Black Maternal Depression and Barriers to Care

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Abstract Ethnic and racial disparities in perinatal depression care are well documented, but Black women's care information is significantly limited. This study aimed to identify barriers to Black postpartum depression care. Quantitative descriptive research was used to investigate and document the barriers to postpartum depression care faced by low-income Black women in Central Texas. The Edinburgh Postnatal Depression Scale (EPDS) and a self-made 5 point Likert Scale questionnaire were used to collect data from 12 participants. The result indicated that 41.7% of participants showed significant signs of postpartum depression. Just over 16.7% of postpartum depression participants strongly agreed that low-income prevents treatment. Additionally, the mean rank of 5.40 and a p-value of 0.35 further indicated that low income is the mean barrier to low-income Black maternal postpartum care in Central Texas. Prior literatures have detailed mental health care disparities across various racial and ethnic groups, but none have addressed the barriers of postpartum depression care. This study present evidence of barriers to postpartum depression care among low-income Black women residing in Central Texas. Because of the limited nature of current studies on Black maternal depression and care needs in Central Texas, this study provides clinicians, researchers, and educators with the evidence needed to guide future research on this demographic. A limitation in this study was that the EDPS score was used instead of a trained mental health professional to identify postpartum depression participants. Therefore, future researchers are recommended to recruit a larger number of participants with a known diagnosis of postpartum depression.

Keywords: postpartum depression, Black maternal, postpartum care, Central Texas, low-income mothers, and depression

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1. Introduction

Depression has gained a great deal of attention in the health care field, primarily due to the increasing number of cases and risks it poses to an individual's health, finances, and social status [1]. The prevalence of perinatal depression is estimated to be 7% to over 20% within the first year after delivery, with 40% to 80% of women having a long-term effect [2]. Kingston et al. indicated that symptoms of depression are often chronic and reoccurring, especially when a mother has a history of depression. Additionally, major depressive disorder (MDD) is the fourth leading cause of disability and accounts for about 12% of total years lived with disability [3]. The rate of MDD for low-income Latina, Black, and Caucasian mothers is identified as 8% during the postpartum period and 23% in the first three months after delivery.

Postpartum depression (PPD) is a mental health condition that affects about 10%–20% of women who give birth regardless of ethnicity, race, or income but does not have the same rates across all groups [4,5], Additionally, regardless of an individual's age or the number of births, the prevalence of maternal depression is 13.4% in mothers who already struggle with chronic depression [6].

Evidence has shown that maternal depression, including PPD, is linked to poor quality of parental care, which leads to negative child outcomes across all ethnic and socioeconomic groups [1] [3] [7,8,9]. Though literature has identified many risk factors associated with PPD, these risk factors have not always been elucidated [4]. Furthermore, it is difficult to determine the core risk factors of PPD because of its multifactorial etiology.

Though there are more Blacks living in the United States than Cubans, Chinese, Indians, and Japanese, little is known about depressive disorder risk among the Black population [3]. Ethnic and racial disparities in perinatal depression care are well documented, but information on care among Black women is significantly limited [5]. Though effective and efficient screening tools and treatment approaches have been developed to mitigate and reduce perinatal depression, identification and treatment rates are significantly low, especially among low-income Black women. Therefore, this paper aims to investigate and document the barriers to PPD care in low-income Black women in Central Texas.

An underlying theoretical framework would be significant to assist researchers and healthcare providers in identifying and providing treatment for PPD patients. Therefore, the vulnerability-stress conceptualization of PPD module is adapted to evaluate the relationship of an

individual's biological, social/environmental, and psychobehavioral factors that involved depression and the impact of the intervention on these factors [15]. In short, this conceptual framework investigates the relationship between chronic/acute burdens, biological and psychosocial environment, and physiological and psychobehavioral factors to prevent recurrent psychiatric morbidity and mortality.

2. Research Question

What are the barriers to perinatal depression care faced by low-income Black women in Central Texas?

3. Description

The primary cause of maternal depression had been identified to include a history of depression, being a single parent, poor social support network, full-time employment or lack of employment, first-time mothers, low family income, low education level, black skin color, limited social support, stressful life event, and anxiety [10,9]. A major depressive episode is associated with symptoms such as sad mood, loss of pleasure, low mood, crying spells, feeling overwhelmed, irritability, and functional and cognitive impairment that persist after 2 weeks of encounter [1] [6] [9] [15]. Therefore, persistent maternal depression can further cause an unhealthy behavior problem, leading to adverse mental and infant outcomes. Additionally, the skin color of Black mothers further increases the chance of PPD development [11]. According to Accortt et al. [11], PPD has been linked to higher level of proinflammatory and vitamin D deficiency.

Vitamin D is a nutrient that acts as an influential immune moderator and help protect the body from diseases such as osteoporosis, cancer, and infection [11]. Vitamin D also helps regulates placental development and function during pregnancy. It was reported that African American or Black women have a higher rate of PPD compared to other racial/ethnic groups living in the United States. Furthermore, they are also at increased risk for vitamin D deficiency because darker skin significantly reduces sunlight exposure and lower intakes of vitamin D supplement. Additionally, low level of vitamin D have always been associated with pregnancy, especially in Black women, regardless of socioeconomic status.

The impact of depression, including PPD, in the United States presents significant financial burden, morbidity, and mortality risk. In the year 2000, the financial burden in the United States alone for depression was estimated at $83 billion [3]. Evidence has suggested that the rate of perinatal depressive symptoms differs among racial and ethnic groups because of the differences in motherhood, mental health perception, and cultural expectation. Kozhimannil et al. [5] argued that differences in the perceived need for care, risk factors, access to health insurance, socioeconomic status, and patient/provider communication factors are the reasons for the complex relationship between race-ethnicity, depression symptoms, and care. Regular contact with health care providers is necessary during the childbearing process because the perinatal periods present a unique and significant vulnerability to mental illness, emotions, and expectations about motherhood.

Williams et al. [3] indicated that the small sample size of prior studies on Black mental health had been the major limitation to addressing the risk of MDD among the Black population. Other studies have also suggested that communication problems, time constraints, transportation, insurance coverage, child care, and stigma are specific barriers to low-income minority care. Though addressing these issues may help meet mental health care needs, further research is needed to identify the barriers to PPD care among low-income Black mothers [5].

4. Study Design and Method

Design

A total of 12 participants were recruited for the study. The A. T. Still University Institutional Review Board reviewed and approved this research, including the research question. The study used a quantitative descriptive research design. PPD symptoms were identified by using the Edinburgh Postnatal Depression Scale (EPDS) with a score of 10 and above. Additionally, income status, care accessibility, cultural background, and education status were identified by using the 5-point Likert Scale questionnaire.

Postpartum Depression

The Edinburgh Postnatal Depression Scale (EPDS) is a 10-question survey questionnaire screening instrument that is used to identify risk for perinatal depression [12]. A score of 13 and above indicates a sign of depression with varying severity. However, a score of 10 to 13 indicates a likelihood of depression but not severe or at critical level. A score of 10 and above was the baseline at which depression was considered in this study. Data were collected between 4 weeks to 1 year of postpartum to include women experiencing onset and persistence symptoms of PPD.

Sample Characteristics

Sociodemographic factors such as education level and maternal age also influenced depressive symptoms onset in Black women. Though low or lack of education was identified as one of the leading factors for Black maternal depression, traditional education school system was not used to identify maternal depression understanding in this applied research project. Instead, only participants' knowledge and understanding of maternal depression were used. Participants' age, geographic location, and race/ethnicity were not actually evaluated since they were all Black women living in Central Texas, regardless of their age.

Inclusion and Exclusion Criteria

Inclusion criteria in the study included being a Black mother, having a mental health disorder (currently or previously), older than 18 years, located in Central Texas, United States, history of depression, depression symptoms, or history of anxiety, and low-income. Exclusion criteria included being a white mother, participants younger than 18 years old, history of schizophrenia, and mid-and high-income.

Data Analysis

Women with a score of 10 and above on the EPDS were considered to have symptoms of depression. The Statistical Package for Social Science (SPSS) software was used to analyze data in this study. Demographic characteristics such as income status, care accessibility, cultural background, and education status were analyzed to determine their relationship to postpartum depression. The Mann-Whitney U test and descriptive statistics were used to analyzed the relationship between postpartum depression and the demographic variables.

5. Results

Below are the frequency tables for income, cultural background, care accessibility, education, and postpartum depression status. It described the number of times a particular response is observed in the study. The below statistics in Table 1, show that 12 subjects participated in the study. Additionally, no missing data were observed across the five variables studied.

Table 1. Frequency Table

Factors		F1	F2	F3	F4	F5
N	Valid	12	12	12	12	12
	Missing	0	0	0	0	0

Note. N represents the number of participants. F1 represent: my low income prevents me from getting the treatment I need. F2 represent: my cultural background prevents me from getting treatment. F3 represent: The lack of care availability in my area prevents me from receiving treatment. F4 represent: The lack of knowledge on symptoms of depressive disorder prevents me from getting treatment. F5 represent: depression disorder.

Table 2 shows the sum of five participants, with 41.7% frequency, who agreed strongly or somewhat that they had experienced some signs of depression. Additionally, the median of 3.00 with a minimum and maximum value of 1 and 5 shows that depression was observed across all variables being studied.

Table 2. I have experienced symptoms of depression

	N	%
Strongly agree	2	16.7%
Somewhat agree	3	25.0%
Neutral	2	16.7%
Somewhat disagree	1	8.3%
Strongly disagree	4	33.3%

Note. N represents the number of participants, and % represents the response frequencies in percentage.

The frequency table (Table 3) below shows that of the 12 subjects who participated in the study, 58.3% of participants did not show signs of depression. However, 41.7% of participants showed significant postnatal or postpartum depression symptoms.

Table 3. Postpartum Depression

	N	%
No Depression	7	58.3%
Depression	5	41.7%

Note. N represents the number of participants, and % represents the response frequencies in percentage.

Though only 16.7% of participants were neutral, a greater proportion (41.7%, 66.7%, 66.7%, and 58.3%) of participants strongly disagreed that low income (Table 4), education (Table 5), cultural background (Table 6), and care accessibility (Table 7) are the barriers to postpartum depression care among the low-income Black women living in Central Texas. However, it was also noted that Table 4 shows that 16.7% of participants strongly agreed that low-income prevents them from getting the treatment desperately needed to combat postpartum depression and allow a better quality of life like their non-depression counterparts.

Table 4. My low income prevents me from getting the treatment I need

	N	%
Strongly agree	2	16.7%
Somewhat agree	1	8.3%
Neutral	2	16.7%
Somewhat disagree	2	16.7%
Strongly disagree	5	41.7%

Note. N represents the number of participants, and % represents the response frequencies in percentage.

Table 5. The lack of knowledge on symptoms of depressive disorder prevents me from getting treatment

	N	%
Strongly agree	1	8.3%
Somewhat agree	1	8.3%
Neutral	1	8.3%
Somewhat disagree	1	8.3%
Strongly disagree	8	66.7%

Note. N represents the number of participants, and % represents the response frequencies in percentage.

Table 6. My cultural background prevents me from getting treatment

	N	%
Strongly agree	1	8.3%
Somewhat agree	1	8.3%
Neutral	1	8.3%
Somewhat disagree	1	8.3%
Strongly disagree	8	66.7%

Note. N represents the number of participants, and % represents the response frequencies in percentage.

Table 7. The lack of care accessibility in my area prevents me from receiving treatment

	N	%
Strongly agree	1	8.3%
Somewhat agree	1	8.3%
Neutral	2	16.7%
Somewhat disagree	1	8.3%
Strongly disagree	7	58.3%

Note. N represents the number of participants, and % represents the response frequencies in percentage.

Table 8 below shows the Mann-Whitney U test, a nonparametric test that compared the association of postnatal depression and the four variables (income, cultural background, care availability, and education status) to address the research question. It was no surprise that the mean ranked for the "No Depression" group was high across all variables because participants did not have any

signs of depression. However, among participants with depression, the mean rank of low-income (5.40) shows a much higher value compared to cultural background, care accessibility, and education. Though not as significant as low-income, it was important to note that care accessibility ranked the second highest with a mean rank value of 4.10. The respective Mann-Whitney U test *p*-value of 0.01, 0.03, and 0.01 indicates that cultural background, care accessibility, and education are not barriers to postnatal depression care. However, the Mann-Whitney U test *p*-value of 0.35 suggests that low-income status is the barrier to postnatal care among low-income Black women living in Central Texas. This is also seen in the descriptive statistics of all the variables.

Table 8. Mann-Whitney U test

Factors	F1	F2	F3	F4
Mann-Whitney U	12.000	3.500	5.500	3.500
Asymp. Sig. (2-tailed)	0.352	0.007	.029	0.007

Note: F1 represent: my low income prevents me from getting the treatment I need. F2 represent: my cultural background prevents me from getting treatment. F3 represent: The lack of care availability in my area prevents me from receiving treatment. F4 represent: The lack of knowledge on symptoms of depressive disorder prevents me from getting treatment.

6. Discussion

This study result showed that out of the 12 subjects who participated in the study, 58.3% did not show signs of depression, but 41.7% showed significant signs of PPD. In this study, PPD was evaluated using the EDPS score of 10 and above. However, it was interesting that 16.7% of participants strongly agreed that low-income prevents them from getting postpartum depression care. This was further confirmed by the low-income mean rank of 5.40 and the p-value of 0.35, that low-income was the mean barrier to low-income Black maternal postpartum care in Central Texas. Though several prior authors have detailed mental health care disparities across various racial and ethnic groups, this study is unique because it presents evidence of barriers to postpartum depression care among low-income Black women residing in Central Texas.

PPD remains grossly undiagnosed and undetected in many women, especially during the perinatal periods. Hence, prior research has indicated that treatments and follow-ups are still limited, even among women diagnosed with PPD [13]. The findings in this study indicate that low income is the barrier to PPD care. Though this finding cannot be generalized to a larger population, it can provide clinicians, researchers, politicians, educators, and other stakeholders with the evidence needed to change policies and implement initiatives to mitigate or reduce the challenges associated with PPD care, especially in low-income communities. Additionally, because of the limited number of current studies on Black maternal depression and care needs in Central Texas, this study would further guide future research on this demographic.

7. Study Limitation

By using the Edinburgh Postnatal Depression Scale and a self-made 5-point Likert Scale questionnaire, data were collected to complete the study. Though the EPDS does not diagnose PPD in participants, it provides vital information on participants' mental health status. A limitation of this study is that PPD was not diagnosed by a trained mental health professional. Instead, the EPDS score was used to identify signs of postpartum depression. Therefore, it is possible that women with other mental conditions were included in this study. Future research is recommended to recruit a larger number of participants with a known diagnosis of PPD.

8. Conclusion

The perinatal period presents unique challenges that lead to depression and financial burden, especially after birth. Although PPD screening has significantly increased in recent years, treatment to care remains a concern, particularly among low-income Black women [14]. In this quantitative study that included 41.7% of women with significant symptoms of PPD, the focus was on treatment barriers among low-income Black women in Central Texas. Prior studies indicated that treatment inconvenience, cultural stigma and beliefs, awareness gap, time constraints, transportation, child care, health insurance coverage, and communication problems were the barriers to PPD care globally [5,14] However, this study presented evidence that indicated that low income is the mean barrier to low-income Black maternal depression in Central Texas.

The presence of such evidence indicates the need for a plan of action by the government, individuals, researchers, and health care institutions to address the issue of low income in this demography. Implementing such initiation will help address the need for low-income Black maternal PPD care and close the treatment gap in mental health. Nevertheless, because the Edinburgh Postnatal Depression Scale was used instead of a trained mental health professional to identify PPD participants, additional study is needed to identify barriers in a larger population with a known diagnosis of PPD.

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