study was to examine the near-miss experiences of Black women in the United States. As such, we posed the following research questions:

Research Question 1 (RQ1). How do Black women who have had a maternal near miss, describe their experience?

Research Question 2 (RQ2). How do Black women who have had a maternal near miss perceive the care provided by their medical team during their experience?

Study findings may prompt other researchers and clinicians to prioritize patients' voices as a means to determine hospital-based contributors to poor maternal outcomes.

Methods

Conceptual model

The conceptual framework in Figure 1 illustrates how the actions of hospital clinicians contribute to birth outcomes of Black women. We acknowledge that patient characteristics such as increased maternal age, obesity prior to pregnancy, Cesarean delivery, preexisting chronic medical conditions,[29] and life stress[30] (noted by the dashed box in the conceptual model) can also contribute to maternal morbidity; however, our study focuses on contributors related to hospital birth experiences. In this model, we highlight the two key actors who serve in critical roles during a woman's labor and delivery experience: the labor and delivery nurses (L&D nurses) and the obstetrician-gynecologists (OB-GYNs). In addition, the model denotes others who participate in obstetric care settings such as other providers and support staff. This model assumes five key contributors that influence birth experiences based on maternal near-miss literature:[23] (1) communication between patient and provider and between providers; (2) the nature of the patient and provider relationship; (3) the skills and competency of the providers;[17,31] (4) discriminatory practices undertaken by the clinicians;[32] and (5) hospital systems issues.[23,31] Below, we describe these key contributors in more detail.

(1) Communication: Effective patient–provider communication helps build rapport and allows the patient and the provider to establish their expectations for care, which has been shown to result in higher patient satisfaction.[33–35] Childbirth is a vulnerable time for birthing patients, making it imperative that women's right to make decisions and ability to actively participate in their care are protected.[36] (2) Nature of the provider and patient relationship: Research has shown that Black women are more likely to mistrust their doctors compared to women of other racial and ethnic groups, citing that the reason for this mistrust is the presence of a racially biased health system.[32,36,37] Black women have also acknowledged feeling unheard or voiceless in encounters with their health care provider.[3,8] Therefore, we anticipate that when the L&D nurses and the OBGYNs include the delivering woman in her medical care and decision-making, she is more empowered to speak up when she has concerns or feels something is not right.[38] The influence of racial discordance has also been shown to be important to the patient–provider dynamic;[31] therefore, we incorporated it into the model as well. (3) Skills and competency: We anticipate that near misses can be prevented with high levels of skill and competency.[3,23,39] Examples of provider lack of skill and competency include the clinical team's failure to identify risk factors, offering of incomplete or delayed treatment for emergent health issues during childbirth, and lack of cultural competency.[23] (4) Discriminatory practices: We assume that a provider's implicit biases influence their behavior, interactions with the patient, and decision-making, which can manifest as racial discrimination.[9,39] Implicit bias is defined as having attitudes and a preference for, or aversion to, a person or group of people without conscious knowledge.[40] When a provider possesses negative biases toward a patient, these biases can cause the provider to exhibit discriminatory practices against the patient such as ignoring pain complaints (because it is perceived that the patient is exaggerating or is not worthy of dignity or respect compared to women of other racial and ethnic backgrounds). Such behavior can increase the woman's probability of experiencing a near miss.[41] (5) Hospital systems issues: The final key contributor to adverse birth experiences is hospital systems issues. Examples include outdated and unavailable equipment and lack of emergency obstetric protocols, affecting the clinician's ability to provide the highest quality of care. Institutionalized racism is a fundamental cause of the limited resources in Black communities as it results in lower income, inequality in social environments, and less access to health insurance and gainful employment opportunities.[18,42–44] This dearth of resources is a deterrent to attracting highly skilled healthcare providers and community resource investment. Furthermore, this lack of resources and standardized practices may be detrimental during times of health care crises. Finally, we acknowledge that external and environmental factors impact the lived experience of Black women giving birth in the United States such as racist institutional structures, societal racial discrimination, and tolerance of racialized norms in the United States.[19,42,43,45] These attacks on Black reproduction have an enduring impact and contribute to the mistrust that Black women have of the medical community.[45] External and environmental factors are reflected by the dotted line bordering the conceptual model.

Study methodology

This study utilized a qualitative methodology, which enabled us to ascertain in-depth, rich, experience-based data.[46]

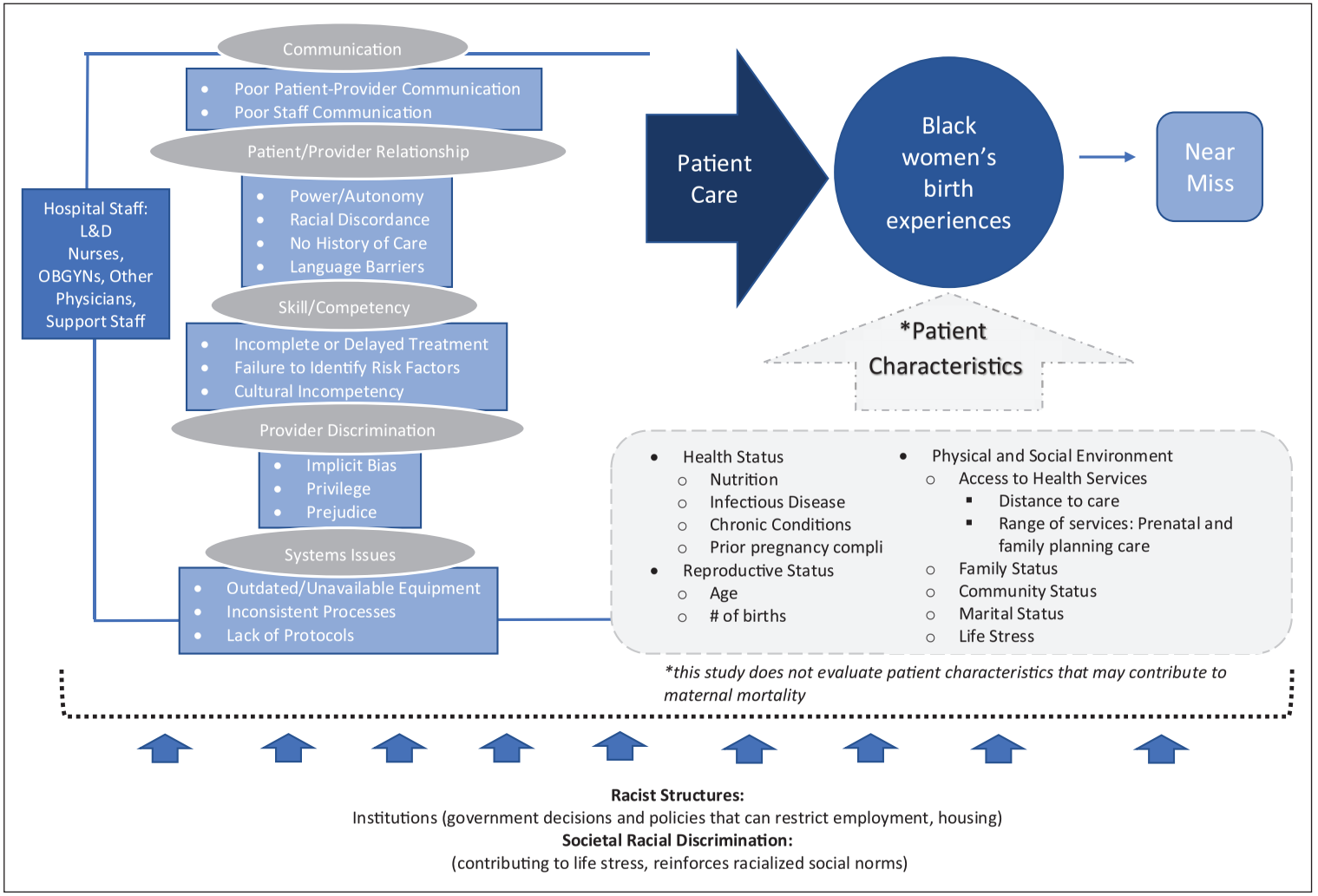

Figure 1. Conceptual model for a study of contributors to near-miss experiences for black women giving birth in the hospital setting.

Such methodology has proven useful to understanding and improving the quality of care in various settings.[46] We also applied a phenomenology framework in order to understand the lived experience of Black women who underwent a near miss in the context of the hospital setting. Qualitative studies are important because they give context to the complexities of human experiences. Using qualitative methodology is an opportunity to more deeply explore women's experiences beyond what can be examined using quantitative surveys or medical records.[3,47] Given the limited qualitative studies with Black women who experienced a near miss, investigation of these unique events is needed. Shifting the narratives to Black voices will give a platform to Black women who are rarely heard, especially as patients in the American hospital system.[48,49] Qualitatively studying this phenomenon may inform policies to help improve the quality of care provided to Black women and give Black women the tools to better navigate the health care system.[50] By applying this methodology, we sought to improve the phenomenon of near misses among Black women by applying findings unearthed in their lived experiences.[48]

Recruitment and procedures

We used purposive sampling to recruit study participants. We used social media and word of mouth recruitment strategies by way of a study flyer. We also disseminated the study flyer and colleagues posted the flyer on social media forums and in select Facebook groups to broaden outreach and encourage snowball sampling. Throughout the recruitment period, October 2020 through March 2021, the flyer was further promoted among university professors, colleagues, and personal contacts. Once individuals stated interest in participating in the study, they completed an electronic screening survey to confirm their eligibility. To be eligible for the study the women must have experienced a near miss within the previous 10 years in a US hospital, have been 18 years or older at the time of the interview, and identify as Black or African American. We selected the 10-year postpartum timeframe based on other published studies where researchers have successfully obtained perinatal experience recall from women up to 12 years postpartum.[51–53] We subsequently contacted participants to schedule their interview, which took place through the Zoom meeting platform via an audio-visual modality. Prior to each interview, each participant was emailed and read aloud, if necessary, a participant invitation letter. Subsequently, each woman provided verbal consent to participate in the study and to have the interview audio recorded via the Zoom meeting platform.

The interview team consisted of two female master's-prepared graduate students who had successfully completed the Collaborative Institutional Training Initiative (CITI Program) training for Social and Behavioral Researchers.[54] Prior to each interview, participants provided verbal consent to participate in the research and were supplied with comprehensive study information and contact information on their rights as a research subject. The interviews ranged from 35 to 90 min in length, and we transcribed the audio files verbatim in English. Field notes were recorded for each interview. No additional parties were present during the interviews. All participants received a US$25 gift card for their participation. The authors received no financial support to conduct this study.

Interview protocol

We developed the semi-structured interview guide using relevant maternal near-miss literature on contributors to maternal morbidity and mortality. Prior to using the guide, a panel of expert content experts and qualitative methodologists reviewed it to enhance clarity and appropriateness for the target population and to ensure content validity. The finalized interview guide contained five main questions, each including relevant probes. Questions were designed to assess (1) the participants' birth experiences; (2) characteristics of the hospital staff who attended their birth experience; (3) perceptions of the patient–provider interactions; (4) whether the patients believed their emergency was adequately resolved; and (5) what, if anything, they would have changed or done differently during their experience. The semi-structured interview style enabled researchers to ask both deep and probing questions to ascertain reliable interview data.[55,56] We concluded the interview with seven sociodemographic questions, that captured data on current age, age at near-miss experience, level of education, number of children, salary or income level, city and state where the near-miss experience occurred, and health insurance type at delivery.

Coding methodology

We coded the transcriptions using qualitative data analysis software NVivo version 12. Using open coding and thematic analysis, we analyzed the transcripts. Borrowing on the Consensual Qualitative Research methodology, two of the co-authors interviewed study participants and were involved in the analysis process.[57] Both participated in coding individual transcripts and collaborated to assess coding congruence and emergent themes. After interviewing half of the total participants, the interviewers presented initial findings to an expert qualitative researcher for feedback. The expert researcher elicited feedback on the clarity of the themes and on how well they aligned with the study aims. At the conclusion of all interviews, interviewers categorized codes into broader concepts, formulating study themes. The COREQ guidelines were followed while preparing this manuscript.

Results

We interviewed 12 women between October 2020 and March 2021. Upon conducting the 12 interviews, we had reached a point in the analysis that no new themes began to emerge and thus reached the point of data saturation. All participants experienced a near miss between the years 2010 and 2020, were aged between 19 and 41 years when they had their near-miss experience, had at minimum completed high school—with some college, and had income ranging between US$0 and US$100,000 (Table 1). Seventy-five percent of participants were from the Southern US Region, 17% were from the Eastern Region, and 8% were from the Midwest Region. Of the entire sample, 58% were from South Carolina.

We aimed to explore these women's experiences using a combination of a priori and emergent coding techniques. Our analysis supported the five main contributors that we included in our original conceptual model. Emergent coding revealed one additional theme and expanded the subthemes beyond what was included in the model (Table 2). The five contributors to adverse birth experiences from our conceptual model (communication, patient–provider relationship, skill/competency, provider discrimination, and systems issues) were further distributed into major themes and subthemes. The key findings from our analysis yielded nine major themes that could have adversely affected the childbirth experiences reported by the participants: lack of/poor provider communication; discontinuity of care; perceived provider mistreatment; provider discordance; mistrust; poor patient care provided; provider discrimination; hospital systems issues; and emotional distress. In addition to the aforementioned themes, participants shared reflections and regrets and offered advice to assist others who may find themselves in similar situations. In the following presentation of participant responses, pseudonyms are used to protect participant anonymity.

Table 1. Participant sociodemographic characteristics ($N = 12$).

Characteristic	Number of participants
Age at time of interview (years)	
21–30	8
31–40	2
41–50	2
Time since near miss (years)	
<1	3
1–2	3
2–3	3
3–4	
4–5	1
5–6	1
6–7	1
State of birth experience	
South Carolina	7
Georgia	1
Mississippi	1
Maryland	1
District of Columbia	1
Indiana	1
Education	
Some college	2
Associate's degree	4
Bachelor's degree	4
Master's degree	1
Doctoral degree	1
Income	
US$0– US$10,000	1
US30,000–US39,999	3
US40,000–US49,999	2
US50,000–US59,999	
US60,000–US69,999	1
US70,000–US79,999	2
US80,000–US89,999	2
US90,000–US99,999	
US100,000–US109,999	1
Number of Children at the time of Interview	
0	1
1	3
2	3
3+	5

Type of discordance	Numbers of participant–provider discordance by provider type
Provider racial concordance	Nursing 8 OB-GYN 4
Provider racial discordance	Nursing 11 OB-GYN 6
Provider gender concordance	Nursing 8 OB-GYN 4
Provider gender discordance	Nursing 3 OB-GYN 3

Lack of/poor provider communication

Participants described having a variety of issues with communication with providers, as expressed by four subthemes: lack of education and information provided to the patient; provider giving misleading information; provider not including the patient in their own care decisions; and the provider using medical jargon that the patient does not understand. For example, several participants expressed that they felt "left out" of their care decisions because their provider did not clearly communicate with them or include them in the decision-making process. During a Cesarean Section, one participant stated,

> After taking that deep breath, I hear a baby crying. I'm like, "when did they even start cutting me?" No one communicated . . . that . . . I really do feel like I was being rushed out. They should have communicated with me the entire time . . . If you're slicing someone open, and you're standing over their insides, and they're awake, talk to them, like you can you can speak to me. I'm a human being like, I'm scared. (Crystal)

Table 2. Qualitative themes and subthemes from participant interviews about their near-miss experience.

A priori	Themes	Subthemes
Communication	Lack of /Poor Provider Communication	Lack of Patient Education Provided
		Provider Giving Misleading Information
		Provider Not Including Patient in Care
		Using Medical Jargon Patient Does Not Understand
Patient–Provider Relationship	Discontinuity of Care	Change in Provider Prior to Delivery
		Change in Provider Post Delivery
		Another Provider from practice
		Lack of Previous Relationship
	Perceived Provider Mistreatment	Disrespectful Treatment by Provider
		Provider Disregard
		Provider Lack of Compassion
		Provider Not Taking the Patient Seriously
	Provider Discordance	Gender Discordance
		Racial Discordance
	Mistrust	Medical Mistrust
		Monetary Motives
Skills/Competency	Poor Patient Care Provided	Delayed Treatment
		Failure to Identify Risk Factors
		Incomplete Treatment Given
		Lack of Cultural Competency
		Lazy Staff
		Unskilled Nursing Staff
		Unskilled Physician
		Caring for Baby Over Mother
		Warning Not To Have Any More Children
		Just Doing Their Job
Provider Discrimination	Provider Discrimination	Insurance Discrimination
		Patient Needing to Show Credentials
		Perceived Implicit Bias
		Provider Power
		Provider Pride
		Provider Privilege
		Racism
		Stereotyping
Systems Issues	Hospital Systems Issues	COVID-19 Staffing Issues
		Staffing Issues
		Harmful Protocols
		Hospital Equipment Malfunction
		Inconsistent Processes
Emergent	**Themes**	**Subthemes**
	Emotional Distress	Emotional Distress During Experience
		Feeling Voiceless
		Faith or Prayer Mentioned

As noted by another,

> They start running all of their tests, and nobody is really telling me anything. I just felt like I was being dismissed by all of the nursing staff . . . I'm sitting here like, "y'all not gonna tell me nothing?" Like, I'm not supposed to know what's going on? (Samantha)

Yet another participant stated,

> Um the baby heart beat got to the point where it stopped . . . it was getting kind of low. They didn't tell me stuff you know, they was whispering and stuff not saying what was going on . . . hiding stuff from me. (Kimberly)

Participants receiving misleading information was also a common source of poor communication. A participant, after losing her baby during labor, still does not know exactly what happened. She recounted,

> And I'm like, Well, what is the truth? . . . even me, nine months later, I'm still trying to figure out like, who, what, what was the actual case? . . . I don't really know who was being the most honest with me, because I think [they had] like two completely differing opinions about like, whether my baby is like ready to be born or not . . . pretty weird. (Melissa)

Stephanie remarked that she had not been informed about her medical condition:

> Um, they were telling me "Oh, your blood pressure is elevated, because you're just anxious. You're just anxious." So, get back from the CT. Um and they said, "Well, you do have bilateral pleural effusions, you have fluid on both your lungs, the left more than the right. The left lung has atelectasis, which means it had collapsed. Um, and your heart is enlarged, you have fluid around your heart and your BNP had came back elevated. But you know, that's normal for a woman who's just had a baby." And I said, That's not normal for a woman who's just had a baby. Um, I . . . I'm not dumb. I know my lab values. I know what they should be. And that's not normal. I say and when did you know that I had these effusions? Because I had a chest X ray as soon as I got back here. [the provider] "Well, we seen them on the chest X ray, but we didn't want to tell you because your blood pressure was so high. And we didn't want to make you more anxious." So I sat there in that hospital them knowing that I had fluid in my lungs.

Within the category of Patient–Provider Relationship, participants expressed four themes that could have contributed to their poor childbirth experiences: discontinuity of care, perceived provider mistreatment, provider discordance, and mistrust.

Discontinuity of Care

Discontinuity of Care is a change in nurse or physician during the course of pregnancy and/or labor. One participant explained that, because of the medical group covered by her insurance, she did not know who would deliver her baby, regardless of who cared for her throughout her pregnancy:

> I have a medical group that um is Kaiser. And with Kaiser . . . when you go to the hospital you never know who is going to be on call. Um my doctor, I chose her because she's so phenomenal. I have a great relationship with her and I wanted her to be there. But she wasn't the one that was there. (Rachel)

Among all 12 participants, nine of them had their delivery attended by a different OBGYN than the one who cared for them throughout their pregnancy. Only one of the nine women had ever met their delivering physician. Melissa added that as she neared her due date she learned that her provider was not contracted to deliver at the hospital where she would give birth:

> I learned that she actually . . . doesn't deliver at the hospital. So she's like, "we contract with another company, and they have the . . . the um obstetricians on call, we don't actually deliver at the hospital."

Another participant recounted that she had never been delivered by her primary OBGYN for any of her births:

> "None of them did . . . I went, um went and I had um completely different care from um, for actually all my births" [after asking her if the OBGYN office communicated with her any after delivery] "No, they didn't even come to the hospital to see or check on me or anything. I didn't talk to them until uh six weeks when I had to go back to be checked." (Sara)

Perceived provider mistreatment

Participants expressed experiencing undesirable behaviors by providers, which presented in the following subthemes: disrespectful treatment by the provider; provider disregard; provider lack of compassion; and provider not taking the patient seriously. Such experiences were only overcome when the participant's condition worsened to an emergency. This theme was the one most populated with experiences for participants. Several participants shared that the emergency room staff and the OBGYN disregarded their symptoms. One participant remarked,

> So when I got to the ER that I had the baby at, they call my OB and told them what was going on and my OB said, "Well, just treat her as an emergency patient. We don't feel like it has anything to do with her having a baby." [later in the emergency room] "Oh, your blood pressure is elevated, because you're just anxious. You're just anxious." (Stephanie)

And then, after learning the participant had a serious health condition:

> And then after all of those issues came about and they got my records . . . they called and apologized they were like, "we're so sorry . . . Is there anything we can do for you?" Because, I mean, they were not taking me serious. Then after all this research, all of it surface[d], and I went back to the doctor for the follow up and all, did all the labs and the urine and all everything, you know, then they're blowing my phone up. "Um, are you okay? Are you okay? We –we don't know how we didn't catch that. We, we've never seen anything like that before." (Stephanie)

Other participants felt the need to convince their caregivers of the severity of their condition:

One woman said,

> [Doctor asked] "Well, what kind of headache from a scale of one to 10?" I said, 30. I said I'm in pain. I said I can barely talk to you. I'm very nauseous because I'm in so much pain. He was like, "30? I never heard that number before. You don't think ummm an eight?" I said no. Off The Charts. I said, you're talking to me . . . and that's hurting me right now. It's hurting my ears right now. That's how bad this is. (Amber)

Another participant shared,

> I actually, I took pictures 'cause he . . . kind of belittled me asking like, "What do you mean? Like what is a lot of blood to you?" You know, "how big are your blood clots?" and stuff like that? So I started taking pictures and recording for him like this doesn't make any sense. I shouldn't have to do this. Like you're my doctor. You're . . . you see what's going on . . . my blood levels are low. Help me. Like I don't I don't want to die. (Amanda)

A lack of compassion or feeling like the provider did not care was of great importance to participants. One participant stated,

> I didn't necessarily feel like [the doctor] was emotionally invested or like personally invested in like my well-being . . . they have not talked to me at all. In fact, if anything the entire time [during the C-Section], they were just talking about the football game. One doctor was talking about like Starbucks and like, "okay, when this is over at eight, I think I'm gonna run over to, you know, Panera, or Starbucks or something." (Melissa)

Another participant mentioned,

> They weren't listening to what I was telling them . . . They're trying to make me sign in basically. And I'm, like, doubled over in pain, like, Oh my god, I'm hurting so bad. It was like, "we need you to fill out this paperwork." And I'm like, bro for real? . . . so she's tryna talk to me and I'm, I'm like, gritting my teeth, . . . like going through the contraction. And she got mad and walked out. (Crystal)

When being cared for by a compassionate nurse aid, as Stephanie was alone laboring, another nurse retracted the support:

> And so she said [to the nurse aid], "Well, I need you to come help me do something with another patient. So you're not going to be able to stand in here with her and hold her hand." And . . . of course I didn't want her to stand and stand in there forever. But . . . just some type of um companionship at that time, you know, was much needed.

Provider discordance

Patients expressed concern that not sharing the same race and/or gender with their provider would contribute to a lower quality of care. Amber responded,

> I feel I need doctors that look like me, African American . . . those are the people I want to look after me because they can relate. They know what our race can handle and what we can't handle. So I would definitely encourage mothers now in today's world, like, get an African American doctor, someone that's going to hear your voice and understand your concerns and be able to relate and have that compassion for you, because you're just like them. So they're going to want your well-being just as much as they want their wife or their mother or their child, you know, in great hands. And I feel like no one other race is going to feel that way about our race . . . they don't know much about us. Yes, we are one people, but we're definitely different as far as medications and whatnot, because there are definitely a lot of blood pressure medications out there that African American women cannot take.

Melissa noted,

> Um and I would want, you know, birthing attendants, that . . . I would want someone that looks like me, I just feel I don't know why I feel that way. But I feel like a Black woman would just understand and be more transparent and be more of a patient advocate.

Amanda remarked,

> I do think um because she was a woman it made a difference.

Mistrust

Mistrust is a theme represented by the patient raising suspicions of healthcare providers and their motivations for providing the level of care received. For instance, one participant shared,

> She said [the nurse], "well, you're only nine centimeters, and you're only about 90% effaced". . . . I said, well, can you get the doctor in here, because at this point, I don't trust your judgment anymore. You told me I was two centimeters, and I was seven. And I need the doctor to come in here. (Stephanie)

Another participant said,

> I'm not saying that they truly mean ill. But [I] subscribe to this idea that—hospitals only get reimbursed but so much for Medicaid. . . . So, when you have a patient who is laboring without progress [and] things aren't moving along the way that you want it to, it's not necessarily profitable for your hospital. So, it's like what's the quickest way to do this? Oh, give her a C-Section and send her home . . . there's so many other documents, of things about doctors doing emergency C-Sections when it's not actually medically necessary, because the I mean C-Sections cost more money. (Melissa)

Poor Patient Care Provided

Poor Patient Care Provided is another significant theme expressed by participants. This theme represents an overall negative experience due to delayed treatment, failure to identify risk factors, providing incomplete treatment, poorly skilled staff, and disinterested staff, among other subthemes. Staff skill is central to proficient care and several participants mentioned having providers who seemed to be poorly skilled or who failed to identify participants'

emergent complications in a timely fashion. As relayed by one participant,

> The doctor came in and the nurse said, "Well, she's only two centimeters. I don't understand why, you know, her contractions are coming so hard and so soon, she's only two centimeters." The doctor said, "okay, well, let me check her." When she checked me, I was seven centimeters . . . [after some time had passed] So . . . she'sc [the nurse] also calling the team because they think maybe I'm gonna have to do an emergency C-section because I wasn't ready to push, because that's what she thought from her judgment . . . The doctor came, she said, "No, she's 10 centimeters dilated. She's 100% effaced, it's time to push." (Stephanie)

Another participant noted,

> I'm like pressing the button and pressing the button. They're not coming. So I'm like literally screaming at the top of my lungs, so I grab hold—like the bar on the side of the bed to pull myself up so I could sit up to press the button. And when I sat up, I was like, Oh, god, that doesn't feel right. And I reached down and I literally felt the head of my daughter, and so I'm pressing the button, and I'm screaming, she's coming! So the nurse finally answered the call button. And she was like, "are you okay?" And I said, She's coming out! And so like, my door flies open, maybe five or six nurses come running in . . . By the time they like got to me, she [the baby] was laying on the bed. (Crystal)

Prior to a month-long hospital stay, Amanda tried to take charge of her health care by trying a different hospital. However, due to her insurance, she was sent back to her primary hospital and found out some horrifying news:

> And that's when they found out um that my doctor had left my placenta in. And they was trying to figure out how in the world did that happen if I had a C-section.

Provider discrimination

Interviews revealed several forms of discrimination, through the following subthemes: insurance discrimination, patient needing to show credentials, perceived implicit bias, provider power, provider privilege, provider pride, racism, racial discrimination, and stereotyping. One woman remarked,

> Black woman on Medicaid. Oh, I think that's just a cocktail for disaster at this point. Um, I mean, I [laughs] I think a lot of it also has to do with like . . . I mean, stereotypes are on Black women, and it's like, oh, here you are, like, you know, being a leech on the system, like, oh, we're paying for this because you can't pay for it on your own. I mean, they don't even know that this is my first child . . . I had actually gotten a job at a research firm. (Melissa)

Another woman shared,

> So when my doctor walked in, my doctor addressed me as "Dr. NAME." And one of the White nurses was in the room when she did that . . . so the way they took care of me then started to change after that, because before that, I was being ignored. Like, I'm pressing the button, they're not coming. Like it was literally ridiculous. (Crystal)

Stephanie, another participant offered,

> I felt like because I was Black. They didn't think I knew what I was talking about. I felt like because I was Black when I went to the emergency room that they treated me like, oh, she's just trying to get attention. There's no way she can't breathe. She's talking. You know, I heard the nurse say, "well . . . you're talking so you're breathing fine."

Hospital systems issues

This theme included problems concerning staffing issues, harmful protocols, equipment malfunction, and inconsistent processes. Stephanie discussed how COVID-19 staffing increased confusion during labor. Stephanie shared her account of nursing staff complaints:

> "We don't work here," "They aren't the doctors we work with," "This isn't the hospital we work at . . ." That's all I heard the whole time . . . All the rooms were completely full; they didn't even have any rooms. So that's why I had to . . . stay in the same room because there was nowhere else for me to go. They had shut down the OB floor at this other hospital because of COVID.

Samantha suggested that the hospital follow standardized procedures to avoid asking inappropriate and insensitive questions:

> I went to my follow up visit after I'd had her. When I got there, the nurse was looking . . . noticed on the paperwork that it said that I gave birth. She was like, "how's the baby?" And I just looked at her and I said, dead. And she was like, "I'm so sorry!" When I got into the visit, I told my doctor, y'all should probably make notations of that. I mean, I understand that's just the person that's drawing my blood, but it should be something even if it's just like a different colored dot on your folder.

The equipment failure that Stephanie experienced greatly delayed her care:

> They said, "well, the CT machine is down here. So we're gonna have to transfer you to the hospital downtown." This is eight o'clock [pm]. I did not get transferred to the hospital downtown till midnight. Um I was basically sitting there . . . suffering . . . I could barely breathe. Um, they didn't even give me any oxygen.

Emotional distress

An emergent theme, *Emotional Distress*, captured the women's emotional state beyond what is typically expected during labor and delivery. Melissa shared her experience of being exhausted and uncomfortably cold for the duration of her labor:

> I was feeling very exhausted; it had been well over 24 hours . . . I hadn't made any progress. I was crying. I'm like, please give me . . . a break, can I just rest for 30 minutes? . . . In the middle of the night, after I got an epidural, I started shivering. So, she [the midwife] brings some heated blankets for me. And I'm just like, it's still just so cold. So, then she decided to take my temperature. And I think at that point, it's like, 103. They gave me the antibiotics and I can tell you like three hours, four hours pass—nothing. I'm still shivering it's getting even worse . . . They were not confident that me and my daughter would make it another four hours [of] dilations. I wasn't even able to talk to my husband because I mean, it's like, I'm struggling to even get words out. I just I'm shivering just so completely uncontrollably . . . I had asked my husband to promise me, if something should happen to me . . . just promise me, you'll always choose the baby over me.

Samantha explained that she felt faint when holding her daughter shortly after giving birth. She shared that her instinct was to protect her daughter before her fall:

> I do remember holding [CHILD'S NAME]. And I remember thinking, if I fall to the ground . . . Like, it's probably not good to drop your baby . . . I was like, how can I fall, but also keep her safe . . . And I don't remember if I fell on the floor, or on the bed or whatever. But I just remember thinking I have to get her to a safe position. And, somehow, I did. So, I don't remember anything after that, because I passed out. And they got me on the bed.

Rachel shared her experience before and during her life-threatening Cesarean Section:

[Before the Operation]:

> told my kids had a conversa—a little sit down conversation. That was hard. You know, if mommy doesn't come back, you know that I love you that type of stuff.

[During the Operation]:

> There was a lot of bleeding, I had to get um blood transfusions, two of them at the time, and the doctors was like, you know, "you're losing so much blood, we don't know what the outcome will be," my husband was terrified. Um, it just was a very scary situation to be like laying there . . . Because I was going in and out and . . . many doctors had to come in and start working on me because the massive amount of blood that I was losing, and . . . they couldn't get the baby you know, out . . . if something was wrong with her, they would have had a hard time getting to her . . . it was just a really rough birthing experience.

Several participants mentioned the role of faith or prayer in the midst of their emergency. Kimberly stated,

> She was a Christian. And she said "we're gonna have to praise God for this. This is . . ." I mean, we were just praising God, me, her, the nurses, just thanking God because they said, "We don't have a baby survive a situation like this and then you with your [blood] pressure going on you're blessed to be here as well." So, I, you know, that's a testimony.

Another participant remarked,

> I'm talking to God at this point, I'm like, I really felt like I was gonna die. I'm like, this isn't I don't think that this is how a person should feel. (Melissa)

Participant reflections were also collected to provide them an opportunity to suggest what they thought would prevent these types of experiences and to capture ways in which they have processed what happened to them. One participant shared,

> Um, so it's, it's very scary. Um, it was a very, very scary situation. Um but I just, I'm grateful that I'm here. And I'm able to, you know, tell it and, um, you know, help people to kind of be educated . . . (Shelby)

Another participant presented,

> I've been like trying to like, you know, break everything down. And like really think about it like, uh I mean . . . literally like after the birth, I'm like, Oh, I had a traumatic birth experience. But I said that like, nonchalantly but as I'm, as the months are moving on . . . I'm even grateful for this opportunity, because it gives me a chance to like speak . . . about . . . I really feel like they you know, really screwed me up back there. (Melissa)

Other participants appeared to not have processed their feelings after the experience. One such participant said,

> I ain't gonna lie, like the day they released me from the hospital, I went to work. And it was like, "why the hell are you here?" And I was like, I just can't go . . . I didn't go straight home . . . I was like, cause that's gonna feel weird me going to my house after giving birth and not having a baby with me. (Crystal)

Another woman remarked,

> . . . would add though, that this whole experience um caused PTSD for me so I'm actually in therapy, trying to go through the [e]motions and actually be okay with it even a year later. (Amanda)

Largely, participants regretted not advocating for themselves or planning enough. Melissa shared,

> And I mean, if anything, I'm really sad that in that moment, I couldn't advocate for myself the way that I think I should have.

Stephanie offered,

> I should have been more vocal about that [referring to speaking to the Doctor]. I shouldn't have let hours pass until she came in, like I should have been more vocal about seeing her. Because your right, as a patient, if you ask to speak to the doctor, your right is, they're supposed to come and talk to you.

Another participant, Shelby, shared:

> I would have definitely listened to my body more. Um and, you know, at the first sign of having difficulty breathing, I would have definitely gotten help, not just going to the doctor, because they're telling me "Hey, it's, it's normal." Um you know, "don't worry about it," I would have definitely gotten help sooner and faster.

Lauren shared a similar reflection:

> I guess I should have pretty much voiced my concerns . . . to the right people . . . when they sent me the survey, I feel as though I should have completed the survey, to give my feedback. And be honest, you know, this is the type of care I received . . . That's the only thing I'm kind of kicking myself that I should have did that survey.

Discussion

Our study explored the often-neglected maternal near-miss experiences of Black women. We were guided by a conceptual model, which was developed based on extant literature about potential contributors to the phenomenon of maternal near misses and adverse maternal outcomes.[33–37] For example, study participants remarked that they wanted to feel heard by their providers and wished to be included in care decisions,[3,6] which reinforces findings from other researchers which state that "communication is the main ingredient in medical care"[34] (p. 903). Participants noted that the quality of communication between patient and provider, as well as among providers, can greatly impact their obstetric and maternal care service experiences.[3,35–37] Some participants simply stated that they wanted to be more included in their healthcare decisions, while others were catastrophically misinformed about the severity of their conditions, which, without their persistence, may have resulted in a preventable death. As noted by Troiano and Witcher, poor communication is a key contributor to preventable maternal death.[23]

Our data reveal that the quality of the patient–provider relationship was also shown to influence the patient experience. Most participants expressed wanting to be included in their care decisions, even when their birthing plans were changed due to sudden emergencies. Some providers were noted as lacking empathy and showing disrespect toward their patients. Patients wanted to feel as though their providers cared about their well-being and were invested in their positive birth outcomes. Congruent with previous research findings, participants valued providers who seemed interested in their care and who took the time to ensure that the patient understood the information being shared.[32]

Provider skill/competency proved to be central to clinical decision-making and was a contributor to near-miss experiences, particularly in emergency situations. Participants shared how improper treatment and delayed diagnoses contributed to their distress. Research supports a focus on improving gaps in communication among clinicians, and continuing education as a means to leverage staff skill across the department.[17,32] These priorities are supported by King's[57] recommended strategies to improve maternal mortality in developed countries, and US-based findings which suggest that nearly 60% of maternal deaths could have been prevented had recognized standards of care been utilized.[23,58]

In contemporary public health research, discrimination has become more widely recognized as a significant contributor to Black women's negative maternal events. Saluja and Bryant reveal that some providers still adhere to erroneous assumptions about differences in a Black woman's pain tolerance, among other stereotypical beliefs.[17,26] As such, discrimination may result in inappropriate treatment recommendations and a disregard of patient complaints.[19,59] Several women reported mistreatment displayed by different members of the care team during labor, delivery, and the postpartum period. The women attributed some of these experiences to discrimination and not having a strong relationship with their providers—as physicians different from their primary OBGYN delivered their children in the majority of cases. As noted earlier, these actions and beliefs are driven by racism, which is embedded within systems and institutions and makes it easy to perpetuate discriminatory acts upon women of color.[16,22] These findings are reflected in research that posits an association between poorer birth experiences among Black women due to implicit bias, racism,[12–15] and cumulative life stress.[17,60] According to the Listening to Mothers III survey, one out of five Black and Hispanic women report experiencing mistreatment from hospital providers based on their race, culture, or ethnicity.[61] Participant experiences reflect representations of such discrimination, as they too report condescending language, disbelief in stated severity of symptoms, and as a result, incomplete courses of treatment.[17] As noted by Nuru-Jeter et al.,[62] our work supports the need for better understanding and clearer measures to capture how experiences of racism impact systems of care, and therefore the birth outcomes of Black women.

Finally, systems issues, identified by participants as issues with staffing, hospital protocols and procedures, and malfunctions in equipment, resulted in a negative birth experience. As aforementioned, Berg et al.[58] noted that central to preventable maternal death is the failure to adhere to recognized standards of obstetric care. While this study investigated participant experiences, there was

no opportunity to validate whether a cascade of events stemming from substandard care caused near-miss experiences. However, one participant, who was a nurse, identified missed opportunities in the course of her treatment where medical training would recommend different actions than the actions taken by her physicians. Studies to investigate concordance between course of treatment and medical recommendations are needed.

Recommendations for the healthcare sector

In response to these findings, we offer three recommendations for hospitals and OBGYN practices to mitigate the factors noted to contribute to maternal near-miss experiences among Black women. These include (1) revisiting previous patients' near-miss experiences to learn from those events; (2) building a rapport between patients and their future hospital birthing support staff; and (3) centering discussions about improvements in care around racist structures and systems. First, keeping patients and partners engaged and central to their care will create an environment in which patients are encouraged to be informed consumers and to advocate for themselves in their care process. This shift in perspective will result in an engaged partnership between patient and caregiver. Second, we recommend finding ways to build rapport between patient and birthing staff. Strengthening the relationship between the provider and patient, will foster a collaborative care environment, and allow for more positive health outcomes.[36,45] Finally, according to a recent South Carolina Maternal Morbidity and Mortality Review Committee legislative brief, discrimination was recognized as a contributing factor in more than half of all pregnancy-related deaths in the state occurring between 2020 and 2021.[63] These findings indicate the level of attention being raised to acknowledge that racism can have a severe, detrimental impact on Black women's maternal health. Hospital administrators, healthcare policy advocates, and educators of medical professionals should examine how the birth experiences of Black women may be impacted by provider implicit bias or institutionally racist systems.

Limitations and strengths

Several study limitations should be noted. First, we had a small sample size; therefore, this study may not be representative of the broader population of women who have experienced a near miss in the United States. According to Patton, a sample only seems small in comparison to the sample it intends to represent—if generalizability is the goal.[46] Lincoln and Guba support that sampling should also be guided by the point at which there is informational redundancy.[64] Since this study employs a phenomenological approach, we sought richness in the data to help drive considerations for a sufficient sample size.[64] Furthermore, we reached a point in the analysis that no new themes began to emerge, which is an important hallmark of data saturation.[64] Second, the women in this study all had some level of college education and the majority would classify as middle class; therefore, our findings cannot be generalized to the entire US population. However, this sample underscores the paradox in maternal outcomes among Black women that indicates that income and education are not protective factors against poor maternal and infant outcomes, as with White women.[65] Third, there are no supporting documents from patient care records. We also do not have any additional information about care the provided from the hospital, OB-GYNs, nurses, and support staff, other than what our participants shared. Having these documents and insight could help us to triangulate findings and strengthen the conclusions. Finally, given the timing of the study during the height of the COVID-19 pandemic, we could only conduct virtual interviews. We conducted interviews via Zoom, which limited the ability to assess nonverbal communication, such as body language, and introduced minor telecommunication problems. However, the Zoom platform enabled us to continue to interview in a virtual "face-to-face format," when social distancing was encouraged due to COVID-19.

Regarding study strengths, to our knowledge, this study is the first of its kind to qualitatively examine near misses among Black women in the US. Qualitative methodology enables access to in-depth, experiential data that prove useful to understanding and enhancing the quality of care.[46]Additionally, we used a phenomenology framework, which seeks to understand the essence of the lived experience for a particular group of people in a given context.[46] Our approach enabled us to examine the robust voices of Black women who described their near-miss experiences with the hopes of improving maternal outcomes for Black women.

Conclusion

Near-miss experiences represent a precursor to the ultimate outcome that no woman, family, or OBGYN desires—maternal death. Research demonstrates that disparities in maternal morbidity and mortality are avoidable and preventable, as recognized by the key contributors to maternal near misses identified in our study, and supported by extant literature. While participants shared powerful, indelible recounts of their near-miss experiences, common challenges with the care that they received during childbirth indicate that improvements to interpersonal communication between patient and provider (e.g. communicating clearly and swiftly with patients when emergent situations arise), interpersonal rapport between patient and provider (e.g. engaging patients in care decisions), and institutional structures (e.g. biased practices and racist systems) can vastly enhance women's birth experiences and outcomes. Further research is needed about how to consistently provide optimal care during the labor, delivery, and postpartum

period for Black women if we intend to eliminate the disparities in maternal outcomes.

Declarations

Ethics approval and consent to participate

The study protocol was reviewed by the University of South Carolina Institutional Review Board (IRB) in accordance with 45 CFR 46.104(d)(2) and 45 CFR 46.111(a)(7) and received an exemption from Human Research. Each study participant provided a verbal consent to participate in the study and were offered a $25 gift card for participation.

Consent for publication

Participants provided consent for use of experiences in publications.

Author contribution(s)

Tiffany E Byrd: Conceptualization; Data curation; Formal analysis; Investigation; Methodology; Writing – original draft; Writing – review & editing.
Lucy A Ingram: Project administration; Supervision; Writing – review & editing.
Nkechi Okpara: Data curation; Investigation; Methodology; Writing – original draft.

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Availability of data and materials

De-identified aggregate data presented in this study are available upon request from the corresponding author. The data are not publicly available to protect participant confidentiality.

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Supplemental material

Supplemental material for this article is available online.

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