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SOCIAL SUPPORT AND LIVED EXPERIENCES OF POSTPARTUM DEPRESSION IN NIGERIA: IMPLICATIONS FOR CULTURALLY-SENSITIVE MATERNAL MENTAL HEALTH INTERVENTIONS

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ABSTRACT
This study examined the psychosocial factors influencing postpartum depression (PPD) among nursing mothers in Imo State, Nigeria, with a focus on social support, spouse employment, and spousal education. Using a mixed-methods approach, specifically, convergent parallel design, quantitative data were collected from 1,198 nursing mothers (ages 18–54 years, M=30.38 and within a postpartum window of ≤12 months) through the Edinburgh Postnatal Depression Scale (EPDS) and the Multidimensional Scale of Perceived Social Support (MSPSS). A score of ≥13 was employed as the cut-off to indicate a positive screen for PPD. Qualitative data were gathered through focus group discussions (FGDs) to explore the lived experiences of postpartum mothers. Results from Hierarchical regression analysis revealed that perceived social support was a significant negative predictor of PPD, with higher levels of support being associated with lower depression scores (β = -0.196, p < 0.001). Spouse employment status also significantly predicted PPD (β = -0.084, p = 0.003), indicating that employed spouses were associated with lower depression scores. Additionally, spouse educational level was found to be a significant predictor (β = -0.067, p = 0.020), with higher levels of spousal education linked to lower depression levels in mothers. The regression models explained up to 5% of the variance in postpartum depression. Qualitative findings emphasised the critical role of emotional, practical, and financial support in reducing depressive symptoms. Mothers who lacked adequate support, especially from spouses or family members, reported higher levels of distress. The study emphasises the importance of enhancing social support networks and addressing cultural stigma surrounding maternal mental health. Interventions should focus on improving spouse involvement and promoting culturally sensitive care to reduce PPD.

Keywords: *postpartum depression, social support, spousal factors, maternal mental health, Nigeria.*

INTRODUCTION
The postpartum period represents a critical juncture of biopsychosocial transition, demanding significant adaptation from new mothers. While often idealised, this phase can precipitate substantial mental health vulnerabilities, with postpartum depression (PPD) constituting a major public health challenge globally (Akpan et al., 2025; Khamidullina et al., 2025). Postpartum depression is a non-psychotic depressive episode that involves persistent symptoms, including sadness, anxiety, fatigue, and impaired functioning that significantly impact maternal well-being, infant development, and family dynamics (Bharti, 2024; Khamidullina et al., 2025). The condition's multifaceted aetiology encompasses hormonal fluctuations, genetic predispositions, psychological factors, and socio-environmental stressors such as lack of social support (Bharti, 2024; Panuciak et al., 2024). Untreated PPD impairs maternal caregiving behaviours, including bonding, sensitivity, and responsiveness, leading to disrupted mother-infant attachment (Ahasana et al., 2024). These bonding impairments have serious consequences for children's long-term development, including lower IQ scores and increased risk of ADHD outcomes (Su, 2025).

Globally, the prevalence of PPD is estimated at 17.22%, though significant regional disparities exist (Wang et al., 2021). In low- and middle-income countries (LMICs), the challenges of postpartum depression (PPD) are worsened by issues like poor healthcare systems, poverty, and widespread stigma, leading to high rates of underdiagnosis and undertreatment (Gelaye et al., 2016; Stewart & Vigod, 2019). Moreover, PPD faces additional obstacles in these countries, such as cultural stigma around mental health, lack of training for healthcare providers, and limited resources, all of which make it harder to diagnose and treat effectively (Hazazi, 2025; Khamidullina et al., 2025).

The Nigerian context exemplifies this trend, where regional studies report PPD prevalence rates ranging widely from 14.6% to as high as 72.1% (Chinawa et al., 2016; Johnson et al., 2024; Obioha et al., 2021). A recent investigation in Imo State, for instance, revealed an alarming prevalence of 53.9% among nursing mothers, starkly contradicting the initial hypothesis of a 30% threshold and underscoring a severe, localised maternal mental health crisis (Sydney-Agbor et al., 2025).

The biopsychosocial model (Engel, 1977) offers a valuable theoretical framework for understanding PPD, positing that health outcomes result from the dynamic interplay of biological, psychological, and social factors. Within this framework, social support has been consistently identified as a critical buffer against postpartum psychological distress. The idea behind the model was to express mental distress as a triggered response to a disease that a person is genetically vulnerable to when stressful life events occur (Wong, 2014). The biopsychosocial model has gained significant interest among researchers in healthcare and active medical professionals over the past decade (Nakao et al., 2020). In the context of postpartum depression, it helps to analyse how physiological changes after childbirth, individual psychological traits (e.g., resilience, previous mental health history), and social support networks collectively influence the mental health of nursing mothers. Empirical evidence suggests that support from partners, family, and friends can mitigate the risk of PPD by providing emotional support, practical assistance, and a sense of belonging (Leahy-Warren et al., 2011).

Conversely, inadequate social support, intimate partner violence, and an unsupportive partner have been robustly linked to elevated PPD symptoms (Adeyemo et al., 2020; Nakamura et al., 2020). Furthermore, demographic and socioeconomic factors, including marital status, educational attainment, and employment, are frequently implicated. For example, findings from Imo State indicate that being unmarried, having a lower education, and unemployment are significant demographic predictors of PPD (Sydney-Agbor et al., 2025). The role of a spouse's socioeconomic status, particularly their employment and education, warrants deeper investigation as it may indirectly influence maternal well-being through household resource allocation and psychosocial stress pathways.

Despite this growing body of evidence, a predominant reliance on quantitative methodologies has often left the nuanced, lived experiences of postpartum mothers inadequately explored. A purely statistical understanding can obscure the personal meanings, cultural interpretations, and contextual challenges that shape a mother's journey through the postpartum period. Integrating qualitative insights is thus imperative to contextualise quantitative findings and illuminate the subjective realities of PPD, which are often filtered through cultural beliefs and stigma (Ayobola & Nwokocha, 2022).

Statement of the Problem

Postpartum depression represents a pressing yet persistently neglected dimension of maternal health in Nigeria. A confluence of factors, including widespread lack of awareness, cultural stigma, and systemic barriers within the healthcare system, contributes to a troubling scenario where PPD remains largely underdiagnosed (Abazie & Usoro, 2021; Ayobola & Nwokocha, 2022). Compounding this issue is the stark heterogeneity in PPD prevalence across Nigeria's diverse regions, which signals the presence of unique, location-specific risk architectures. While recent research in Imo State has quantified a disturbingly high PPD prevalence of 53.9% (Sydney-Agbor et al., 2025), the underlying psychosocial mechanisms, particularly the protective role of social support and the influential role of spousal characteristics, remain insufficiently delineated. Moreover, the quantitative data, while critical for establishing prevalence, fail to capture the rich, contextualised narratives of mothers navigating postpartum life within the specific socio-cultural context of Southeastern Nigeria. This gap limits the development of truly resonant and effective,

culturally-sensitive interventions. Therefore, there is an urgent need for a mixed-methods inquiry that not only quantifies key predictive relationships but also qualitatively explores the lived experiences of nursing mothers to inform a more holistic and effective public health response.

Purpose of the Study

This study aims to conduct a comprehensive examination of the psychosocial factors influencing postpartum depression among nursing mothers in Imo State, Nigeria. The specific objectives are:

1. To ascertain the impact of social support on postpartum depression.
2. To establish if spouse employment status predicts the risk of postpartum depression.
3. To determine if spousal educational level predicts the risk of postpartum depression.
4. To ascertain the lived experiences of postpartum mothers.

Empirical Review

Social Support and Postpartum Depression

Predominantly, research suggests that social support, in its various forms, plays a critical role in alleviating the effects of postpartum depression, yet the effectiveness and nature of this support vary across cultural contexts. Studies have consistently found that social support serves as a protective factor against PPD. Social support can be categorised into four types: emotional, instrumental, informational, and appraisal support (Tessema, Abera, & Birhanu, 2025). Among these, emotional support, which includes feeling loved, cared for, and understood, has been most strongly linked to reduced depressive symptoms during the postpartum period. For example, Khademi and Kaveh (2024) observed that women with stronger emotional and social support networks had better psychosocial outcomes, including lower levels of depression, during the postpartum period. This protective effect is especially significant during the transition to motherhood, a time marked by physical, emotional, and social adjustments (Khademi & Kaveh, 2024).

In several African contexts, social support has been highlighted as a buffer against the onset of PPD. A study conducted in Nigeria by Tolulope et al. (2025) revealed that higher levels of perceived social support significantly predicted lower levels of postpartum depression among postnatal clinic attendees. Women who received emotional and instrumental support from partners, family, and friends experienced fewer depressive symptoms (Tolulope et al., 2025). Similarly, Tsiga-Ahmed et al. (2024) in Northern Nigeria found that postpartum women who lacked adequate social support were at a heightened risk of developing PPD, particularly when compounded by physical complications such as postpartum haemorrhage (Tsiga-Ahmed et al., 2024). These findings are consistent with other studies that have established the importance of both family support and community-based resources in mitigating the impacts of postpartum depression.

The role of partners, especially spouses, in providing support has also been emphasized in the literature. Gebrekristos et al. (2025) found that adolescent mothers in Kenya who received strong support from their parents and partners had a lower risk of developing depressive symptoms compared to those who lacked such support. In particular, the support of a partner in parenting and household duties was associated with reduced stress and improved mental health outcomes for new mothers (Gebrekristos et al., 2025). This finding aligns with research by Cho et al. (2022), who demonstrated that South Korean mothers with moderate to high social support were less likely to experience postpartum depression, especially if their support network included a caring spouse (Cho et al., 2022).

Moreover, the emotional and informational support provided by peers and social networks can also play a significant role in buffering the effects of postpartum depression. In their study of postnatal mothers in Uganda, Akongo et al. (2024) highlighted the challenges women face when they lack support from family or community, with stigma and financial barriers preventing access to formal mental health services. These barriers are particularly pronounced in resource-poor settings, where mothers may also face cultural stigma associated with mental illness (Akongo et al., 2024).

Interestingly, some studies have shown that the provision of formal social support interventions can significantly enhance maternal mental health outcomes. Tessema et al. (2025) in Ethiopia conducted a randomised controlled trial that demonstrated the effectiveness of antenatal group-based psychoeducation in improving postpartum social support and reducing depression. This approach involved providing mothers with information about mental health and encouraging the formation of support networks, leading to better mental well-being in the postpartum period (Tessema et al., 2025).

While the positive effects of social support on PPD are well-documented, it is important to note that not all forms of support are equally beneficial. Negative social interactions or support that is perceived as intrusive or critical can exacerbate stress and depression (Kaya et al., 2024). This underscores the importance not only of the presence of support but also its quality and the manner in which it is provided. Effective social support must be sensitive to the needs and preferences of mothers, and culturally appropriate to the context in which it is delivered.

Lived Experiences of Postpartum Mothers

The lived experiences of postpartum mothers, especially those dealing with postpartum depression (PPD), are diverse and shaped by a myriad of factors, including emotional distress, social support, cultural norms, and healthcare access. Understanding these experiences is crucial for designing culturally sensitive maternal mental health interventions.

The transition to motherhood, while joyous, is often accompanied by profound psychological challenges. For many mothers, postpartum depression manifests as an overwhelming sense of sadness, helplessness, and guilt. In Nigeria, mothers who delivered by Caesarean section (CS) experienced heightened emotional distress, with many describing feelings of inadequacy and the trauma of not having had a "natural" birth. Michael and Michael (2025) highlight that societal stigma around CS, linked to perceptions of weakness, further exacerbates feelings of guilt and emotional turmoil among new mothers, especially those struggling with PPD.

Similarly, in the Ho Municipality of Ghana, Dartey et al. (2024) found that the emotional experiences of women with PPD were deeply intertwined with feelings of self-blame, insomnia, and anxiety. Women also reported emotional disconnection from their newborns, which impacted both maternal well-being and the early stages of mother-infant bonding. The narratives from these mothers reflect a common theme of identity disruption—mothers often described a loss of self as they navigated the conflicting emotions of motherhood, grief, and emotional numbness.

In a related vein, studies from India and Pakistan also emphasise the profound emotional distress experienced by postpartum mothers. Sridhar et al. (2024) found that mothers with postpartum anxiety and depression often felt uncertain and overwhelmed by caregiving responsibilities, which further intensified their emotional distress. This emotional overload can leave mothers feeling detached from their caregiving roles, which in turn compounds feelings of incompetence and isolation. Furthermore, maternal anxiety related to infant health and the fear of making mistakes are recurring themes across various cultural contexts.

Social support emerges as a pivotal factor in moderating the severity of postpartum depression. In settings such as Nigeria and Ghana, where family support systems are deeply ingrained, the availability of emotional and practical support from family members, especially spouses and maternal grandmothers, plays a critical role in the recovery process. Dartey et al. (2024) found that women who received active support from family members, particularly from maternal grandmothers, exhibited better coping strategies and recovery outcomes. Similarly, in Nigerian studies, spousal support was identified as essential in buffering the emotional toll of postpartum depression. However, the quality of this support often varies based on cultural attitudes towards mental health and gender roles.

In contrast, a lack of social support or misattunement with family members can exacerbate the distress associated with postpartum depression. Sridhar et al. (2024) explored how the mismatch between the support mothers received and their emotional needs, particularly within the context of extended family dynamics, led to additional stress and feelings of neglect. Similarly, in Pakistan, Saeed et al. (2024) observed that postpartum anxiety was exacerbated by financial constraints and the weight of sociocultural expectations regarding motherhood. In these settings, informal support networks, such as friends and extended family, become crucial in helping mothers cope with the challenges of depression and anxiety.

The UAE-based study by Hanach et al. (2024) also underscores the importance of social support, although the diverse cultural backgrounds of mothers in the UAE complicated their access to appropriate care. Many women in this study felt that their mental health needs were not adequately addressed by healthcare providers, highlighting the importance of culturally sensitive care. This theme is further echoed by the experience of immigrant women, who often face barriers in accessing maternal mental health services due to language differences and cultural stigma around mental health issues.

Cultural perceptions of mental health and motherhood play a significant role in shaping postpartum experiences. In many low- and middle-income countries, including Nigeria and Ghana, societal norms often place pressure on mothers to appear strong and capable, with little room for vulnerability. The stigma surrounding postpartum depression is particularly pronounced in such contexts, where seeking mental health care is often seen as a weakness. Michael and Michael (2025) found that the stigma surrounding Caesarean deliveries in Nigeria compounded the challenges faced by mothers, making it difficult for them to openly discuss their emotional distress.

In contrast, the UAE study by Hanach et al. (2024) revealed that cultural and religious beliefs could serve as a source of resilience for some women, with spirituality offering an alternative framework for coping with mental health challenges. Despite this, the study highlighted that there was still a significant gap in the recognition of maternal mental health needs, with many women not seeking help due to the fear of being judged or misunderstood.

Furthermore, the experience of postpartum depression and anxiety is not just an emotional challenge but a social one, particularly for women in societies where maternal roles are idealized. Women in the UAE and Nigeria, for example, often felt immense pressure to fulfil the idealised image of motherhood, which led to greater feelings of guilt and inadequacy when they were unable to meet these expectations. This societal pressure also limited women's ability to express their mental health struggles, further compounding the challenges of postpartum depression.

Coping with postpartum depression often involves a combination of formal treatment and informal support. Many mothers reported using self-care strategies, such as engaging in physical activity, socialising with supportive peers, or seeking spiritual solace. However, these informal coping

mechanisms were often insufficient without formal mental health interventions, such as counselling or medical support.

The recovery process is multifaceted, with some women describing a slow, uneven return to emotional equilibrium. In the study conducted by Dartey et al. (2024), participants emphasised the importance of maternal education and awareness about the signs of postpartum depression as a key factor in preventing long-term psychological consequences. Similarly, Hanach et al. (2024) emphasised the need for more comprehensive healthcare services that integrate mental health support into routine maternal care. These findings underscore the critical need for proactive mental health screening during and after pregnancy to identify and address maternal mental health issues before they escalate.

Spouse Employment Status and Postpartum Depression

A range of socio-demographic factors, including spouse employment status, has been explored as a potential risk factor for PPD. The influence of spouse employment status on PPD has been studied across diverse geographical and cultural settings, yielding mixed findings.

A study conducted by Abenova et al. (2022) found that spouse employment status significantly influenced the likelihood of experiencing PPD among mothers in Kazakhstan, with women whose husbands were employed reporting lower levels of depressive symptoms compared to those whose husbands were unemployed. This finding suggests that the financial and emotional support provided by an employed spouse may play a protective role against PPD. A similar pattern was observed in the United Arab Emirates, where Hanach et al. (2022) reported that employed husbands' support was associated with a reduced risk of PPD among mothers. The emotional and practical support from an employed spouse might buffer the stressors that contribute to the onset of depression, particularly during the early postpartum period.

In contrast, studies have also highlighted that the absence of a supportive partner can exacerbate the risk of PPD. For instance, in a study of postpartum mothers in Saudi Arabia, Alshowkan and Shdaifat (2024) identified that family support, which is often more robust in dual-income households, was a significant protective factor against elevated PPD scores. They argued that inadequate spousal support, which is often a consequence of unemployment, could increase psychological stress, leading to higher rates of PPD. Furthermore, mothers who did not live with their husbands, whether due to separation or other factors, were found to be at an increased risk of developing PPD.

Conversely, while the supportive role of employed spouses is evident, the negative psychological impact of poor working conditions for the spouse also warrants consideration. Rihm et al. (2025) explored how precarious employment and job-related stressors in fathers could contribute to postpartum mental health issues in mothers, suggesting that not only the employment status but also the quality of the spouse's employment is a crucial determinant of maternal mental health. In such cases, the stress associated with a spouse's employment status, particularly if it is characterised by insecurity or exploitation, can amplify the psychological burden on the mother, potentially increasing the risk of PPD.

The findings from these studies underline the importance of spousal employment status as a multifaceted factor that influences maternal mental health. It is not simply the presence or absence of a partner's income but also the nature of the emotional and logistical support provided by the employed spouse that can mitigate or exacerbate postpartum depressive symptoms.

Spouse Educational Level and Postpartum Depression

The relationship between the educational level of spouses and the incidence of postpartum depression (PPD) is complex and significant across several studies. While there is no universal consensus, existing evidence strongly indicates that a spouse's educational level plays a crucial role in predicting maternal mental health outcomes, particularly in the context of postpartum depression.

In several studies, the education level of the spouse has been linked to the risk of postpartum depression in the mother. For example, research by Alkhawaja et al. (2023) found a significant association between the educational level of the husband and their awareness of postpartum depression, with husbands of higher educational backgrounds demonstrating better knowledge about the condition. However, despite this positive correlation, many husbands, especially those with lower educational levels, lacked the knowledge necessary to recognize the symptoms of postpartum depression. This lack of recognition may delay help-seeking behaviour, exacerbating the mother's mental health challenges.

Further studies reinforce the idea that lower educational levels among spouses are a risk factor for higher levels of postpartum depression in mothers. For instance, in a study by Alkhawaja et al. (2023), husbands with lower educational levels were less likely to seek professional help for their wives suffering from postpartum depression. This is corroborated by findings from Minia, Egypt, where researchers noted a relatively high prevalence of postpartum depression among mothers whose husbands had lower education levels. Such findings suggest that lower spousal education may contribute to both reduced emotional support and poorer recognition of maternal psychological distress, both of which are critical in the development of postpartum depression.

Additionally, the role of education is further explored in studies involving expectant fathers. Jayamanna and Abeysena (2025) found that expectant fathers' knowledge about postpartum depression significantly correlated with their level of education. Fathers with higher education were more likely to have positive attitudes and better knowledge regarding postpartum depression, which is crucial for early detection and intervention. This positive correlation implies that better-educated fathers are more equipped to recognize and respond to the emotional needs of their partners during the postpartum period, potentially lowering the risk of PPD.

In contrast, the findings from Saudi Arabia highlighted by Alkhawaja et al. (2023) illustrated a gap in knowledge and a significant association between a husband's educational level and their ability to recognize PPD symptoms. Such findings underline the importance of targeted educational programs aimed at enhancing spouses' understanding of PPD, especially for those with lower levels of education.

In a similar vein, research in the United Arab Emirates by Hanach et al. (2023) revealed that maternal education level, alongside that of the husband, was significantly associated with the likelihood of postpartum depression. Women whose partners had lower educational attainment were more likely to experience higher levels of postpartum depression. The study suggested that the interplay of educational levels, both of the mother and the father, contributed to the recognition or lack thereof of depressive symptoms, thus influencing the overall mental health outcomes for both parents and the infant.

Conclusively, spousal educational level is a critical determinant in the management and prevention of postpartum depression. More educated partners, especially husbands, are more likely to understand the importance of maternal mental health and seek help, which in turn can mitigate the effects of postpartum depression.

Hypotheses

Based on the above reviews, the following hypotheses were postulated.

1. Nursing mothers with higher levels of perceived social support will report significantly lower postpartum depression scores than those with lower perceived social support.
2. Nursing mothers whose spouses are unemployed will have significantly higher postpartum depression scores than those whose spouses are employed.
3. Nursing mothers whose spouses are less educated will have significantly higher postpartum depression scores than those whose spouses are more educated.
4. Nursing mothers who report adverse lived experiences will have significantly higher postpartum depression than mothers without such experiences

METHOD

Population of Study/Participants

The study involved 1,198 nursing mothers attending postnatal care in Imo State, Nigeria, which has a population of over 4.8 million and a density ranging from 230 to 1,400 people per square kilometre. The state has three geo-political zones: Owerri (9 LGAs), Orlu (12 LGAs), and Okigwe (6 LGAs), totalling 27 LGAs. From each zone, three LGAs are randomly selected, totalling nine. Two health centres per LGA with a high nursing mother attendance were chosen for the study, yielding 18 centres. Participants were selected using purposive sampling. Their ages ranged from 18 to 54 years, with a mean age of 30.38 years.

Instruments

Quantitative data were collected using a structured questionnaire designed to capture key variables relevant to the postnatal period. The instrument gathered information on demographic and socio-economic characteristics, including age, marital status, educational attainment, employment status, and place of residence. It also included items related to pregnancy and delivery experiences, such as the nature of the pregnancy and the mode of delivery.

Postpartum depression symptoms were assessed using the Edinburgh Postnatal Depression Scale (EPDS) (Cox et al., 1987). This 10-item self-report questionnaire asks respondents to indicate how they have felt over the preceding seven days, with each item scored from 0 to 3 for a total score between 0 and 30. A score of ≥13 was employed as the cut-off to indicate a positive screen for PPD, consistent with established practice (Cox et al., 1987; O'Connor et al., 2016). A pilot study (n = 150) confirmed the scale's reliability in our specific context, demonstrating good internal consistency (Cronbach's $\alpha = 0.76$). Item-total correlations ranged from 0.32 to 0.60, and the removal of any single item did not meaningfully improve the overall reliability.

Perceived social support was measured via the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988). This 12-item instrument, rated on a 7-point Likert scale, assesses support from significant others, family, and friends. A total mean score is calculated, with higher scores indicating greater perceived social support. The reliability of the MSPSS was also established in our pilot study (n = 150), which demonstrated excellent internal consistency (Cronbach's $\alpha = 0.89$). Cronbach's alpha reliability of .74, .68 and .75 were obtained for the Significant others, Family and Friends subscales, respectively.

To access qualitative data on the lived experiences of postpartum women, a Focus Group Discussion (FGD) guide was developed to explore themes in greater depth and to contextualise the findings from the quantitative surveys. The FGD guide was organised around several key domains: general postpartum experiences and emotional adjustments; specific emotional challenges and their manifestations; the role and adequacy of social support from partners, family, and friends; and the influence of cultural beliefs and stigma on help-seeking behaviour. Further

questions explored how demographic and obstetric factors shaped participants' experiences, their personal coping strategies, and their recommendations for improved support systems and policy. This qualitative component was designed to complement the quantitative data by providing deeper insights into the personal and socio-cultural contexts of postpartum adjustment, thereby offering a more comprehensive understanding of the phenomenon.

Procedure

Ethical approval for this research was granted by the Ministry of Health, Imo State. It was presented to the Chief Medical Director/Primary Health Care Coordinator of each of the 10 randomly selected hospitals and health centres. Participants were recruited during postnatal clinic visits and infant immunisation appointments, where they were informed about the study's purpose. Each questionnaire featured a brief introduction and a consent request. A total of 1,198 nursing mothers who consented participated in the quantitative aspect of the study. For the qualitative aspect of the study, three FGDs were conducted across three selected health centres in Imo State, each comprising ten postpartum mothers and lasting 30–50 minutes. Participants were purposively recruited, and trained researchers with support from a note-taker moderated the sessions. Discussions were audio-recorded with the participants' consent and conducted in English. No personal data was collected to ensure their privacy and confidentiality. The inclusion criteria were nursing mothers aged 18 or older, residents of Imo State, Nigeria, and within 12 months postpartum. Exclusions included individuals with severe medical conditions that could affect their participation or those who were unable to provide informed consent due to language barriers or other reasons.

Design and Statistics

This study employed a mixed-methods approach, combining quantitative and qualitative research methods to gather comprehensive data. A cross-sectional survey was employed to collect data from a sample of nursing mothers. This design allows for the simultaneous collection of data on variables of interest at a specific point in time. The collected data were analysed using the Statistical Package for the Social Sciences (SPSS), version 27. Descriptive statistics (e.g., frequencies, percentages, means, standard deviations) were used to summarise the demographic characteristics of the sample. Inferential statistical test (e.g., Pearson correlations and Hierarchical regression) was employed to examine the prevalence and association between psychosocial factors and postpartum depression. Qualitative data were analysed thematically using an inductive coding approach in NVivo 12. Two independent coders ensured intercoder reliability, while trustworthiness was maintained through triangulation, member checking, peer debriefing, and an audit trail.

RESULTS

Table 1: Demographic Characteristics of Participants

Variable	Category	Frequency (n)	Percentage (%)
Age Range (years)	18–22	79	6.6
	23–27	329	27.5
	28–32	409	34.1
	33–37	257	21.5
	38–42	102	8.5
	43–47	16	1.3
	48–52	6	0.5
Marital Status	Married	1170	97.7
	Single	17	1.4
	Widowed	1	0.1

Variable	Category	Frequency (n)	Percentage (%)
	Divorced	3	0.3
	Separated	7	0.6
Educational Level	Primary	21	1.8
	Secondary	406	33.9
	OND/NCE	186	15.5
	HND/Degree	533	44.5
	Postgraduate Diploma	8	0.7
	Master's	34	2.8
	PhD	10	0.8
Spouse's Employment Status	Employed	1151	96.1
	Unemployed	41	3.4
Spouse's Educational Level			37.8
	Basic Education (O'level & below)	453	
	Post-Basic Education (OND/NCE & above)	740	61.8
Place of Residence	Urban	626	52.3
	Rural	572	47.7
Obstetric Experience	Virginal Delivery	925	77.2
	Caesarean Section	273	22.8

Table 1 presents the demographic characteristics of the 1,198 nursing mothers who participated in the study. The largest age group was between 28 and 32 years (34.1%), followed by 23 to 27 years (27.5%). Nearly all participants were married (97.7%), while 1.4% were single, 0.6% separated, 0.3% divorced, and 0.1% widowed. Regarding education, 44.5% held a Higher National Diploma or university degree, 33.9% had completed secondary education, 15.5% held an OND or NCE, 2.8% held a master's degree, 1.8% had completed only primary education, 0.8% held a PhD, and 0.7% held a Postgraduate Diploma. Most spouses were employed (96.1%), and 62.0% had post-basic education, while 38.0% had only basic education. A slightly higher proportion of participants resided in urban areas (52.3%) than in rural areas (47.7%). In terms of obstetric experience, 77.2% of mothers reported having a normal delivery, while 22.8% delivered via Caesarean section.

Quantitative Data Analyses

Table 2: Correlation Matrix for Postpartum Depression Scores and Psychosocial Factors

Variable	1	2	3	4
1. Postpartum Depression Scores	1	-.20**	-.11**	-.10**
2. Perceived Social Support		1	.09	.15**
3. Employment Level of Spouse			1	.04
4. Educational Status of Spouse				1

*Note: **p < 0.01, *p < 0.05.*

The correlation analysis, as presented in Table 2 above, revealed several noteworthy associations between the psychosocial factors and postpartum depression. A significant negative correlation was found between perceived social support and postpartum depression scores (r = -

20, p < .01), indicating that higher perceived social support is associated with lower postpartum depression scores. This suggests that mothers who feel more supported by their social networks, including family, friends, and spouses, tend to experience fewer depressive symptoms during the postpartum period.

Similarly, the employment status of the spouse was negatively correlated with postpartum depression (r = -.11, p < .01), with mothers whose spouses were employed reporting lower levels of depression. This finding indicates that employed spouses may provide a degree of emotional and financial support that helps to mitigate the risk of postpartum depression. Furthermore, a negative correlation was observed between the educational level of the spouse and postpartum depression (r = -.10, p < .01), suggesting that mothers whose spouses have higher educational levels tend to experience lower levels of postpartum depression. These findings highlight the protective role of both social support and certain demographic factors in reducing the risk of postpartum depression.

Table 3: Hierarchical Regression Results for Postpartum Depression Scores

Model	Predictor	B	SE B	β	t	p	R	R^2	Adjusted R^2
1	Intercept	15.951	0.566		28.17	< .001	.20	.04	.04
	Perceived Social Support	-0.066	0.010	-0.196	-6.91	< .001			
2	Intercept	18.234	0.953		19.13	< .001	.21	.05	.04
	Perceived Social Support	-0.063	0.010	-0.189	-6.65	< .001			
	Employment Level of Spouse	-2.508	0.844	-0.084	-2.97	.003			
3	Intercept	18.454	0.956		19.30	< .001	.22	.05	.05
	Perceived Social Support	-0.060	0.010	-0.180	-6.26	< .001			
	Employment Level of Spouse	-2.449	0.843	-0.083	-2.91	.004			
	Educational Status of Spouse	-0.744	0.319	-0.067	-2.33	.020			

Note: Dependent Variable: Postpartum Depression Scores.

To further understand the predictive relationships between the psychosocial factors and postpartum depression, hierarchical regression analyses were conducted. In the first model, as presented in Table 3 above, perceived social support emerged as a significant predictor of postpartum depression, accounting for 4% of the variance in depression scores (R^2 = .04, p < .001). The negative coefficient (B = -.066) and standardised beta (β = -.196) indicated a significant inverse relationship between perceived social support and postpartum depression. This result confirms that higher levels of perceived social support are significantly associated with lower postpartum depression scores, providing robust support for the hypothesis that social support serves as a protective factor for postpartum depression.

The second model introduced spouse employment status as an additional predictor of postpartum depression. This model explained an additional 5% of the variance in depression scores (R^2 = .05, p < .001), with both perceived social support and spouse employment status contributing to the overall prediction. The coefficient for spouse employment status (B = -2.508) and the standardised beta (β = -.084) indicated that employed spouses were significantly associated with lower postpartum depression scores. This finding suggests that the emotional and financial support provided by employed spouses may reduce the risk of postpartum depression. Therefore, Hypothesis 2, which states that nursing mothers whose spouses are unemployed will have significantly higher postpartum depression scores than those whose spouses are employed, is accepted.

The third model included the spouse's educational level as an additional predictor. The results showed that the inclusion of spouse educational status accounted for an additional 5% of the variance in postpartum depression scores (R^2 = .05, p < .001). The negative relationship between

spouse education and postpartum depression scores (B = -.744, β = -.067, p = .020) indicates that mothers whose spouses have higher education levels tend to report lower postpartum depression scores. This suggests that spousal education may contribute to better mental health outcomes for mothers, possibly through enhanced understanding, better communication, and support. Thus, Hypothesis 3, which posits that nursing mothers whose spouses are less educated will have significantly higher postpartum depression scores than those whose spouses are more educated, is accepted.

Qualitative Data Analyses

The qualitative analysis of the focus group discussions (FGDs) conducted with postpartum mothers in Imo State provides valuable insights into the lived experiences of these mothers and their emotional wellbeing after childbirth. These insights strongly support hypothesis four, which posits that adverse lived experiences contribute to higher postpartum depression (PPD).

The emotional wellbeing of mothers was a recurring theme in the FGDs. Many participants described experiencing a range of emotional challenges, such as mood swings, sadness, anxiety, and fear. These feelings were often linked to the overwhelming demands of the postpartum period, including physical recovery and the emotional adjustment to motherhood. While some mothers noted that these emotions were temporary, others expressed that they lasted for several months. One participant explained:

> *"…Sometimes I feel happy, but at other times I am sad and moody. I was scared after childbirth."*

Such emotional fluctuations reflect the clinical symptoms of postpartum depression, which align with the hypothesis that emotional distress plays a significant role in postpartum mental health.

The role of social support emerged as another critical factor influencing emotional wellbeing. Mothers who received emotional, financial, and practical support from their partners and families tended to report better emotional outcomes. Conversely, those who felt unsupported, especially due to the absence of a supportive partner or family members, expressed heightened feelings of emotional distress. One mother shared:

> *"If not for my neighbour who came to help me that night, I wouldn't have had any rest. I feel alone with my kids when there is no one to help."*

This highlights the crucial role that support systems play in alleviating the stress associated with postpartum depression. The lack of support, as reported by some mothers, often led to feelings of isolation, exacerbating emotional distress.

In addition to social support, cultural beliefs and stigma were identified as significant factors affecting the mental health of postpartum mothers. Some participants discussed the cultural pressures they faced, with societal expectations that mothers should always be happy after childbirth. This pressure was compounded by the stigma surrounding mental health, which made some mothers hesitant to talk about their emotional struggles. One participant explained:

> *"Sometimes when you tell someone about your struggles, they say, 'You are not the only one who has given birth. Why are you complaining so much?'"*

Another added:

> *"There is a stigma around postpartum depression. People think that as a mother, you should be happy all the time."*

This fear of judgment prevented some mothers from seeking help or discussing their emotional challenges, which contributed to prolonged emotional distress and isolation.

The coping strategies employed by the mothers varied, with some relying on informal methods such as prayer, walking, or talking to family and friends. These strategies, while helpful to some, were often not enough to alleviate the deeper emotional challenges of the postpartum period. One mother shared:

> *"When I feel bad, I take my baby and walk around the street. It helps me clear my mind."*

Another stated:

> *"I pray to God when I am overwhelmed. I leave everything to Him."*

While these methods provided temporary relief, many mothers noted that they would have benefited from more structured support or professional help.

Overall, the qualitative data strongly support the hypothesis that adverse lived experiences, such as lack of social support, cultural stigma, and emotional isolation, contribute to higher postpartum depression scores. The findings suggest that social support is a key protective factor against postpartum depression, and that efforts to reduce stigma and enhance support networks could significantly improve maternal mental health outcomes.

DISCUSSION

This study examined the role of social support, lived experiences, spouse employment, and spouse education in predicting postpartum depression (PPD) among nursing mothers in Imo State, Nigeria. The findings emphasise the multifactorial nature of PPD and the importance of these psychosocial factors in shaping maternal mental health, particularly in low-resource and culturally diverse settings.

The study found a significant negative correlation between perceived social support and postpartum depression, suggesting that mothers with higher levels of social support report lower depressive symptoms. This aligns with prior research by Tolulope et al. (2025) and Leahy-Warren et al. (2011), which highlighted the protective role of emotional and practical support. However, the study adds a unique perspective by emphasising culturally appropriate support networks in regions like Nigeria, where traditional gender roles and family dynamics are influential. In contrast, negative social interactions or poor support can worsen depression, as noted by Kaya et al. (2024). This study underscores that not just the presence but the quality of support is critical for maternal mental health, especially in rural and conservative settings.

Adverse lived experiences also emerged as a key factor in postpartum depression. The qualitative findings revealed that emotional distress and isolation, exacerbated by cultural stigma, contributed to higher depression levels. These results support previous studies by Dartey et al. (2024) and Saeed et al. (2024), which identified emotional distress and a lack of support as significant contributors to PPD. The study also highlights the unique socio-cultural pressures in

Nigeria, where cultural expectations surrounding motherhood often exacerbate feelings of guilt and inadequacy.

Spouse employment status was associated with lower postpartum depression scores, aligning with Abenova et al. (2022) and Hanach et al. (2023), who found that employed spouses provide both financial and emotional support. This supports the hypothesis that employed spouses mitigate maternal stress. However, studies such as Rihm et al. (2025) indicate that the quality of employment can influence maternal mental health, a factor not explicitly explored in this study but worth investigating in future research.

Lastly, higher spousal education was linked to lower postpartum depression in mothers, echoing the findings of Alkhawaja et al. (2023) and Jayamanna and Abeysena (2025). Educated spouses are more likely to recognise depressive symptoms and encourage timely intervention. However, some studies, such as Saeed et al. (2024), suggest that spousal education does not always predict mental health outcomes, highlighting the need to consider broader family dynamics in various cultural contexts.

Implications of the Study

The findings of this study highlight the need for interventions that enhance social support for postpartum mothers. These interventions should involve family members and provide both emotional and practical support. Given the cultural stigma around mental health in many communities, efforts should also focus on reducing stigma and promoting open conversations about maternal mental health. Additionally, programs targeting both mothers and their spouses could be beneficial, helping spouses understand the importance of support and providing them with the tools to recognise symptoms of postpartum depression. Finally, culturally sensitive approaches are crucial in addressing unique regional challenges, such as societal expectations and mental health stigma, which may prevent mothers from seeking help.

Limitations of the Study

The study employed a cross-sectional design, limiting the ability to establish causal relationships between psychosocial factors and postpartum depression. Also, the sample was drawn from nursing mothers attending postnatal clinics in Imo State, which may not be representative of all mothers in Nigeria, particularly in rural or underserved areas. The reliance on self-report measures may introduce response biases, as participants might underreport depressive symptoms due to social desirability or stigma. Therefore, its findings may not be generalizable to other cultural or geographical settings, especially outside of Southeastern Nigeria.

Suggestions for Future Studies

1. Future research should adopt a longitudinal design to examine the long-term effects of social support, spousal factors, and adverse experiences on postpartum depression.
2. Replicating this study in other regions of Nigeria or other countries with similar cultural contexts would provide a broader understanding of the factors influencing postpartum depression across different settings.
3. Future studies should explore the effectiveness of targeted interventions, such as spouse-focused education programs or community-based mental health support, in reducing postpartum depression.

Conclusion

This study provides critical insights into the psychosocial factors influencing postpartum depression among nursing mothers in Imo State, Nigeria. The findings underscore the importance of social support, spouse involvement, and education in improving maternal mental health

outcomes. The study also highlights the need for culturally sensitive interventions that address the unique challenges faced by mothers in low-resource settings. Policymakers and healthcare providers should consider these factors when designing interventions to reduce postpartum depression and improve maternal well-being.

Recommendations

1. Healthcare providers in Imo State should collaborate with local communities to establish support systems that provide emotional and practical assistance to new mothers, particularly in areas with high stigma surrounding mental health.
2. Interventions should focus on educating and involving spouses in the postpartum care process, emphasising the importance of emotional and practical support in reducing the risk of PPD.
3. Public health campaigns should aim to reduce the stigma surrounding postpartum depression by raising awareness and encouraging open discussions about maternal mental health.
4. Policymakers should ensure that healthcare providers receive training on the cultural and psychosocial factors that influence postpartum depression, enabling them to offer more effective, personalised care.
5. Governments and organisations should consider implementing policies that support the mental health of new mothers, such as maternity leave and flexible work arrangements, particularly for employed mothers.

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Competing interests

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