



Original article

More Than a “Number”: Perspectives of Prenatal Care Quality from Mothers of Color and Providers

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ABSTRACT

Introduction: African American mothers and other mothers of historically underserved populations consistently have higher rates of adverse birth outcomes than White mothers. Increasing prenatal care use among these mothers may reduce these disparities. Most prenatal care research focuses on prenatal care adequacy rather than concepts of quality. Even less research examines the dual perspectives of African American mothers and prenatal care providers. In this qualitative study, we compared perceptions of prenatal care quality between African American and mixed race mothers and prenatal care providers.

Methods: Prenatal care providers ($n = 20$) and mothers who recently gave birth ($n = 19$) completed semistructured interviews. Using a thematic analysis approach and Donabedian's conceptual model of health care quality, interviews were analyzed to identify key themes and summarize differences in perspectives between providers and mothers.

Findings: Mothers and providers valued the tailoring of care based on individual needs and functional patient–provider relationships as key elements of prenatal care quality. Providers acknowledged the need for knowing the social context of patients, but mothers and providers differed in perspectives of “culturally sensitive” prenatal care. Although most mothers had positive prenatal care experiences, mothers also recalled multiple complications with providers' negative assumptions and disregard for mothers' options in care.

Conclusions: Exploring strategies to strengthen patient–provider interactions and communication during prenatal care visits remains critical to address for facilitating continuity of care for mothers of color. These findings warrant further investigation of dual patient and provider perspectives of culturally sensitive prenatal care to address the service needs of African American and mixed race mothers.

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Racial disparities in adverse birth and obstetrical outcomes between African American and White mothers are well-documented (Bryant, Worjloh, Caughey, & Washington, 2010; Hamilton, Martin, Osterman, Curtin, & Mathews, 2015; U.S. Office of Minority Health, 2012). African American mothers are also consistently less likely to receive adequate prenatal care in comparison with White mothers nationwide (Bryant et al., 2010; U.S. Department of Health and Human Services, 2013), and they are approximately 2.3 times more likely than non-Hispanic

White mothers to either initiate prenatal care late in the third trimester or not obtain prenatal care at all (U.S. Office of Minority Health, 2012). Although research is inconclusive about how prenatal care reduces birth outcome disparities (Walford, Trinh, Wiencrot, & Lu, 2011), previous studies found associations between inadequate use of prenatal care and adverse outcomes in preterm births, low birth weight births, and neonatal mortality (Cox, Zhang, Zotti, & Graham, 2011; Kitsantas & Gaffney, 2010).

Despite the extensive research on prenatal care, fewer studies investigate concepts of prenatal care quality and perspectives of African American mothers. Most studies primarily focus on adequacy of prenatal care use with limited attention to content or quality of care (Alexander & Kotelchuck, 2001; Sword et al., 2012). Few studies (Handler, Raube, Kelley, & Giachello, 1996; Lori, Yi, & Martyn, 2011; Mazul, Salm Ward, & Ngui, 2017; Wheatley, Kelley, Peacock, & Delgado, 2008) focus on the perspectives of prenatal care quality from African American mothers and other mothers of color. Studies that focus on mothers of color have not simultaneously explored providers' perspectives on prenatal care quality. Only one study (Dahlem, Villarruel, & Ronis, 2014) that examined interpersonal communication found that quality patient-provider interactions between African American mothers and their providers were positively associated with trust that mothers had toward providers and satisfaction with prenatal care. Given that the delivery and receipt of prenatal care is a reciprocal process between providers and mothers, more research is needed to assess differences in priorities for health care quality between these groups for increasing quality patient-provider interactions.

Because disparities in quality of care persist between African Americans and Whites (Agency for Healthcare Research and Quality, 2015), and African American mothers report more adverse experiences with prenatal care than White mothers (Wheatley et al., 2008), it is important to understand and address the factors that underlie these differences. One factor that might contribute to disparities could be differences in perceptions of person-centered care, defined as care that “ensures that each person and family is engaged as partners in their care quality” (Agency for Healthcare Research and Quality, 2015). Given ongoing advocacy for further examination of patient-provider-system interactions in prenatal care (Alexander & Kotelchuck, 2001; Mazul et al., 2017) and current attention to decrease disparities in person-centered care, elements that African American and other mothers of color identified as aspects of prenatal care quality should be further explored, rather than keeping a simple focus on quantity.

In this qualitative study, we compared perceptions of prenatal care quality between African American and mixed race mothers and maternal care providers. Using Donabedian's (1988) model of health care quality to inform findings, we examined perceptions regarding aspects of quality related to prenatal care structure and processes with focused attention to patient-provider interactions and perspectives on person-centered care. As a second research aim, we compared perceptions of prenatal care quality between privately insured and Medicaid-insured mothers to identify differences in perceptions between mothers of differing socioeconomic status (SES) using insurance type as an indicator.

Methods

Study Setting and Recruitment

This study took place in Southern Wisconsin, a state that ranks high in racial disparities in adverse birth outcomes

between African American, mixed race, and White mothers (March of Dimes, 2016; Onheiber & Pearson, 2012; Wisconsin Department of Health Services, 2016). From March 2015 through December 2016, 14 clinics served as recruitment sites, including private and academic medical centers and federally qualified health centers offering a variety of prenatal care services with individual, group, and midwifery care.

Through purposive sampling, we recruited a diverse range of prenatal providers by provider type and mothers who varied by education, insurance status, and number of children. Based on previous qualitative research recommendations (Creswell, 2013), we initially sought to recruit 30 mothers and providers to obtain saturation. Thirty-nine mothers and providers were recruited through flyers at clinics and community events, emails through clinic and community list serves, and snowball recruitment in which participants who completed the study recruited other mothers and providers. We selectively recruited African American mothers because the greatest racial disparities in birth outcomes exist between African American and White mothers. We also included mothers who self-identified as Black or African American and one or more other races (i.e., Native American or White) given the social complexities that could occur with mixed race identities (Harris & Sim, 2002; Rockquemore, Brunsma, & Delgado, 2009; Storrs, 1999). Eligible mothers met the following criteria: childbirth within 6 months of study recruitment, age 18 years old and over at the time of their infants' birth, had one or more prenatal care visits during pregnancy, residency within the county throughout the pregnancy, and delivery at a hospital within the county. Eligible prenatal providers included active obstetrics and gynecology (OB/GYN) physicians and residents, family medicine physicians and residents, nurse-midwives, and nurse practitioners. The University of Wisconsin Madison Institutional Review Board deemed this study exempt from review under section 45 CFR 46.101(b) (2).

Data Collection

The first author conducted all interviews in person using semistructured interview guides. Demographic information was collected from participants through self-report before their interviews (Table 1). Given the importance that insurance has for women to obtain prenatal care, we used the insurance variable to categorize women into privately insured and Medicaid-insured groups to assess differences in perceptions between mothers.

As in previous research (Salm Ward, Mazul, Ngui, Bridgewater, & Harley, 2013; Sword et al., 2012), the interview guides included open-ended questions such as “How would you describe quality prenatal care?”, allowing the interviewer to incorporate an inductive approach and mothers and providers to express views in their own words. For maximizing the relevance of study findings to clinical and community program needs, open-ended questions stemmed from previous research (Salm Ward et al., 2013; Sword et al., 2012; Wheatley et al., 2008) and discussions with physicians and program managers of two African American community-based prenatal support organizations in Wisconsin. Topics explored through the questions include initiation of prenatal care; barriers and facilitators to getting visits; communication between mothers and providers, nurses, and ancillary staff; and education on prenatal topics as recommended by the American College of Obstetricians and Gynecologists. Analyses for interview transcripts occurred in tandem with new interviews, and new questions were developed to inquire about new concepts that emerged. Data

Table 1
Demographic Characteristics of Providers and Mothers

	Providers (n = 20)	Mothers (n = 19)
Provider type ^a		
OB/GYN doctor	8	17
Family medicine doctor	8	2
Midwife	2	1
Nurse practitioner	2	3
Race		
Black/African American	1	15
Mixed race [†]	1	4
White	18	0
Gender		
Female	14	19
Male	6	N/A
Years of experience		
≥4	15	N/A
<4	5	N/A
Age (y)		
18–24	N/A	2
25–34	N/A	13
≥35	N/A	4
Parity		
≥1 Older children	N/A	10
None/first-time mother	N/A	9
Education		
High school graduate	N/A	4
Some college	N/A	4
Bachelor degree or more	N/A	11
Insurance status		
Private	N/A	10
Medicaid (BadgerCare)	N/A	9

Abbreviations: N/A, not applicable; OB/GYN, obstetrician/gynecologist.

^a For totals exceeding 100% for provider type for mothers: Some mothers had more than one type of provider during recent pregnancy, which is reflected in the numbers and percentages.

[†] Mixed race refers to participants who self-identify as two or more races/ethnicities. Only one provider self-identified as White and an Asian ethnicity. Mixed race mothers self-identified as Black or African American and White and/or Native American.

saturation was reached when the last two interviews for providers and mothers did not generate new concepts for investigation.

Each interview was conducted in spaces convenient to the participants in clinics, mothers' homes, or library rooms. All participants gave verbal informed consent before each interview and received \$25 gift cards in appreciation for their time. To protect study participants' identities, interview guides did not have questions about personal information (e.g., name, birth-date), and participants were given subject ID numbers for identifiers during data analyses. Each interview lasted approximately 30 to 45 minutes, was audio-recorded, and transcribed verbatim.

Analyses

The five-member analysis team used thematic analysis techniques (Boyatzis, 1998) for identifying key themes and patterns in the interview transcripts. This type of qualitative analysis gives the flexibility to incorporate inductive analysis based on participants' voices and deductive analysis along with codes stemming from previous studies. A preliminary codebook was developed using a priori codes from previous research (Sword et al., 2012). Additional codes were then established using an inductive approach in which the first maternal and provider interview transcripts was read in full for content, then open coding techniques were used to assign conceptual codes to meaningful

segments of text. This coding scheme was applied for the remaining interviews with additional codes established as new concepts emerged from the interviews.

To establish coding reliability, the analysis team took the following steps (Boyatzis, 1998). Two members coded each transcript as one of the most common ways of establishing reliability. Each analysis team member first independently read transcripts and coded interviews using the codebook. Inter-rater reliability was checked by calculating percentage agreement of themes between coders before the coding teams met for consensus. The consensus meetings then occurred to discuss coding discrepancies and discuss changes to the codebook based on additional themes that emerged.

Next, we identified and compared recurring themes between and within groups of mothers and providers using memos, data matrices, and consensus meetings. Differences in mothers' experiences were explored by their categorization as "privately insured" or "Medicaid insured." Differences in providers' experiences were assessed by provider type. NVIVO (QSR International, Melbourne, Australia) was used as a data retrieval tool for coding. An audit trail was maintained of coding decisions and theme identification and comparison throughout the analysis process.

To enhance relevance of our findings to current prenatal care quality research (Sword et al., 2012), emergent themes were mapped to broader categories that reflect Donabedian's (1988) conceptual model of health care quality. Although conceptual frameworks are not widely used in qualitative research, they can be used for applied research like this study that focuses on policy-driven outcomes (Pope, Ziebland, & Mays, 2000). The Donabedian model proposes that three main constructs constitute health care quality: 1) structure, which refers to the environmental context where care is provided (i.e., clinic resources, medical organization of care), 2) process, which encompasses technical and interpersonal aspects on how providers care for patients, how patients receive care, and patient-provider interactions, and 3) outcomes, which refer to patient health status measures related to health care and satisfaction of care received. Illustrative quotations were extracted from the transcripts for each construct.

Results

Table 1 provides the demographics of providers (n = 20) and African American and mixed race mothers (n = 19) who participated in the study. Table 2 maps the following themes identified from the interviews with Donabedian's health care constructs of structure, process, and outcomes. Most themes related to the process construct, specifically patient-provider interactions.

Construct 1: Structure

Mothers and providers agreed that "quality prenatal care" includes care being accessible throughout the pregnancy period regarding appointment availability and clinic resources. One family medicine doctor noted:

I think it needs to be accessible both in terms of having [it] in a physical facility that's going to be convenient for the patient... in terms of economics, having insurance that's going to cover everything, and then with available appointments, being able to get in.

Table 2
Donebedian (1988) Concepts and Themes from Interviews

Concepts	Providers	Mothers
Structure: clinic resources and medical organization of care	Accessibility of appointments and clinic resources Team approach with providers and staff	Availability of appointments Connection of care prenatally through postpartum
Process: provider and patient activities during visits	Patient-centered care tailored to the individual Testing by medical standards	Compassionate care cultural competency/sensitivity Choosing options without pressure
Outcomes: patient satisfaction of care and health outcomes	Mothers' satisfaction of care	Satisfaction with continuity Satisfaction of communication with postpartum topics

Some mothers and providers also valued care that unifies the prenatal care process with childbirth and postpartum care. One mixed race mother commented on the segmented organization of maternal care:

I feel like [maternal care is] a very fragmented process... it would be so nice if it was like, I'm going to help you through this process of becoming a parent... it feels very fragmented and un-unifying when I think what you want is care that unifies you and your baby.

Differences in other structural elements of health care quality emerged between providers and mothers. Although mothers did not mention benefits to team approaches to prenatal care delivery, providers viewed access to good clinic teams as important aspects of prenatal care quality, as these family medicine and OB/GYN doctors note:

I think having a team approach with some nurses who are dedicated to coordinating things, the physician assistant and the team approach, in some ways, it spreads out the workload, but it also doesn't put the burden on one person. And so then I think things don't get dropped.

I also think having a good clinical staff is important because the physician tends to be very busy with not only prenatal care but also GYN care.

Structural barriers to prenatal care for mothers included scheduling issues with clinic staff, with this problem recalled more than transportation issues hindering prenatal care access. More Medicaid-insured mothers experienced structural issues than privately insured mothers, as exemplified by this African American mother's experience:

[OB/GYN doctor] always told me that if you miss an appointment, call right away and get in that week. So one time I did miss an appointment, and I called to reschedule it, and [clinic staff] told me that it was only an annual check visit, we don't have anything this week, why don't you just come in your next appointment.

Construct 2: Process

When describing "quality prenatal care" relative to visit activities, themes emerged relative to patient-centeredness, communication of testing and options, and cultural competence or sensitivity.

Patient-centeredness

Providers and mothers overwhelmingly valued care characteristics that indicate a patient-centered approach, which include compassionate care that is tailored to the mothers'

needs, a functional relationship built between mothers and providers, effective provider responses to patient questions, prenatal education for mothers to be well-informed, and care that encompasses the "whole woman." One midwife explained:

We try to treat the entire woman and her family, so we're very much family-centered care, as well. So we look at all of, many socioeconomic factors when we're looking, when we're doing, providing the prenatal care.

As an example of compassionate care, one mixed race mother expressed appreciation for her OB/GYN doctor who tailored her care with empathy concerning her past experiences with miscarriages:

I think there was a level of understanding there where [OB/GYN doctor] put herself in my shoes and could maybe empathize with how I was feeling about the pregnancy based on our previous history and like based on how things started there.

Cultural competence (sensitivity)

Although both groups agreed on an overall picture of patient-centered prenatal care, perspectives differed on how this care translates into practice, particularly regarding "cultural competence" or "cultural sensitivity." Some providers had skeptical views about cultural competence:

I don't have any "cultural competence"... whether we're talking about a different culture like a different ethnic background or we're talking about a different culture like different socioeconomics, if you are my patient, I don't know what your background is or what your challenges are until we talk about it.

Although mothers value providers who treat patients on a case-by-case basis, mothers want providers to learn of needs specifically affecting mothers of color, as this African American mother explains:

Culturally sensitive is being aware of if you have a sickle-cell patient, for example, really doing your homework on the emotional side of what it means to have sickle cell, the prevalence of it in the African American community.

Mothers also felt that lack of providers' cultural competence could lead to implicit bias and erroneous assumptions that providers make about mothers. One mixed race mother described her experience with her perinatal care team:

It's not even on their wavelength of how, based on implicit bias, or whatever, they may treat someone differently... It's not a part of their everyday conversation when it should be, or their thought process. For them, they know what statistics tell them. You know what I mean? It's, we're numbers and not people.

The need for culturally competent or culturally sensitive care seemed to have greater value to mothers, specifically care where providers do not make assumptions or have judgments about their social or economic circumstances. In comparing Medicaid and privately insured mothers, providers' negative assumptions were noted almost entirely among the privately insured African American and mixed race mothers rather than Medicaid-insured mothers:

A lot of times there was an assumption. Like [providers] just assumed that I was on BadgerCare [Medicaid]. I'm like, uh no, I'm not actually. You know, I have my own plan... So I think quality is, don't treat me like the way you treated the other women on BadgerCare.

Testing and options

Overall, mothers' perceptions of prenatal care quality centered on interpersonal processes of prenatal visits. In contrast, providers concentrated more on activities that constitute "quality prenatal care" based on American College of Obstetricians and Gynecologists standards, such as completion of required tests and communicating information to the patient. One OB/GYN doctor commented:

Quality prenatal care from our perspective, from the physician's perspective, is making sure that each patient has had all the lab testing that they need as part of the pregnancy... So to provide quality care, every patient has to have that information because if there is something amiss, we need to figure it out.

Although most mothers acknowledged the need for testing, mothers also expressed the need for providers to communicate options in care and the ability to provide consent without coercion. Pressure to consent to optional tests and procedures caused great concern for mothers. This mother experienced pressure to complete an unwanted test, which prompted her to switch providers:

She just kind of kept pushing [genetic testing]. And I asked her, why do you do that with women where you try to, you know, get them to do tests, and they opt out of it? And her response was, you know, so that way if you wanted a choice to terminate that pregnancy, then you can have that choice... That's why I don't, that's why I stopped seeing her.

Construct 3: Outcomes

Both groups agreed that "quality prenatal care" should result in satisfaction of mothers with the care experienced. Some providers also noted the importance of providers being satisfied with the care given, as one OB/GYN doctor notes:

I feel like it's so much better when the patients are happy with the care that they're getting, but we're also happy with the care that we are providing them.

However, some mothers felt dissatisfied with the overall process of care they received when continuity of care unexpectedly dissolved for labor and delivery and/or postpartum, as one mother expressed:

I kind of felt a little bit disconnected towards the end of the pregnancy with [provider]. I know she was busy too, but she wasn't even at my birth, so I kind of felt like all that time that we spent... I didn't really have any closure, you know, with the support that I had.

Another aspect of prenatal care quality for mothers affecting the overall satisfaction of care is the inclusion of postpartum educational topics such as breastfeeding and contraception. Upon further reflection on mothers' prenatal and postpartum visits, several expressed dissatisfaction when their inquiries on postpartum topics were not adequately addressed:

[Provider] did talk about birth control like towards the end, and, (pause) you know, just gave me some options. But it was kind of, I don't know, that part was kind of like, how you say it, it wasn't as in depth of a conversation... I didn't feel as sure when I left that appointment as to what I wanted to do.

Discussion

These findings support the notion that African American and mixed race mothers and prenatal care providers have some shared understanding of what constitutes prenatal care quality. However, important differences include contrasting viewpoints on the importance of cultural sensitivity and communication of standards of prenatal care while respecting mothers' value on having options. The Agency for Healthcare Research and Quality U.S. National Healthcare Disparities Report annually documents racial and ethnic disparities in health care along four concepts—person-centered care, safety, effectiveness, and timeliness—and our study contributes to the literature by highlighting potential disparities in patient-centeredness.

We also found that privately insured and publicly insured mothers of color differed in structural and process elements of care in which they emphasize negative experiences. As previous research indicated (Wheatley et al., 2008), Medicaid-insured mothers in this study reported structural issues with prenatal care access as exemplified by complications of scheduling appointments with clinic staff. In contrast with previous findings (Attanasio & Kozhimannil, 2015), privately insured mothers in our study perceived more problems with negative assumptions and disrespect during prenatal interactions. These problems for privately insured mothers relate to the process aspects of prenatal care quality rather than structural elements. The possibility exists that higher SES mothers have different expectations of care and may view certain provider interactions differently than lower SES mothers (Attanasio & Kozhimannil, 2015). Future research can investigate to what extent the perspectives of African American mothers differ based on SES characteristics; these differences may influence their perspectives of care and may need direct intervention to enhance perceived quality.

Findings from this study indicate unique differences in perceptions of quality between mothers and providers, particularly perspectives on cultural sensitivity, which might be a relevant aspect of patient-centeredness and overall quality for African American and mixed race mothers. Thus, concepts related to cultural sensitivity could be explored further to assess the quality of prenatal care among mothers of color and providers. Racial discordance between mothers and providers might have also influenced perceptions of quality. Eighteen out of 20 providers in our study were White. This percentage of White providers is representative of the lack of diversity in prenatal care providers in the United States. Patient-provider communication, trust, and satisfaction is lower in race-discordant patient-provider relationships (Cooper et al., 2003; Johnson, Roter, Powe, & Cooper, 2004), and racial discordance may have influenced mothers' perceptions of their care in this study. The emerging relationships between patient-provider racial concordance, health care

satisfaction, and adherence to recommended care warrant further attention in research (Dovidio et al., 2008; Earnshaw et al., 2016), and understanding these relationships is especially relevant in communities where racial discordance between patients and providers is common.

Our study had some limitations. Because recruitment was targeted to one Midwestern county, mothers and providers in this study might not represent those in other health care settings. Notably, all mothers had either Medicaid or private insurance. Uninsured patients generally report worse experiences in care (Fiscella & Sanders, 2016), including more barriers in communication problems (Attanasio & Kozhimannil, 2015). In addition, we recognize that using insurance status as an indicator for SES may not fully account for differences based on other socioeconomic factors. Because our provider sample included few midwives or nurse practitioners and most mothers received care from OB/GYN doctors, our findings primarily address OB/GYN care. Future studies could dually explore patient and provider perspectives within family medicine and midwifery care. Finally, data collection was limited to one postnatal interview per mother, and recall bias could have influenced their recollection of prenatal events. Future studies can incorporate multiple interviews during prenatal and postpartum periods to capture thoughts about care during pregnancy and compare them with overall experiences.

Implications for Practice and/or Policy

For addressing health care disparities, improving mothers' satisfaction with prenatal care, and encouraging early initiation and continuity of care for mothers, providers should continue to focus on ways to enhance patient–provider communication in delivering tailored and culturally sensitive care. Our findings suggest that many barriers related to prenatal care could be addressed by strategies to enhance patient–provider communication between providers and mothers of color. Specifically, these results indicate that prenatal care should encompass more strategies to enhance provider understanding of patients' social and cultural context.

Several strategies for assessing patient context and incorporating cultural sensitivity might facilitate communication between providers and mothers of color, given time limitations for visits. The American College of Obstetricians and Gynecologists (2014) recommendations include patient-centered interviewing, cultural sensitivity training for providers, and strategies to improve shared decision making between mothers and providers. Improvements to enhance assessments of patients' social and contextual circumstances at the initial prenatal visit could facilitate patient–provider communication throughout pregnancy. Initiatives to increase racial diversity among prenatal providers would enhance cultural sensitivity toward mothers of color. Also, doula support (Kozhimannil, Vogelsang, Hardeman, & Prasad, 2016) and alternative prenatal care models such as CenteringPregnancy (Ickovics et al., 2011; Lathrop, 2013) can be further explored for enhancing culturally sensitive prenatal education and support and increasing adequacy of visits for mothers of color.

Conclusions

Given the continued racial disparities in adverse birth outcomes, developing a shared understanding of “quality prenatal care” remains important for mothers of color and providers to

collaborate for optimal maternal health and birth outcomes and continuing care postpartum. Further exploration of attitudes that affect patient–provider interactions is, therefore, warranted to improve provider understanding of interpersonal communication, provider training, and patient education (Thornton, Powe, Roter, & Cooper, 2011). Understanding gaps between patient and provider perceptions and experiences with prenatal care is critical for the continual improvement of clinical services and culturally sensitive approaches to prenatal care delivery for mothers of color.

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