The Role of Social Support in Determining Perinatal Anxiety and Depression Outcomes for Black and Latina Women

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Racial and ethnic minoritized groups in the United States face higher maternal morbidity and mortality rates and elevated risks for postpartum depression and other perinatal mood disorders. Social support (SS) protects against perinatal mood disorders, particularly for Black and Latina women. This study aimed to determine if having two or more SS people was related to perinatal anxiety and depression outcomes in a convenience sample of Black and Latina women. Mothers ($n = 51$) with children between ages zero and three completed a socio-demographic and mental health status (PHQ4) survey. A two-way ANOVA was performed to analyze the effect of high SS and race on mental health scores. There was no significant difference in mental health scores for those with two or more social supports versus those with one or fewer social supports ($p = 0.4865$). Two-group comparison generally showed that mothers with high SS had a lower mental health score ($M = 0.39$) and mothers with low SS had a higher score ($M = 0.60$). There was a significant relationship between SS and both race and age ($p = 0.0498$, race, $p = 0.0010$, age). Therefore, this study found no relationship between having two or more SS people and perinatal anxiety and depression outcomes. Future studies should examine how other contextual factors impact SS and mental health outcomes for Black and Latina mothers.
Keywords: maternal morbidity, perinatal depression and anxiety, Black and Latina women

Black and Hispanic mothers in the United States face higher maternal morbidity and mortality rates and more elevated risks for postpartum depression than their white counterparts (Gennaro et al., 2020; Howell, 2018). Black mothers are three times more likely to die from birth to their child's first year of life, and Latina mothers are 2.5 times as likely to experience the same outcome (Hoyert, 2023). Social support (SS) protects against perinatal mental health issues among these groups (Pao et al., 2019).

Maternal Health Disparities for Black and Latina Women

Severe maternal morbidity (SMM) has increased by 200% in the United States from 1993 to 2014 (Liese et al., 2019). SMM, or unintended consequences of pregnancy that could pose short- or long-term health issues, are 50 to 100 times more common than maternal death (Liese et al., 2019). SMM rates disproportionately affect racial and ethnic minoritized groups in the US, and this disparity has continued to widen over the last century (Howell, 2018). Risk of pregnancy-related deaths in some regions of the U.S. for Black women in particular is similar to risk for women in low- and middle-income countries (Howell, 2018). Ethnically/racially minoritized women are disproportionately affected by multiple pregnancy complications. Black and Hispanic women have a 50% greater risk of having a baby at low birth weight and a 20% greater risk of having a preterm baby (Borrell et al., 2016; Gennaro et al., 2020).

Black women have a significantly higher maternal mortality rate than their White counterparts. Approximately 42.4 deaths occur out of every 100,000 live births for Black women as compared to 13.0 deaths per 100,000 live births for White women (Center for Disease Control, 2008). Similarly, Latina women are 20% more likely to experience severe maternal morbidity than non-Hispanic White women. The risks that Black and Latina women experience in the perinatal period are driven by the numerous manifestations of structural racism. Ethnic/racial minoritized groups have unequal access to healthcare, education, housing, stress, and implicit bias (Liese et al., 2019). Racism harms health through physical, social, and economic pathways along with maladaptive coping strategies and stereotype threats (Bailey et al., 2017). Racism is considered a social stressor, which leads to neurobiological and behavioral responses that impact mental and physical health, while chronic exposure to racism elevates the changes occurring in the brain and metabolism in response to prolonged stress (Bailey et al., 2017). Poor birth outcomes have been linked to racial discrimination and psychosocial stress through early health deterioration or weathering (Bediako

et al., 2015). *Weathering* is defined as the cumulative impact that repeated exposure to social or economic adversity and marginalization have on health (Geronimus et al., 2006). When underserved groups perpetually practice high-effort coping strategies in response to acute and chronic stressors, physiological deterioration results (Geronimus et al., 2006). Therefore, maternal and child health are intertwined with the mother's experiences of racial discrimination and chronic stress that are unique to women of color.

Perinatal Mental Health Outcomes in Black and Latina Women

Pregnancy can encompass a period of elevated stress, anxiety related to the pregnancy or fetus, and pain during labor and birth, posing significant stress on the body that increases vulnerability to mood disorders (Alfayumi-Zeadna et al., 2021). The general population has a postpartum depression prevalence of 10-15%, which is disproportionately lower than rates for minoritized communities (Pao et al., 2019). For Latina women, the prevalence of perinatal depression is estimated to be between 54.2-60% (Center for Disease Control, 2008; Lucero et al., 2012; Shellman et al., 2014). Similarly, over 40% of Black women experience postpartum depression, over double the rate of the general population (Hernandez et al., 2022; Wisner et al., 2013). Furthermore, women of color experience more serious and chronic symptoms of depression than White women, despite meeting comparable criteria for mental illness (Guintivano et al., 2018; Mukherjee et al., 2018; Parker, 2021). Black and Latina women are more likely to experience complications throughout their pregnancies, making the provision of perinatal mental health screenings and intervention services especially important for these groups.

Social Support Determines Perinatal Anxiety and Depression Outcomes

Although all pregnant women, especially ethnic or racial minorities, are at risk of perinatal mental health disorders, risk is substantially reduced when protective factors such as social support are present. Social support, or psychological and material resources provided by friends, family, and romantic partners, has been found to protect against perinatal mental health disorders (Cohen & Wills, 1985). For the purposes of this study, social support is defined as the number of support people a person reports having in their life (Shiba et al., 2016). A mother's satisfaction with her social support is dependent on maternal needs and expectations that vary across the perinatal period; thus, the quality of and satisfaction with social support is crucial (Li et al., 2017). Perceived social support is associated with stress, coping, and distress/depression. Both lack of positive support and presence of negative interpersonal relationships have been linked to depression (Coyne & Downey, 1991; Mendelson et al., 2013).

Numerous studies have focused on the protective nature of social support, finding that increased social support and greater satisfaction with the support protects against symptoms of anxiety and depression (Alfayumi-Zeadna et al., 2021; Coburn et al., 2016; Lefkovics et al., 2018; Li et al., 2017; Pao et al., 2019; Razurel et al., 2017). Similarly, lowered social support or dissatisfaction with support significantly increases risk of perinatal depression and raises the levels of depressive/anxious symptoms experienced (Nisar et al., 2020; Ohara et al., 2017; Shakeel et al., 2018; Sheng et al., 2010; Terada et al., 2021; Umuziga et al., 2020; Verreault et al., 2014; Zhou et al., 2021). For example, having a lower number of support people during the perinatal period significantly predicted scores on measures of depression and mother-infant bonding in a prospective study of 494 women (Ohara et al., 2017). Social support has been found to have a direct relationship to perinatal depressive/anxious symptoms, postpartum depression, and other mood outcomes (Ngai & Chan, 2012; Racine et al., 2018).

Based on research findings that suggest social support directly predicts symptoms of anxiety and depression during the perinatal period, social support must be discussed during perinatal visits to better screen for mental health risk. Assessing support in primary care visits during the perinatal period may allow providers to link mothers of highest need with relevant community resources (Barr & Caruso-Mcevoy, 2018).

Importance of Social Support Among Black/Latina Women

Many studies show that the majority of research conducted on social support and mental health has been performed in predominantly White samples (Garthus-Niegel et al., 2022; Wenzel et al., 2021); however, social support is extremely relevant to the well-being of Black and Latina women. In collectivistic cultures, significant cultural values include social connection, intergroup harmony, connectedness, and interdependence (Boroş et al., 2019). Collectivistic

cultures also place more weight on close relationships among family, friends, and community members than Western cultures, which are typically individualistic (Her & Joo, 2018). Research on racial/ethnic minorities in the U.S. indicates that social support may be used in order to reduce the psychological distress that discrimination causes, especially for those from collectivist cultures (Steers et al., 2019). Both Black and Latinx communities rely on close social ties for support and have reported stronger and more supportive relationships with family, friends, and others than White individuals do (Ai et al., 2014; Erving, 2018). When family stress is present, Latinas may be particularly vulnerable during pregnancy based on the violation of cultural expectations about relationships and the role of the family (Coburn et al., 2016).

Significance, Hypothesis, and Study Questions

In Washington, D.C., women die from pregnancy-related causes at a higher rate than anywhere else in the country, at 36 deaths per 100,000 live births (MedStar Health, 2021). African American women are three times more likely to die of pregnancy-related causes than White women. Washington, D.C.'s African American infant mortality rate is the highest in the nation, at 59.7 deaths per 100,000 live births (Roberts et al., 2020). However, White women in D.C. have the lowest maternal mortality ratio in the US; thus, adequate maternal care, which includes mental health support, is not equally available to all residents in the District (Roberts et al., 2020; Zubatsky et al., 2018). Despite the existence of high-quality maternal healthcare in D.C., racial disparities in access to care put Black and Latina women at risk of severe maternal mortality. In response to the severe maternal mortality crisis in D.C., the D.C. Safe Babies, Safe Moms (SBSM) initiative delivers pre-conception, pregnancy, delivery, postpartum, and family care up to a child's third year of life. This study aimed to assess maternal mental health and social support in the context of primary care visits for two critically underserved groups of women. For the purposes of this study, symptoms of anxiety and depression as reported on a self-report measure constituted measurements of maternal mental health. Exploring the role of social support in perinatal anxiety and depression outcomes can facilitate better understanding of the relationship between social support and mental health during and after pregnancy. Our objective was to determine if a

significant relationship between social support and perinatal anxiety and depression outcomes exists. We hypothesized that women who had two or more social support people in their lives would report fewer symptoms of anxiety and depression after giving birth. This is one of the first studies examining D.C. SBSM outcomes and the first of this regional sample to evaluate social support and anxiety and depression outcomes.

Method
Sample and Procedures

This study was part of standard clinic care encompassed within a larger program supported by the SBSM/HealthySteps program at a large health system on the East Coast. Institutional Review Board Approval was obtained through the Georgetown University IRB on December 23, 2021. This study includes participants who attended well-child checks for their children during the first 6 months of enrollment into the SBSM/HealthySteps program. The convenience sample initially consisted of 58 Black and Latina mothers with infants or toddlers ranging from age zero to three who received their care at a primary care clinic within the hospital system. Mothers were invited to participate in this study during their child's well-child checks and primary care visits as part of standard of care procedures. Overall primary care screening and assessment for children occurred by physicians, and mothers were screened for various social determinants of health issues, mental health concerns, and social support status by mental health faculty and staff.

Families were screened using the Family Health Survey (FHS), a demographic survey assessing the social determinants of health. The FHS was administered depending on the child's age, at one month, 16 months, 24 months, and 36 months. This survey also assessed social support and mental health status. The survey took approximately 15 minutes to complete. The practitioner explained what the survey included and why it was being given so that the care team could better meet the patient's needs. When this study launched, the FHS was not yet available online. The final 18 participants in this study completed the survey online once it was made available. For participants completing the electronic survey, a link to the survey was generated and sent to the participant automatically when their child was scheduled for a visit; they would then click on the link to complete the

survey. Online surveys could be completed outside of well-child checks, allowing participants to complete the survey at home. For surveys completed by hand for parents who spoke Spanish, an interpreter assisted with administering the survey in Spanish over the phone. Surveys administered on paper were filled out during the well-child checks within the clinic.

We report how we determined all data exclusions, sample size, and measures in this study in compliance with reporting standards for non-experimental quantitative research (American Psychological Association, 2020). This study is consistent with the Transparency and Openness Promotion (TOP) Guidelines at level one for all eight aspects (Nosek et al., 2023). All data, analysis code, and research materials are available by emailing the corresponding author. This study's design and its analysis were not pre-registered.

Measures

Demographics

Socio-Demographic Characteristics. Socio-demographic information was assessed through the Perinatal and Family Health Survey, which included information such as age, race, gender, educational attainment, employment status, and living arrangements. Race was assessed by asking participants to select one of the following racial groups that they identified with, which included the following options: Black/African American, White, Asian/Asian American, American Indian/Alaskan Native, Native Hawaiian/Pacific Islander, multiracial, or other race. Ethnicity was assessed by asking participants to select either Not Hispanic/Latino/a or Hispanic/Latino/a.

Perinatal and Family Needs

Perinatal and Family Needs. In order to determine family needs, the FHS was administered. The full survey assessed social determinants of health, experiences with racism, and other aspects of the family's current social and health needs. For the purpose of this study, only the measures of social support and mental health were utilized in analyses. The independent/predictor variable was social support, measured by a mother's open-ended answer to the question "Who are your most important support people?" When two or more people were listed, this was counted as "yes," or having two or more social support people. Having fewer than two support people listed was counted as "no." The dependent variable was experiences with anxiety and depression symptoms after giving birth.

For the purposes of this study, anxiety and depression outcomes were measured by a combination of 5 items from the Personal Health Questionnaire-Two (PHQ-2), PHQ4, and GAD7 (Kroenke et al., 2009), and the ninth question about self-harm on the PHQ-9. Participants rated four statements on a 4-point Likert scale ranging from 0 (not at all) to 3 (nearly every day); the first two statements comprise the anxiety score (PHQ1 and PHQ2), and the remaining statements comprise the depression score (PHQ3 and PHQ4). Statements measuring anxiety included "feeling nervous, anxious, or on edge" and "not being able to control or stop worrying." Statements measuring depression included "feeling down, depressed, or hopeless" and "little interest or pleasure in doing things." Scores were summed to yield a total mental health outcome variable, which comprised the fourth variable of the mental health score. The fifth question asked participants if the thought of hurting themselves has occurred to them in the last seven days; the yes/no answer choices were coded as yes = 1, and no = 0. Internal consistency of the PHQ4 is 0.82 (Mendoza et al., 2022).

Analytical Strategy

All analyses were conducted using R 4.1.3. Statistical significance was set as $p<0.05$. Seven mothers with missing values for either social support or mental health outcomes were removed from the dataset: two participants lacked social support information, three participants lacked data for all PHQ questions, one participant lacked data for PHQ3, and one participant did not have data for PHQ4. After removing seven participants from the analysis due to missing data, we had a final sample of $n = 51$ used in analyses. The mean mental health scores, anxiety scores, and depression scores were computed and compared between mothers with and without social support using the two-sample t-test.

Fisher's exact test was used to compare the proportion of race between groups, the proportion of educational levels between groups, the proportion of mothers who have completed a physical exam or well-woman's exam in the last year between groups, and the proportion of relationship status between groups. Pearson's chi-squared test was used to compare the proportions of mothers who worked outside the home between groups. The two-sample t-test was used to compare age between groups. A two-way ANOVA was performed to analyze the effect of having high social support and race on the mental health score. Two-way ANOVA is

suitable for assessing the impact of categorical independent variables (social support and race) on a continuous dependent variable (mental health scores). Two-way ANOVA was chosen for its ability to highlight main effects, vital for understanding individual contributions to observed variations in mental health scores.

Results
Demographic Characteristics of Participants
The demographic characteristics of the study cohort are reported in Table 1. Thirty-one mothers had two or more social support people, and 20 mothers had one or fewer social support people. Thirty-seven percent of the sample were Black women, 43% were Latina, and 18% were categorized as "Other" races. There are two mothers whose race was both Black and Latina. One mother in the low social support group was missing a race value; one mother in both social support groups were missing values for physical exam status. Additionally, 24 caregivers were missing values for age.

On average, mothers with high social support were 28.47 years old (SD = 4.45), and those with low social support were 35.5 years old (5.02); there was a statistically significant difference between age (p = 0.0010). There was a slightly statistically significant difference between races (p = 0.0498). The three racial groups were not uniform in social support reported. There was a similar distribution of Black and Latina mothers across the two social support groups; for the other race group, there were more people with no social support than with two or more social supports.

The results of the two-way ANOVA are presented in Table 2. Simple main effects analysis showed that the levels of race did not have a statistically significant effect on the mental health score (p = 0.4942). Simple main effects analysis showed that the levels of high social support did not have a statistically significant effect on the mental health score (p = 0.2439). We also verified that there was no statistically significant interaction between the effects of high social support and race (p = 0.5802, not included in Table 2).
Relationship Between Social Support and Perinatal Mental Health Outcomes
The two-sample t-test was run to compare mental health scores between the two groups; the means, standard deviations, and p-values for the overall mental health score and stratified by each question are reported in Table 3. Cronbach's Alpha for the study

was α = 0.378. In this study, the maximum score on the PHQ-4 for our sample was four. Mothers in our sample did not endorse thoughts of self-harm; thus, the p-value for the self-harm question measure is not applicable as the mean score is zero. The two-sample t-test for the mean mental health score across the two groups yielded a p-value of 0.4865. Thus, there is no statistically significant difference between the mean mental health scores of mothers with and without social support. The results of the two-sample t-test for anxiety and depression similarly did not demonstrate statistical significance. There was no difference between anxiety scores for those with and without social support (p = 0.4872), and no difference between depression scores for those with and without social support (p = 0.7137). The distribution of responses to each mental health question measure for both social support groups is illustrated in Figure 1.

Discussion
This study aimed to determine if having two or more social support people was related to anxiety and depression outcomes after giving birth in a sample of predominantly Black and Latina women within the context of primary care visits. This study is one of the first to examine   outcomes from the D.C. SBSM initiative, which delivers perinatal and family care up to a child's third year of life, and the first of this regional sample to evaluate social support and anxiety and depression outcomes. We found no significant difference in mental health scores for those with two or more social supports versus those with one or fewer social supports. Our hypothesis was that women who had two or more social support people in their lives would report fewer symptoms of anxiety and depression after giving birth. We expected to find a significant relationship between social support and perinatal anxiety and depression based on prior literature in largely White populations, but did not find a statistically significant difference between anxiety and depression symptoms of mothers with high versus low social support. Despite lacking statistical significance, two-group comparisons generally showed that mothers with two or more support people had a lower mental health score, and mothers with one or fewer support people had a higher mental health score (Figure 1). This general trend must be interpreted with caution due to high variability (high standard deviation) in both groups.

It is important to continue discussing mental health and social support in primary care visits with Black and Latina mothers. Practitioners must recognize that minoritized communities often under-report mental health struggles for a variety of reasons. A study found that African Americans' recent experiences of discrimination predicted unique variance in beliefs about mental health problems and higher concerns about stigma (Williston et al., 2019). Since mental health concerns may be viewed as a point of stigmatization, study participants may have hesitated to disclose mental health symptoms in fear of being further discriminated against (Williston et al., 2019). For many Latina individuals, psychological distress often manifests physically (e.g. shortness of breath, elevated heart rate); thus, Latina participants may not report symptoms on the PHQ-4 due to the lack of somatic symptom assessment (Abarca et al., 2022). Additionally, Latinx cultural constructs such as "susto" or "nervios" refer to somatic symptoms experienced due to significant life stressors; thus, participants may not report symptoms as these words are not directly translated on the Spanish version of the PHQ-4 (Abarca et al., 2022; Matías-Carrelo et al., 2003).

Of further note is the significance of family ties and collectivism when discussing social support and mental health in Black communities in particular. Seminal work posits that Black families' strong ties provide a buffer against the mental health implications of structural and systemic disadvantages (Stack, 1975). Current research has continued to demonstrate that Black Americans' mental health is associated with perceived closeness to family and friends such that family closeness is associated with lowered odds of 12-month major depressive disorder among African Americans (Taylor et al., 2015). Outside of family dynamics, Black Americans rely on support from church members and fictive kin networks. Black Americans attend church more frequently than White Americans and rely more on loosely defined networks of family that go beyond biological relatives. The utility of fictive kin networks for Black individuals provides an important source of resilience and, historically, an adaptive response to economic difficulties (Chatters et al., 1994; Chatters et al., 2009; Roxburgh & MacArthur, 2020; Stack, 1975).

Our study found a difference between the two social support groups in terms of race, where those in the Other race/ethnicity category experienced less social support than Black and Latina participants. Black and Latina mothers were distributed similarly across the two groups, whereas the Other race/ethnicity category had a larger ratio of participants in the one/no social support group. However, we did not find a statistically significant interaction between race and social support that impacted mental health scores. Limited prior research generally shows that racial and ethnic minority groups tend to report lower levels of social support, but our study had more Black and Latina participants with high social support than the Other category, which included White participants (Roxburgh & MacArthur, 2020). Thus, likely due to our racially diverse sample, we found that our Other group participants had lower social support. Prior literature has shown that, despite Black individuals reporting less closeness in friendships, this type of social support is more salient for Black than for White participants (Roxburgh & MacArthur, 2020). Minoritized groups often place high value on things like family, collectivism, and interdependence; thus, because Black individuals in particular have highly interconnected cultural beliefs, they may be more susceptible to the effects of social support (Assari & Lankarani, 2018).

In a prior study, the associations between familialism with social support and stress were larger for Latina women than for White women (Campos et al., 2008). Latinos also report greater reliance on and disclosure to family than to friends compared to Whites and Asian Americans; similarly, their friend support significantly predicted mental health service utilization (Chang et al., 2014). Since Black and Latina women may value interpersonal relationships more than White participants, placing unique emphasis on their friendships and family ties compared to Whites, they may be more likely to have more social support.

There were significant age differences between the two social support groups. On average, mothers with high social support were younger than those with low social support. This may be partially due to how different age groups seek out social support. For example, prior research has found that older adults sought less explicit social support, particularly instrumental social support, despite using a similar amount of implicit social support during stressful experiences (Jiang et al., 2018). Older adults were more worried about social costs than younger adults, and thus sought less explicit social support. Additionally, research has shown that

perceived social support is most strongly negatively associated with depression and loneliness at younger ages (Anderson, 2019). Thus, older adults may have underreported social support as they perhaps relied more on implicit support than younger adults, viewed social support as potentially costly, and were concerned about social implications of seeking help.

As individuals become more involved in their social networks or communities, there may be hesitancy to disclose symptoms of mood disorders. Black individuals in particular report learning early in life that mental illness is a topic to be avoided, and to keep mental health issues within the family (Alvidrez et al., 2008). Thus, there may be hesitancy to disclose symptoms to loved ones. Social responses to illness must be considered when examining the role of social support on mental health: based on one's perception of the impact of stigma, one may view their social support differently (Kondrat et al., 2018). Individuals experiencing symptoms of depression or anxiety, in this case, may expect rejection, devaluation, or discrimination upon disclosing mental health concerns (Kondrat et al., 2018). Racial and ethnic differences in the role of social support, as noted previously, are evidenced through differences in social embeddedness of Black and White Americans. As stigma varies across cultures, racial and ethnic minoritized individuals may vary in disclosing mood problems to their communities based on their involvement in these groups. Our insignificant results may be further explained by the nature of conducting research studies within the context of primary care visits. Participants may have felt rushed, not have read through the study information thoroughly, or experienced response bias. The survey consisted of a large number of questions that may have been taxing for participants to undertake, and their responses may not be as accurate as if they were to take the survey outside of their care visits (Booker et al., 2021).

Limitations

There are several limitations to consider in this study. First, the small sample size ($n = 51$) limited the statistical power of analyses. Due to the study's timing, which fell during the first six months of enrollment into the SBSM/HealthySteps program, there were only 58 participants enrolled before analysis and seven needed to be removed due to missing data. This yielded a low-power sample after removing missing data from participants, limiting the ability of the analyses to find true effects (Button et al., 2013). Smaller sample sizes confer larger variability, as seen in our wide standard deviations. Secondly, the non-random nature of the sample limited the reliability of the study. Convenience sampling was used because mothers were screened as part of standard of care during their primary care visits, and thus the variability and bias cannot be measured or controlled (Acharya et al., 2013). The generalizability of the results is limited beyond the sample (Acharya et al., 2013). Thirdly, our assessments were made across electronic and paper surveys. Not all participants were offered the electronic mode of survey completion, as it became available after many participants had already completed pen-and-paper versions (Booker et al., 2021). Web-based surveys allow participants to complete studies in a more comfortable environment, without time constraints, and are more convenient (Booker et al., 2021). Many questions asked were of high sensitivity (e.g., mental health symptoms), which is linked to lower response rates in patient surveys, which might have been improved if the participant could have taken the survey electronically in a private space (Booker et al., 2021). Lastly, despite the advantages of the two-way ANOVA, it is important to acknowledge that this method may not be capable of including more confounders in the analysis. Our study emphasized group differences rather than predictive potential, thus factoring additional confounders into the model was beyond the scope of our current investigation. Additionally, our low Cronbach's Alpha ($\alpha = 0.378$) may be attributed to our survey's small question set (total of five questions for mental health scores).

Future Directions

Despite limitations, this study highlights important areas for next steps in perinatal mental health research for Black and Latina women. Future studies must examine how racism and discrimination, on the interpersonal and systemic level, impact birth outcomes and complications in women of color, particularly Black and Latina women. Understanding the pathways by which discrimination impacts infant health, in addition to maternal outcomes, will be instrumental in reducing maternal and infant mortality. In terms of statistical analysis approaches, future research topics may consider the application of regression analysis to delve deeper into the relationships between social support, mental scores, and other confounders, particularly for predictive modeling. Such an approach

could provide a more comprehensive understanding of the factors influencing mental well-being within our target demographic. Future research should consider a more comprehensive approach to understanding mood outcomes by taking into account additional variables within a broader scope. Additionally, future studies might incorporate covariates in predictive modeling for a more comprehensive understanding of these relationships. Although we did not find a significant relationship between social support and perinatal anxiety and depression outcomes, this is still an important relationship to explore in perinatal research.

Conclusion

This study found a significant relationship between social support and both race and age, which may suggest that there are other points of intervention for similar communities. Given how contextual factors such as race, socioeconomic status, and the like intersect within health care systems, placing Black and Latina moms at a disadvantage in receiving equitable perinatal support, future studies should examine how everyday racism impacts social support and mental health outcomes. In places such as Washington, D.C., where access to adequate perinatal care is disparate, initiatives such as SBSM may improve mental health care accessibility. More research is needed on how to best examine patients' social support and mental health symptoms during primary care visits, the mechanisms by which racism and discrimination impact health outcomes, and the influence of resilience on perinatal outcomes for Black and Latina women.

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Table 1

Sociodemographic Characteristics of Participants

Baseline Characteristic	High Social Support		Low Social Support		*p*-value
	n	%	n	%	
Race					0.0498
Black	15	48	4	20	
Latina	13	42	9	45	
Other	3	10	6	30	
Education Level					0.5768
Less than high school	7	23	8	40	
High school diploma	13	42	8	40	
Some college	8	26	3	15	
College degree	3	10	1	5	
Employed	16	52	6	30	0.2180
Completed a physical exam	24	77	16	80	1.0000
Relationship status					0.6560
Married	12	39	5	25	
In a committed relationship	13	42	9	45	
In a casual relationship	2	6	1	5	
Single	4	13	5	25	
	M	SD	M	SD	
Age	28.47	4.45	35.5	5.02	0.0010

Table 2

Means, Standard Deviations, and Two-Way Analyses of Variance in Race and Social Support

	Mean Mental Health Score				Anxiety Score				Depression Score			
	M	SD	F	p	M	SD	F	p	M	SD	F	P
Race			0.73	0.49			1.36	0.27			0.31	0.73
Black	0.63	1.01			0.32	0.67			0.32	0.67		
Latina	0.41	0.96			0.23	0.69			0.18	0.39		
Other	0.33	1.00			0.00	0.00			0.33	1.00		
Social support			1.42	0.24			1.84	0.18			0.28	0.60
High	0.39	0.80			0.16	0.45			0.23	0.50		
Low	0.60	1.19			0.30	0.80			0.30	0.80		

Table 3

Relationship Between Social Support and Anxiety or Depression Scores

Logistic Parameter	High Social Support		Low Social Support		t(49)	*p*
	M	*SD*	*M*	*SD*		
Total mental health score	0.39	0.80	0.60	1.19	0.7045	0.4865
Total scores from PHQ-4	0.39	0.80	0.60	1.19	0.7045	0.4865
Self-harm score	0.00	0.00	0.00	0.00	N/A	N/A
Anxiety score	0.16	0.45	0.30	0.80	0.7045	0.4872
Depression score	0.23	0.50	0.30	0.80	0.3706	0.7137

Figure 1

Relationship Between Social Support and Mental Health Score