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## Racial Residential Segregation, Neighborhood Disorder and Racial Discrimination Among Black Pregnant Women

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SEGREGATION, NEIGHBORHOOD DISORDER, AND DISCRIMINATION

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### **Data Availability**

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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**Abstract**

**Objective.** To compare and contrast pregnant, Black women's voices with quantitative measures of racial residential segregation, neighborhood disorder and racial discrimination.

**Design and Sample.** Using a convergent design for the parent study, surveys and qualitative interviews were completed by Black pregnant women (n=27).

**Measures.** Content analysis was conducted and data were analyzed to assess for congruency or divergence for each concept related to structural racism (racial residential segregation, neighborhood disorder, and discrimination).

**Results.** No single concept had 100% agreement across qualitative and quantitative approaches. Participants disclosed experiences during some interviews that were not captured by the surveys. The qualitative interviews offered a more detailed description of the concepts which along with the quantitative measures, provided insights about how participants perceived these mechanisms.

**Discussion.** While important relationships about the mechanisms of structural racism and preterm birth can be examined using a single approach, using mixed methods can offer more insights about how those most impacted by preterm birth relate to these mechanisms. Future work will best add to the understanding of structural racism and preterm birth when study measures accurately reflect the experiences of the people who experience racism.

## Background

Preterm birth (birth prior to 37 weeks of gestation) is a significant and ongoing problem in the United States (U.S.). The preterm birth rate for Black women in the U.S. is 1.6 times that of White women (14.4% and 9.1% respectively) (Martin et al., 2021). There is a growing body of literature that examines how structural racism and social determinants of health contribute to this disparity (Alhusen et al., 2016; Bailey et al., 2017; Chambers et al., 2018; Mendez et al., 2011; Slaughter-Acey et al., 2016). This has led to a re-examination of the way that the larger systemic and contextual factors, such as racism and segregation, contribute to these disparities and growing public health crisis. Attention to the causal pathways between the societal power structures and historical context and physical expressions of health (e.g. preterm birth) is needed as biological differences between Black and White women do not account for the disparity in preterm birth rates (Slaughter-Acey et al., 2016). The underlying inequity that Black women in the United States experience affects overall susceptibility to preterm birth and increases exposure to societal risks (e.g. racial discrimination) that lead to medical risk factors that arise during pregnancy.

Racial residential segregation, the extent to which two groups live separately from one another, and neighborhood deprivation have been linked with preterm birth (Massey & Denton, 1988; Mehra et al., 2017, 2019). Neighborhood deprivation is measured using a combination of variables including housing, poverty, racial composition and others (Messer et al., 2006). While the concept of neighborhood disorder has been widely used in research, its definition has evolved over time and there may be disagreement over the extent of the disorder and how that is perceived by its residents (Ndjila et al., 2019). The use of the term “disorder” itself may even convey and/or create harm to those who live in these geographic spaces. Racial residential segregation has been measured using the widely used Dimensions of Segregation, but new measures including the Index of Concentration at the Extremes have begun to capture spatial polarization as well as income and racial disparities (Chambers et al., 2018; Massey & Denton, 1988; Wallace et al., 2019). Individual

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perceptions about neighborhood conditions have been measured using surveys and other quantitative methods but there is limited data that explores segregation and neighborhood disorder qualitatively (Dove-Medows et al., 2020; Giurgescu, et al., 2013).

These quantitative tools are limited in their ability to assess aspects of racism and neighborhood environment in words that belong to the women who experience them. For example, the Perceived Neighborhood Scale measures factors including social embeddedness, sense of community, and satisfaction with neighborhood in conjunction with Census data reporting on those receiving public assistance and male unemployment (Martinez et al., 2002). Without a range of measures, including qualitative approaches, the tools may superimpose concerns that do not necessarily represent the perspectives of those affected by issues in the neighborhood. The purpose of this study was to compare and contrast pregnant, Black women's voices with quantitative measures of racial residential segregation, neighborhood disorder and racial discrimination.

### Methods

#### Design

This study includes a subsample of participants who participated in the Biosocial Impact on Black Births (BIBB) study, an ongoing large mixed methods design study that examines the associations among social stressors, social support, psychological stress and risk for preterm birth among Black women. Using a convergent design for the parent study, participants completed surveys and participated in qualitative interviews.

#### Sample and Setting

Pregnant, Black women were recruited to participate in the parent study from two urban medical centers in the Midwest. Women were eligible to enroll in the parent study if they self-identified as African American or Black, had a singleton pregnancy, and were between 8 and 29

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weeks gestation. Forty-five participants completed the qualitative interview for the parent study.

After preliminary analysis of interview transcripts and quantitative data, cases with significant missing qualitative data (n=9) or inadequate data in key areas (e.g., no data for key codes) (n=8) were not included in the final sample. Responses such as “I don’t know” without additional probing for reasons that include interview length, were not included. One participant experienced pregnancy loss and was not included in the final sample. The final sample for this study included 27 participants who contributed to qualitative interviews.

**Procedures**

Institutional Review Board approval was obtained from Universities and clinical sites. Women who met inclusion criteria were approached by research staff before or after prenatal care appointments. Women who were interested in the study participated in an informed consent process prior to study procedures. The participants were invited to participate in qualitative interviews during their pregnancies as part of the consent process. Women completed surveys on a tablet before or after the prenatal care visit.

The qualitative interviews were conducted from 1-4 weeks after completion of the survey and took place over the telephone with research assistants and recorded digitally. Race concordance was not achieved during these interviews due to personnel availability. Interviews lasted from 20-65 minutes. Breaks during the interviews were offered, but not utilized. Participants were reimbursed with a \$30 gift card for participating in the qualitative interview and \$25 gift card for completing the survey. Data were collected between April and October, 2019.

**Reflexivity**

The members of this research team was comprised of researchers with expertise in qualitative methods, health inequities, neighborhood disorder, and racism. While the larger study team consisted of a diverse group representing multiple racial identities, the four authors identify as

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White, cisgender, and female with knowledge and understanding of the study concepts but not lived experience. This positionality contributed to the overall context of the study including its design, procedures, and analysis. Interviews were conducted by two of the study authors who were trained in qualitative research methods. Rigor was maintained for this study via frequent team meetings and checks with key informants with first-hand experiences of the study concepts and themes.

**Data Collection*****Qualitative Data Collection***

**Racial Residential Segregation.** Racial residential segregation, was explored qualitatively using interview questions. The first author created these novel qualitative interview questions to align with segregation dimensions; no published literature has been found that reflects this topic. Sample questions include: “Thinking about your neighborhood or where you live, how often do you come into contact with people who aren’t Black?” and “What is the racial mix of your neighborhood?”

**Neighborhood Disorder.** Neighborhood disorder is defined as visible cues that indicate a lack of order in a community (Ross & Mirowsky, 1999). Disorder was explored using the BIBB interview guide. These questions include “Can you tell me about any concerns you have about the area where you live?”

**Racial Discrimination.** Discrimination was defined in this study as an exploitative and oppressive phenomenon based on race that operates on multiple levels. It was also explored using questions from the BIBB interview guide including “Can you tell me about any experiences you have had with racial discrimination?”

***Quantitative Data Collection***

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**Racial Residential Segregation.** Residential Segregation was measured using a scale adapted from Jackson that included questions about residential neighborhood and included the item, “When you think about the places where you have lived, gone to school or worked- were mostly Blacks or mostly Whites there?” (Jackson, 1991) Respondents answered on a 5-point scale (All Blacks, Mostly Blacks, About Half Blacks, Mostly Whites, Almost All Whites, and does not apply).

**Neighborhood Disorder and Crime.** Two validated tools were used to measure neighborhood disorder quantitatively. These include the Ross Neighborhood Disorder Scale and a subscale of the Perceived Neighborhood Scale, the Perceived Neighborhood Scale (Martinez et al., 2002; Ross & Mirowsky, 1999). The Ross Neighborhood Disorder Scale has nine items including vandalism and housing conditions and is scored on a 4-point scale (strongly disagree, disagree, agree, strongly agree). The total score ranges from 0-36 with higher scores indicating higher levels of perceived neighborhood disorder. The Cronbach’s  $\alpha$  for the Ross Neighborhood Disorder Scale was 0.92 (Ross & Mirowsky, 1999).

Perceived crime was measured using the crime subscale of the Perceived Neighborhood Scale (Martinez et al., 2002). This subscale has six items on a 5-point scale (e.g., drug use, gangs). The total score ranges from 0-30 with higher scores representing higher levels of perceived crime. Content validity for the Perceived Neighborhood Scale was established with significant negative correlation between neighborhood poverty and satisfaction with neighborhood ( $r = -.35, p < .0002$ ) (Martinez et al., 2002). The tool was reliable among Black women (Cronbach’s  $\alpha = 0.80-0.90$ ) (Giurgescu et al., 2012, 2013, 2015).

**Experiences of Discrimination.** The Experiences of Discrimination (EOD) scale was used to measure perceived racial discrimination. The EOD measures discrimination in nine situations including school, work, and medical care (Krieger et al., 2005; Krieger & Sidney, 1996; Williams et al., 1997). Questions include, “Have you ever experienced discrimination at school? Getting housing? Getting service at a store or restaurant?” Scores on the EOD range from 0-9 with yes=1 and no=0.



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The EOD demonstrated construct validity with self-reported racial discrimination through standard error of mean testing (Krieger et al., 2005). The model showed an excellent fit to the data (CFI = 0.966; RMSEA = 0.069) and had the largest correlation with the discrimination construct on the Williams Major Discrimination Scale (Krieger et al., 2005; Williams et al., 1997). The instrument was reliable in pregnant Black women (Cronbach's  $\alpha=0.79$ ) (Giurgescu, et al., 2017).

**Data Analysis*****Qualitative Data Analysis***

In a process outlined by Elo & Kyngäs, content analysis was performed (2008). [The interviews were coded using NVIVO software (Version 11, 2015)]. Deductive analysis using the components of segregation were used. For example, all of the interview questions that are related to the segregation dimension exposure were coded as such. These codes were grouped together and analyzed across multiple or within individual codes. An inductive approach was also used. Interviews were reviewed several times and codes were created (Elo & Kyngäs, 2008). These codes were categorized into groups according to related interview questions. Special attention was paid to tone (during recorded interviews) and other latent content to ensure that categories and groups were accurate and to not leave out any important observations (Elo & Kyngäs, 2008). Double coding was performed for 48% of the transcripts (EDM, LM) in order to enhance data quality and ensure consistency among application of the codes as described by Guest et al. (2012) Coding discrepancies were discussed until agreement was reached. (Guest et al., 2012)

***Quantitative Data Analysis***

Survey data were collected using the Qualtrics Research Suite, a web-based platform for creating online surveys. Data cleaning took place as a staged process that includes screening,

diagnosis, and editing (Van den Broeck et al., 2005). Descriptive statistics including frequencies, means, and standard deviations were used to describe the sample and participant scores on each of the quantitative measures.

### ***Mixed Methods Data Analysis***

Interview data about racial residential segregation, neighborhood disorder and discrimination were coded according to interview questions and concepts. Matrices were created using both qualitative and quantitative data. Within-case analysis was conducted to assess for congruence between the qualitative data and quantitative data. Content analysis was also used to analyze patterns within each of the major study constructs (Hsieh & Shannon, 2005). Table 1 shows the qualitative and quantitative measures for each concept.

Concepts were compared and contrasted using the qualitative and quantitative data. This was done to assess agreement and discordance between the data source and to inform patterns in the data (Ayres et al., 2003). Each matrix focused on a study concept (e.g., neighborhood disorder, racial discrimination) and incorporated both qualitative and quantitative data. The matrices were used to perform a within-and-across-case analysis. Annual household income and education level were reported to further describe each case. Each case included qualitative and quantitative data that addressed each major study concept as well as other descriptive data for each case. Each case was examined as a whole and then comparisons were made within and across each case. Descriptive analyses were performed for the three scales and the segregation survey item. Alignment or discordance for each concept was determined for each study concept. Alignment was determined if the qualitative content was congruent with the survey item or score. These are further described under each concept section.

## Results

### Sample Characteristics

A sample of 27 women were included in the analysis. The participants were 18-45 years of age and 12-29 weeks' gestation at the time of the interview. Fifty-two percent of the participants had an annual household income of less than \$10,000. Most women (70%) reported being never married. Three women (11%) were married and four women (15%) were living with a partner. Approximately 60% of our sample had less than or equivalent to a high school education. Table 2 shows the sample characteristics.

### *Racial Residential Segregation*

**Survey Item vs. Segregation Interview Question.** Almost half of the women (48%) responded "Mostly Blacks" to the survey item "When you think about the places where you have lived, gone to school or worked" (Jackson, 1991). The second most common answer was "About Half Black" (30%). The remaining participants (22%) answered, "All Black" (2 participants) and "Mostly Whites" (3 participants). One participant had missing data for this item.

Compared to the interview question, "What is the racial mix of your neighborhood?" 13 (48%) participants had responses that were consistent with this quantitative measure of segregation, and 10 (37%) participants answered diverged from the quantitative data. There were missing data for four participants. One participant, who responded on the survey that her neighborhood was "Half Black" had the following response during the interview:

It's mixed over everybody...Black and White mixed up, yeah. I don't know, I'm not friendly, so I don't know who all is ... I don't know my, uh, neighbors or like that that well...Yeah, I don't, I don't socialize.

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Another participant said her neighborhood was “Mostly Black” on the survey. During the interview she described, “I would say everything. I mean, I’ve seen all kinds of people around here. I’ve seen Hispanics, I’ve seen Blacks, I’ve seen White people. I see everybody around here.” Another participant described her neighborhood as “Half Black” on the survey but during the interview described it as “Pretty much all Black.”

***Neighborhood Disorder***

**Ross Neighborhood Disorder Scale vs Neighborhood Interview Question.** Scores on the Ross Neighborhood Disorder Scale ranged from 9 to 29 and the mean score was 19. Seven participants scored  $\geq 24$  (top 75<sup>th</sup> percentile for this sample) and 10 women had scores  $< 16$  (lower 25%). Fifteen (56%) participants had the quantitative data consistent with the qualitative data. Of the seven participants in the top 75<sup>th</sup> percentile, six had scores that were consistent with the qualitative data.

A participant who had a high score on the Ross Neighborhood Disorder Scale (29) indicating higher levels of perceived neighborhood disorder, described her neighborhood:

I don’t let my kids go outside and play, ‘cause I never know what’s going to happen...I’m one of them parents where if I don’t go, my kids don’t go...I don’t let my kids go out there, ‘cause it’s always something going on. And some people don’t watch their kids, they just let them outside, and it be a lot of picking and fighting and causing problems, so. Yeah, I don’t like that.

Another participant had a high score on the Ross Neighborhood Disorder Scale (26) and described her neighborhood similarly:

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They always...fighting, it's always shooting, you always got to duck some bullets...

you could be walking through the store and somebody walks up to you, ask if you got drugs, like that...

Another participant also had a high score on the Ross Neighborhood Disorder Scale (27), but discussed how she still felt safe in her neighborhood:

There are people out there who commit certain crimes, but that's anywhere in the world. You can...be stabbed to death if you talk to somebody...At the end of the day, I'll probably feel unsafer somewhere else where I don't know the environment, whereas I do know the environment and what to expect over here.

**Perceived Neighborhood Crime Scale vs. Neighborhood Concern Interview Question.**

Scores on the Perceived Neighborhood Crime scale ranged from 6 to 23, and the mean was 13.

Seven of the participants had scores  $\geq 18$  (top 75<sup>th</sup> percentile for this sample) and nine had a score  $\leq 8$  (lower 25%). Eighteen (67%) participants had Perceived Neighborhood Crime scores that were consistent with qualitative data that addressed crime, and eight (30%) participants had Perceived Neighborhood Crime scores that diverged from the qualitative data. Of the participants with scores in the top 75<sup>th</sup> percentile, most (86%) were consistent between the two approaches. Some participants described unsafe conditions but accepted these conditions as a part of their daily reality and didn't always see the crime in their neighborhoods as a problem.

One participant had a high score on the Perceived Neighborhood Crime Scale (21) and spoke similarly about her neighborhood during the interview:

The area where I live at is terrible. Shit, I mean, it's terrible. It's any urban community...It's just any type of community, it's just bad. Killings, whatever

happens, happens. Shootings, killings, everything. Robberies. I mean, I'm, I'm used to it. I grew up like that, so.

Another participant had a score (18) that was consistent with the qualitative data:

- If you look for it, you'll see a lot of drug dealers. Just stuff that you wouldn't want your children around if you actually look for it. But I don't know, it's, like I said, it's a mixture, so you have to be careful on what street you go on.

Another participant also had a high Perceived Crime Score (20) but described her neighborhood differently during the interview:

When there [is] people living in broken environment, living in the ghetto system...I'm quite sure there's drugs going on in the neighborhood. But you can subject yourself to what you want to be subjected to or not...There can be drugs in the neighborhood, but it has nothing to do with your house.

Another participant had a low score on the Perceived Neighborhood Crime Scale which was consistent with her response during the interview. "Um, there's really no concerns because like it is a nice neighborhood, you know, you don't have to worry about people stealing stuff off your porch or breaking in."

### ***Experiences of Discrimination***

**Experiences of Discrimination Scale Vs. Discrimination Interview Question.** Eleven of the 27 participants (41%) scored zero on the survey, which denotes that they reported no lifetime experiences of discrimination among any of the 9 domains on the scale. Eight participants (30%) responded during the qualitative interview that they have never personally experienced discrimination. Eleven participants (41%) reported at least one form of discrimination on the survey.

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Sixteen participants (60%) responded during the interview that they had experienced at least one form of discrimination.

Twenty of the 27 participants (74%) had perceptions about discrimination that were consistent in both qualitative and quantitative data. Of the seven participants who responded discordantly on the survey and during the interview, five participants (71%) recalled an experience of discrimination during the interview but scored a zero on the EOD. The remaining two participants indicated on the scale that they had at least one experience of discrimination but when asked during the interview if they had ever experienced discrimination, both replied, "No."

One participant scored a zero on the EOD, indicating that she did not report any experiences of discrimination on the scale. However, during the interview, she shared:

I was shopping, and they, it was a couple White guys in there...And they were watching me and watching me and watching me, because I was Black, I felt like, because they wasn't watching the White people, and I...witnessed that for myself. Like as I looked, and as I watched, I seen, you know, I seen them watching me and not watching them.

Similarly, another participant, also had score of zero on the EOD but explained:

Just like go to the gas station or, you know, beauty supply, they think you going to steal, I guess 'cause you Black...That happens all the time in urban community...I don't care how much money you have in your pocket. It don't matter if you Black, White, pink, purple. If you not of their color, they're going to watch you, they're going to be on your heels to see if you stealing...

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Another participant had a EOD score of 4, which indicates experiences of racial discrimination in multiple domains. However, when prompted during the interview she shared the following exchange:

Interviewer: Have you ever had any experiences, personal experiences, with racial discrimination?

Participant: No.

Interviewer: Nothing? Never?

Participant: Never.

### Discussion

The purpose of this study was to compare and contrast racial residential segregation, neighborhood disorder and crime, and experiences of discrimination as reported in qualitative interviews by pregnant Black women with quantitative data of the concepts from surveys.

Consistency between the qualitative and quantitative data varied among the study participants.

There was no concept that had 100% alignment between the two approaches. Racial discrimination had the most (74%) alignment between the two approaches.

Preterm birth has been linked with racial residential segregation, neighborhood disorder, and racial discrimination (Alhusen et al., 2016; Giurgescu, et al., 2017; Mehra et al., 2017). While we do not report on preterm birth as an outcome measure here, these findings contribute to the understanding of perspectives about these concepts among the population of women who are most likely to experience preterm birth compared with their White counterparts (Martin et al., 2021).

There was consistency among almost half of the responses to both of the survey items and the interview question about racial residential segregation. The qualitative data about racial residential segregation helped provide a more robust understanding of how the participants in this study

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perceived their environment beyond one survey item. At times, the participants offered more than just a percentage to describe their environment by adding how they not just perceived the racial make-up but also how they interacted with their neighborhood environment. With the majority of work that examines the relationship between preterm birth and racial residential segregation using large-scale data, these insights offer a deeper look at how the participants in this sample experience segregation (Mehra et al., 2017).

Likewise, neighborhood disorder has been associated with preterm birth (Giurgescu, et al., 2012, 2017, 2021). Here, our results build on that understanding. While there was consistency between the two approaches, the qualitative data provided insights about how the participants felt about the disordered conditions where they lived. It may be that the lived experience has a different impact than the scores reflecting the supposed objective construct. While several participants described disorder, they went on to explain how this disorder was not particularly bothersome. This is important as it helps to shed light on the potential mediators that link between neighborhood disorder, crime, and preterm birth. Stress has been suggested as a mediator between neighborhood disorder and preterm birth, but more work is needed to understand how perceptions about neighborhoods impact on outcomes (Giurgescu, et al., 2021). Community-based resources that support birthing families through doulas and other community-based health support may also mediate the relationship between neighborhoods and pregnancy health (Davis, 2019; Mullings & Wali, 2001).

The mixed methods analysis highlights how racial residential segregation, neighborhood disorder and crime, and experiences of discrimination can be perceived differently using a single approach (quantitative or qualitative) to the data. Racial residential segregation, neighborhood disorder and crime, and experiences of discrimination for several participants, as discussed during the interview, required a much more complex answer than what was available on the survey.

While some reflections about the study concepts may be accurately reflected by survey items and scales, more can be understood about these relationships by adding qualitative measures. The qualitative and quantitative approaches differed not only in the data being collected but also in how the participants interacted with the study. This difference in the mode of data collection may also have influenced what was learned. The quantitative approach was more private. The participants completed surveys on tablets while they were alone or with one companion that they had invited to their prenatal care appointment. In contrast, the telephone interviews, while private, were conducted with another person and thus embedded within that approach is a personal interaction that could potentially influence the discussion.

A reflexive process takes place between the interviewer and the participant during interviews where both the interviewer and participant bring personal aspects to the interview (Braun & Clarke, 2012). Both influence data collection. In this study, there could be a perception of power on part of the interviewer. In contrast, the participants may perceive the interviewer to be very far away from the lived experience and interview topics. The concepts that were explored in this study have multiple realities and perspectives within and how these are discussed are often just as or more significant than what is discussed.

Differences and similarities between the qualitative and quantitative approaches used in this study call into question how the participants interacted with racial residential segregation, neighborhood disorder and crime, and experiences of discrimination. The mixed methods approach gives some insight into what measures did and did not resonate with the participants. For example, the participants who disclosed an experience of discrimination on the survey but not during the interview suggests that they made a choice to not discuss this during the interview. The participant who had discordant responses about discrimination between the two approaches made a conscious choice not to discuss her experiences during

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the interview. The interviewer double checked her response which could have been perceived as casting doubt about her reality and accentuating the multiple power dynamics. Again, this may be attributed to the lack of racial concordance between the interviewer and the participants. A recent commentary discussed the need for disciplinary critique of research questions and measures (Hardeman & Karbeah, 2020). The findings from this mixed method study can help advance that critique by comparing and contrasting the data within each approach. Almost half (48.1%) of the participants in this sample were 24 years or younger. Perceptions of discrimination may also change with age. Prior work in this area found that younger women were less likely to endorse racism (Slaughter-Acey et al., 2019). Finally, findings such as ours may drive the development of new quantitative measures. That there were no concepts in this mixed methods analysis that were completely aligned shows how scales that have been used to assess these concepts may not be accurately capturing the entire experience of pregnant, Black, women.

This study was not without limitations. Interviewers in this study were not matched with participants in terms of race. This may have resulted in participants being less forthcoming during their interviews. However, as the interviews were conducted over the phone, the partial anonymity (faces, not voices) could have helped the participants feel more open even if they perceived the race discordance. More research would be needed to determine the full impact of the race discordant and phone processes. This analysis does not explore the relationships between income, relationship status, or gestational age at the time of first interview.

### Conclusion

Qualitative research is designed to describe complex phenomena that are not easily quantified (Streubert & Carpenter, 2011). Comparing the two approaches to the study concepts shows how they may generate different responses. It is also important to understand what is not

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being said. The discrimination questions demonstrated how not all participants were comfortable disclosing their experiences. The two participants who reported at least one domain of unfair treatment on the Experiences of Discrimination scale but did not disclose any experiences of discrimination could indicate that they were not comfortable doing so at the time of the interview. This information is helpful when designing future research with groups that have not been given the chance to share their experiences in their own words.

Qualitative interviews also provide a safe container within which participants can reflect on their own personal stories, patterns, and narratives (Lakeman et al., 2013). While they may not have always felt comfortable sharing aspects of their lives, the women in this study had an opportunity during the interviews to reflect on situations and circumstances in their lives that they may have otherwise had an opportunity to discuss. Here we present how different approaches help elicit important health information that public health nurses may use to provide comprehensive, holistic nursing care.

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**Table 1***Mixed Methods*

Concept	Interview Guide Question	Quantitative Measure
Racial Residential Segregation	What is the racial mix of the neighborhood where you live?	Segregation Survey Item
Neighborhood Disorder and Crime	Can you describe the area where you live?	Ross Neighborhood Disorder Scale <sup>1</sup>
	Can you tell me about any concerns you have about where you live?	Perceived Crime Scale <sup>2</sup>
Racial Discrimination	Can you tell me about any experiences you have had with discrimination?	Experiences of Discrimination Scale <sup>3</sup>

<sup>1</sup>Ross Neighborhood Disorder Scale by Ross & Mirowsky (1999)

<sup>2</sup>Perceived Crime Subscale of Perceived Neighborhood Scale by Martinez, et al. (2002)

<sup>3</sup>Experiences of Discrimination Scale by Krieger, Smith, Naishadham, Hartman, & Barbeau (2005)

**Table 2***Demographic characteristics of the participants (N=27)*

<b>Characteristics</b>	<b>n</b>	<b>Percent</b>
<i>Maternal Age (years)</i>		
18-24	13	48.1
25-30	6	22.2
31-35	6	22.2
36-45	2	7.4
<i>Annual Household Income</i>		
less than \$10,000	14	51.9
\$10,000 - \$19,999	4	14.8
\$20,000 - \$29,999	6	22.2
\$30,000 - \$39,999	2	7.4
\$40,000 - \$59,999	1	3.7
<i>Relationship/Habitation Status</i>		
Divorced	1	3.7
Living with Partner	4	14.8
Married	3	11.1
Never Married	19	70.4
<i>Education Level</i>		
Bachelor's Degree	1	3.7
Graduated High School or GED	14	51.9
Less than High School	2	7.4
Some College	9	33.3

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Vocational/Technical Training	1	3.7
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*Gestational Age at Interview*

12–19 weeks	19	70
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20–29 weeks	8	30
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