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Gender Differences in Postnatal Depression in Southwestern Nigeria: A Quantitative Analysis

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Abstract

This study examined gender disparities in postnatal depression (PND) among parents in Southwestern Nigeria, along with the associated sociodemographic factors. A descriptive cross-sectional design was employed alongside stratified random sampling to recruit 200 respondents, comprising 113 mothers and 87 fathers attending postnatal and family planning clinics. The Edinburgh Postnatal Depression Scale (EPDS) was employed to collect data, and SPSS version 25 was used for analysis, encompassing both descriptive and inferential statistical techniques. The overall prevalence of probable postnatal depression (PND) was determined to be 29.6%. Women had significantly elevated mean EPDS scores ($M = 1.53$, $SD = 0.50$) in contrast to men ($M = 1.16$, $SD = 0.39$; $t(198) = -5.33$, $p < 0.001$). A statistically significant connection ($p < 0.05$) was identified between depressive symptoms and educational level, occupational status, and social support. The findings illuminate the persistence of gender disparities in postnatal emotional health and underscore the necessity of integrating gender-inclusive mental health screenings into postnatal care programs in Nigeria.

Keywords*: Depression, EPDS, Gender, Mental Health, Nigeria, Post Natal.*

Introduction

Background and Global Context

Postnatal depression (PND) is a highly widespread mood condition that impacts individuals following childbirth, resulting in considerable repercussions for family dynamics and child development [1]. The World Health Organisation (WHO) estimates that roughly 10–20% of women exhibit depression symptoms post-childbirth, however prevalence rates differ significantly based on socioeconomic and cultural factors [1, 2]. In addition to maternal distress, an increasing amount of research indicates that fathers may also suffer from depressive symptoms during the postnatal period, but these symptoms frequently go unrecognised and untreated [3, 4].

Perinatal mental illnesses are widely recognised as public health issues worldwide due to their significant impact on maternal health, marital relationships, and infant development [4]. Offspring of depressive parents encounter heightened risks of emotional and behavioural challenges. compromised attachment, and developmental delays [5].

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In low- and middle-income countries (LMICs), these results are exacerbated by poverty, gender inequality, and restricted access to mental health treatments [6].

Gender and Postnatal Depression

Gender is a significant predictor of mental health, affecting both susceptibility to risk factors and modes of emotional expression [7]. Women's susceptibility to postpartum depression (PND) is linked to hormonal fluctuations, caregiving stress, and inadequate marital support, but men's experiences are influenced by sociocultural expectations to maintain emotional stoicism and financial competence [8, 9]. Paulson and Bazemore's meta-analysis [10] revealed that paternal postpartum depression affects roughly 10% of fathers worldwide, with elevated incidence occurring when mothers are simultaneously depressed. Nonetheless, father's mental health is predominantly overlooked in both study and practice, especially in African countries where patriarchal traditions perpetuate silence regarding male emotional suffering [10].

The Nigeria Sociocultural Perspective

In Nigeria, childbearing is deeply rooted in robust societal and spiritual values that honour fertility and familial continuity [11]. Emotional distress during childbirth is frequently misconstrued as a sign of weakness, a spiritual assault, or a lack of thankfulness [11]. Women are anticipated to undertake comprehensive caregiving duties immediately upon childbirth whereas men encounter economic pressures to support their families. These conflicting expectations exacerbate stress and may lead to depression [11, 12]. Furthermore, mental health services in primary care settings are inadequately integrated, with postnatal visits mostly concentrating on physical recovery and newborn vaccinations [12]. Consequently, both mothers and fathers infrequently obtain mental health assessments or psychosocial assistance.

Research Objectives

This study aimed to:

1. Evaluate gender disparities in the prevalence and severity of postnatal depression among parents in Southwestern Nigeria.
2. Analyse the sociodemographic variables correlated with depressed symptoms.
3. Enhance the expanding body of scholarship on paternal postnatal depression within the African sociocultural framework.

Materials and Methods

Research Design and Settings

A descriptive cross-sectional design was utilised for this study. Data collection was carried out from April to June 2025 in Ibadan, Oyo State, Southwestern Nigeria. a significant urban hub, features am healthcare facilities catering to varied demographics. The study location included postnatal, family planning, and immunisation clinics within Adeoyo maternity teaching hospital chosen to reflect both low- and middle-income households who attend the facility.

Sampling Frame and Selection of Respondents

A stratified random sampling method was employed to guarantee proportional representation of both mothers and fathers.

The sampling frame consisted of clinic records of postnatal attendees, family planning and immunisation clinics. Parents of infants aged 0–6 months were categorised by gender, and respondents were chosen from each category by simple random sampling.

Inclusion criteria

Biological parents aged 18 years or older, residing in Ibadan, and visiting the designated clinics.

Exclusion criteria

Parents with pre-existing diagnosed psychiatric conditions or recent neonatal

bereavement. Research assistants evaluated attendance for eligibility and supply study information. Informed consent was acquired in writing form from all participants. The final sample had 200 respondents, evenly divided between 87 males and 113 females.

Data Collection Instruments and Procedures

The research instrument comprised two components. The initial recorded demographic attributes include age, education, marital status, employment, income, and social support. The second employed the Edinburgh Postnatal Depression Scale (EPDS), a standardised 10-item screening instrument validated across several groups [13]. Each item is evaluated on a 4-point scale (0–3), resulting in a cumulative score ranging from 0 to 30; scores of 13 or more suggest probable depression. The questionnaire was translated into Yoruba and subsequently back-translated to ensure semantic similarity. A pilot study with 20 parents at a comparable clinic produced a Cronbach's alpha of 0.84, indicating substantial dependability.

Trained research assistants, proficient in English and Yoruba, conducted interviewer-administered surveys in private rooms to ensure anonymity.

Male assistants conducted interviews with male participants to reduce awkwardness in addressing emotional matters. Supervisors conducted daily reviews of submitted surveys for thoroughness and precision.

Data Analysis

Data were input into IBM SPSS version 25 and subsequently cleaned before analysis. Descriptive statistics encapsulated demographic attributes. Inferential statistics, namely Chi-square tests and independent t-tests, analysed the relationships between sociodemographic variables and PND score. Effect sizes were interpreted via Cohen's d and Cramer's V. The threshold for statistical significance was established at $p < 0.05$. Missing data (less than 5%) were addressed via pairwise deletion.

Results

Overview of Respondents

The average age of responders was 31.8 ± 6.2 years. Most individuals (93.5%) were married, 46.5% possessed tertiary education and 57.5% were self-employed. Females represented 56.5% of the sample, while urban inhabitants accounted for two-thirds (66.5%). These demographics exemplify the diversity characteristic of urban postnatal clinics in Nigeria.

Prevalence and Gender Disparities

The total prevalence of probable postnatal depression (EPDS > 13) was 29.6 percent. Female respondents demonstrated a greater prevalence (34.5%) than their male counterparts (24.1%). The average EPDS score for females (1.53 ± 0.50) was greater than that for males (1.16 ± 0.39), $t(198) = –5.33$, $p < 0.001$.

This data suggests that although men experience mental distress post-childbirth, women are disproportionately impacted possibly due to a confluence of biological and social factors.

Association with Sociodemographic Variables

Notable correlations were identified between depressed symptoms and education ($\chi^2 = 8.23$, $p = 0.041$), employment position ($\chi^2 = 6.78$, $p = 0.034$), and social support ($\chi^2 = 9.65$, $p = 0.009$). Individuals with better education and robust familial support exhibited a reduction in depressed symptoms. Marital status and residence shown no significant correlations.

These findings underscore the mitigating influence of education and social support in alleviating postnatal mental discomfort.

Table 1. Sociodemographic Characteristics of Respondents (n=200)

Variables		**Gender**		**Total n (%)**	**p**
		Male n (%)	**Female n (%)**		
Age	18–25	13(14.9)	36(31.9)	49 (24.5)	0.002
	26–35	40(46.0)	59(52.2)	99 (49.5)	
	36–45	29(33.3)	13(11.5)	42 (21.0)	
	46–55	3(3.4)	3(2.7)	6 (3.0)	
	56+	2(2.3)	2(1.8)	4 (2.0)	
Marital Status	Single	4(4.6)	3(2.7)	7 (3.5)	0.488
	Married	82(94.3)	105(92.9)	187 (93.5)	
	Separated	1(1.1)	4(3.5)	5 (2.5)	
	Widowed	0(0)	1(0.9)	1 (0.5)	
Educational Level	No formal education	0(0)	4(3.5)	4 (2.0)	0.217
	Primary	6(6.9)	3(2.7)	9 (4.5)	
	Secondary	34(39.1)	49(43.4)	83 (41.5)	
	Tertiary	43(49.4)	50(44.2)	93 (46.5)	
	Others	4(4.6)	7(6.2)	11 (5.5)	
Employment Status	Full time	32(36.8)	19(16.8)	51 (25.5)	0.012
	Part time	7(8.0)	9(8.0)	16 (8.0)	
	Self-employed	44(50.6)	71(62.8)	115 (57.5)	
	Unemployed	3(3.4)	7(6.2)	10 (5.0)	
	Student	1(1.1)	7(6.2)	8 (4.0)	
Household Income	< 50,000	3(3.4)	37(32.7)	40 (20.0)	0.000
	50,000 – 100,000	30(34.5)	42(37.2)	72 (36.0)	
	100,000 – 200,000	25(28.7)	22(19.5)	47 (23.5)	
	200,000 – 500,000	25(28.7)	11(9.7)	36 (18.0)	
	> 500,000	4(4.6)	1(0.9)	5 (2.5)	
Residential Area	Urban	68(78.2)	65(57.5)	133(66.5)	0.007
	Semi-urban	13(14.9)	37(32.7)	50(25.0)	
	Rural	6(6.9)	11(9.7)	17(8.5)	
Ethnicity	Yoruba	77(88.5)	106(93.8)	183(91.5)	0.237
	Hausa	2(2.3)	4(3.5)	6(3.0)	
	Igbo	5(5.7)	2(1.8)	7(3.5)	
	Others	3(3.4)	1(0.9)	4(2.0)	

Source: (Field Survey, 2025)

Table 1 presents the sociodemographic characteristics of the respondents; with respect to the age of the participant, more than half 113 (56.5%) were female. The age distribution showed that the largest group of respondents were aged 26–35 years, representing about half 99 (49.5%). In terms of marital status, the majority of respondents were married 187 (93.5%). Regarding educational attainment, approximately half of the respondents had attained tertiary education 93 (46.5%). Employment status revealed that self-employment was the most common, accounting for more than half 115 (57.5%) of the respondents. Household income distribution indicated that few over one-third 72 (36.0%) earned between ₦50,000–₦100,000. With respect to residential location, the majority

resided in urban areas 133 (66.5%). Ethnic distribution showed that the Yoruba ethnic group predominated, with 183 (91.5%) respondents.

The majority of respondents in both genders were aged 26–35 years, though females had a slightly higher proportion in the 18–25 age group compared to males (31.9% vs. 14.9%, p = 0.002). Most participants were married, with no significant gender difference in marital status (p = 0.488). Educational attainment was generally high, with tertiary education being most common; however, differences by gender were not statistically significant (p = 0.217). Employment status showed a significant association with gender (p = 0.012), as males were more likely to be in full-time work, whereas females were more represented in self-employment and student categories. Household income also differed significantly by gender (p < 0.001), with males more frequently in higher income brackets (≥ 200,000) and females more concentrated in the lowest category (< 50,000). Residential area was significantly related to gender (p = 0.007), with males more often living in urban settings and females more in semi-urban areas. Ethnicity distribution showed no significant gender difference (p = 0.237), with Yoruba being the predominant ethnic group among both males and females.

Table 2. Edinburgh Postnatal Depression Scale (EPDS)

Variables		**Gender**		**Total n (%)**	**P**
		Male n (%)	**Female n (%)**		
Able to laugh and see the funny side of things	As much as always	67(77.0%)	85(75.2%)	152 (76.0%)	0.868
	Not quite so much	10(11.5%)	17(15.0%)	27 (13.5%)	
	Definitely less	7(8.0%)	7(6.2%)	14 (7.0%)	
	Not at all	3(3.4%)	4(3.5%)	7 (3.5%)	
Looked forward with enjoyment to things	As much as always	72(82.8%)	88(77.9%)	160 (80.0%)	0.510
	Less than usual	8(9.2%)	14(12.4%)	22 (11.0%)	
	Definitely less	3(3.4%)	8(7.1%)	11 (5.5%)	
	Hardly at all	4(4.6%)	3(2.7%)	7 (3.5%)	
Blamed self unnecessarily when things went wrong	Yes, most of the time	4(4.6%)	21(18.6%)	25 (12.5%)	0.000
	Sometimes	12(13.8%)	36(31.9%)	48 (24.0%)	
	Not often	26(29.9%)	39(34.5%)	65 (32.5%)	
	No, never	45(51.7%)	17(15.0%)	62 (31.0%)	
Felt anxious or worried for no good reason	No	47(54.0%)	37(32.7%)	84 (42.0%)	0.001
	Hardly ever	11(2.6%)	8(7.1%)	19 (9.5%)	
	Yes, sometimes	26(9.9%)	54(47.8%)	80 (40.0%)	
	Yes, very often	3(3.4%)	14(12.4%)	17 (8.5%)	
Felt scared or panicky for no very good reason	Yes, quite a lot	8(9.2%)	18(15.9%)	26 (13.0%)	0.001
	Yes, sometimes	12(13.8%)	35(31.0%)	47 (23.5%)	
	No, not much	17(19.5%)	26(23.0%)	43 (21.5%)	
	No, not at all	50(57.5%)	34(30.1%)	84 (42.0%)	
Things have been getting on top of me	Yes, most of the time	11(12.6%)	21(18.6%)	32 (16.0%)	0.004
	Yes, sometimes	15(17.2%)	36(31.9%)	51 (25.5%)	
	No, I have coped well	22(25.3%)	31(27.4%)	53 (26.5%)	
	No, as well as ever	39(44.8%)	25(22.1%)	64 (32.0%)	
	Yes, most of the time	16(18.4%)	21(18.6%)	37 (18.5%)	0.117
	Sometimes	8(9.2%)	21(18.6%)	29 (14.5%)	

Been so unhappy that I have had difficulty sleeping	Not often	18(20.7%)	29(25.7%)	47 (23.5%)	
	No, not at all	45(51.7%)	42(37.2%)	87 (43.5%)	
Felt sad or miserable	Yes, most of the time	2(2.3%)	18(15.9%)	20 (10.0%)	0.002
	Quite often	7(8.0%)	15(13.3%)	22 (11.0%)	
	Not often	25(28.7%)	35(31.0%)	60 (30.0%)	
	No, not at all	53(60.9%)	45(39.8%)	98 (49.0%)	
Been so unhappy that I have been crying	Yes, most of the time	6(6.9%)	20(17.7%)	26 (13.0%)	0.001
	Quite often	3(3.4%)	13(11.5%)	16 (8.0%)	
	Occasionally	6(6.9%)	16(14.2%)	22 (11.0%)	
	No, never	72(82.8%)	64(56.6%)	136 (68.0%)	
The thought of harming myself has occurred to me	Yes, quite often	2(2.3%)	15(13.3%)	17 (8.5%)	0.009
	Sometimes	7(8.0%)	16(4.2%)	23 (11.5%)	
	Hardly ever	2(2.3%)	5(4.4%)	7 (3.5%)	
	Never	76(87.4%)	77(68.1%)	153 (76.5%)	

Table 2 presents the Edinburgh Postnatal Depression scale of the respondents; majority 152(76.0%) were able to laugh and see the funny side of things as much as always. Similarly, majority160(80.0%) looked forward to things as much as always. Regarding self-blame when things went wrong, below one-quarter 25(12.5%) reported blaming themselves most of the time. Feelings of anxiety or worry without a clear reason were reported by approximately two out of five 80(40.0%), sometimes. In terms of feeling scared or panicky for no good reason, about half 84(42.0%) were not experiencing it at all. Sleep disturbances due to unhappiness were reported most of the time by less than one-quarter 37(18.5%), and not at all by about half 87(43.5%). Feelings of sadness or misery were experienced most of the time by below one-quarter20(10.0%), and not at all by about half 98(49.0%).

Episodes of crying due to unhappiness occurred most of the time in less than one-quarter 26(13.0%), while more than two-third 136(68.0%) never experienced it. Concerning thoughts of self-harm, few 17(8.5%) reported this quite often, while the majority, 153(76.5%), had never experienced such thoughts. Cross-tabulation of Edinburgh Postnatal Depression Scale (EPDS) items by gender showed several significant differences. Female respondents were significantly more likely than males to report blaming themselves unnecessarily ($p < .001$), feeling anxious or worried without reason ($p = .001$), feeling scared or panicky ($p = .001$), and feeling overwhelmed by problems ($p = .004$). Females were also more likely to report feeling sad or miserable ($p = .002$), crying more often ($p = .001$), and having thoughts of self-harm ($p = .009$).

No significant gender differences were found in the ability to laugh, enjoyment of activities, difficulty sleeping, or most other emotional symptoms, although females tended to report higher frequencies of distress in these areas.

About two-third (80.0%) were not depressed,53(26.6%) were probably depressed while 23(11.5%) were possibly depressed.

Participants' overall postnatal depression was determined based on their responses to 10 Edinburgh Postnatal Depression questions with questions 1, 2, and 4 scored 0 – 3 and 3, 5-10 scored 3 - 0; participants with total scores between (0 - 9), (10 - 12) and (13 - 30) were adjudged to have no depression, possible and probable depression respectively.

Table 3. Reproductive and Parental Health History

Variables		**Gender**		**Total n (%)**	**p**
		Male n (%)	**Female n (%)**		
Number of Children	1	32(36.8)	54(47.8)	86(43.0)	0.249
	2	31(35.6)	27(23.9)	58(29.0)	
	3	13(14.9)	20(17.7)	33(16.5)	
	4+	11(12.6)	12(10.6)	23(11.5)	
Age of Youngest Child	0–3 years	71(81.6)	82(72.6)	153(76.5)	0.180
	4–6 years	14(16.1)	21(18.6)	35(17.5)	
	7–12 years	2(2.3)	6(5.3)	8(4.0)	
	>12 years	0(0)	4(3.5)	4(2.0)	
Was the last pregnancy planned?	Yes	68(78.2)	77(68.1)	145(72.5)	0.150
	No	19(21.8)	36(31.9)	55(27.5)	
Complications during pregnancy or childbirth	Yes	19(21.8)	14(12.4)	33(16.5)	0.086
	No	68(78.2)	99(87.6)	167(83.5)	
If yes, type of complications experienced	Caesarean section	18(20.7)	10(8.8)	28(84.8)	0.100
	Baby complications	1(1.1)	1(0.9)	2(6.1)	
	Prolonged labour	0(0)	1(0.9)	1(3.0)	
	Abnormal positioning of the child	0(0)	2(1.8)	2(6.1)	
Experienced Complications postnatally	Yes	5(5.7)	6(5.3)	11(5.5)	0.100
	No	82(94.3)	107(94.7)	189(94.5)	
If yes, type of postnatal complications	Bleeding after discharge	5(5.7)	6(5.3)	11(100.0)	0.100
Primary caregiver of the child	Mother	27(31.0)	66(58.4)	93(46.5)	0.000
	Father	7(8.0)	8(7.1)	15(7.5)	
	Both equally	39(44.8)	36(31.9)	75(37.5)	
	Grandparent	10(11.5)	2(1.8)	12(6.0)	
	Others	4(4.6)	1(0.9)	5(2.5)	

Table 3 presents the reproductive and parental health history of the respondents; about half 86(43.0%) had one child. Regarding the age of the youngest child, the majority 153(76.5%) reported that their youngest child was between 0–3 years old. Most respondents, 145(72.5%), indicated that their last pregnancy was planned. Complications during pregnancy or childbirth were reported by below one-quarter 33(16.5%) of the respondents, whereas 167(83.5%) did not experience such complications. Among those who experienced complications, caesarean section was the most common, occurring in most 28(84.8%) cases. Postnatal complications were reported by a minority11(5.5%) respondents, with the remaining 189(94.5%) indicating no such issues. All those who experienced postnatal complications reported bleeding after discharge 11(100.0%). Regarding caregiving roles, about half 93(46.5%) stated that the mother was the primary caregiver.

Cross-tabulation of reproductive and parental health history by gender revealed that the number of children did not significantly differ between males and females (p = .249), with one child being the most common category for both genders. The age of the youngest child

also showed no significant gender differences (p = .180), though the majority in both groups had children aged 0–3 years. Whether the last pregnancy was planned was not significantly associated with gender (p = .150), though planned pregnancies were more common in both groups. Reports of complications during pregnancy or childbirth showed no significant gender differences (p = .086), with caesarean section being the most reported complication reported by both males and females. Postnatal complications were rare and did not differ significantly by gender (p = .100). A significant gender difference was found in the primary caregiver of the child (p < .001), with mothers being more frequently reported as primary caregivers in female respondents (58.4%) compared to males (31.0%), while fathers and grandparents were more commonly reported among male respondents.

Table 4. Sociocultural Factors Affecting Postnatal Depression

Variables	Categories	Gender		N (%)	p
		Male	Female		
In your community, do people believe men can experience postnatal depression	Yes	41(47.1)	49(43.4)	90(45.0)	0.356
	No	15(17.2)	29(25.7)	44(22.0)	
	Unsure	31(35.6)	35(31.0)	66(33.0)	
Feels there is stigma around mental health issues in your community?	Yes, a lot	23(26.4)	41(36.3)	64(32.0)	0.328
	Yes, but only for severe cases	30(34.5)	35(31.0)	65(32.5)	
	No	34(39.1)	37(32.7)	71(35.5)	
Ever sought help for emotional distress or mental health issues	Yes	15(17.2)	37(32.7)	52(26.0)	0.015
	No	72(82.8)	76(67.3)	148(74)	
Factors preventing people from seeking help for depression in community *	Stigma	x	x	28(11.6)	
	Lack of awareness	x	x	100(41.3)	
	High cost	x	x	48(19.8)	
	Lack of trust	x	x	58(24.0)	
	Other	x	x	8(3.3)	
Typically discuss emotional challenges with *	No one	x	x	18(8.7)	
	Partner	x	x	103(49.8)	
	Family	x	x	40(19.3)	
	Friends	x	x	15(7.2)	
	Religious leader	x	x	13(6.3)	
	Therapist	x	x	17(8.2)	
	Elderly people	x	x	1(0.5)	
Believe men and women experience depression differently?	Yes	72(82.8)	89(8.8)	161(80.5)	0.053
	No	1(.1)	10(8.8)	11(5.5)	
	Unsure	14(16.1)	14(12.4)	28(14.0)	

** Multiple responses allowed*

Table 4 presents sociocultural factors affecting postnatal depression; when respondents were asked whether people in their community believe men can experience postnatal depression, about half 90(45.0%) indicated yes. Regarding the presence of stigma around mental health issues in their community, about one-third 64(32.0%) believed there is a lot of stigma. When asked about help-seeking behavior, few over one-quarter 52(26.0%) had

ever sought help for emotional distress or mental health issues, while majority 148(74.0%) reported never seeking help. In terms of barriers preventing people from seeking help for depression, lack of awareness was the most reported factor 100(41.3%). Concerning who respondents typically discuss emotional challenges with partners were the most common option 103(49.8%). Finally, a large majority 161(80.5%) believed that men and women experience depression differently.

Analysis of sociocultural factors showed that beliefs about men experiencing postnatal depression and perceptions of mental health stigma did not differ significantly by gender ($p > .05$). However, females were significantly more likely than males to have sought help for emotional distress or mental health issues ($p = .015$). A higher proportion of both genders believed men and women experience depression differently, though this difference approached but did not reach statistical significance ($p = .053$).

Discussion

Interpretation of Findings

This study examined gender disparities in postnatal depression (PND) among parents in Southwestern Nigeria, focussing on prevalence, sociodemographic factors, and sociocultural impacts. PND impacts both mothers and fathers, however women predominantly suffer its consequences. Postpartum depression is influenced by social, economic, and cultural factors.

Gender-based Prevalence Variation

The prevalence of probable postnatal depression among respondents was 29.6%, indicating that nearly one in three parents had depression. This aligns with estimates from low- and middle-income countries (LMICs) such as Ethiopia (25–31%) and Kenya (28%) (17,18), however exceeds the rates observed in high-income nations (10–15%) (1,2). Women exhibited greater depression scores (34.5%) compared to men (24.1%), indicating that postnatal depression is more prevalent among women. This substantiates international research connecting hormonal fluctuations, psychosocial stress, and caregiving to female susceptibility (7,8,9). Nevertheless, the depressive symptoms in men indicate that paternal postnatal depression is an escalating public health concern, particularly in Africa (3,4,14). The findings corroborate Paulson and Bazemore's (10) assertion that paternal postpartum depression frequently coexists with maternal depression and is affected by emotional stress and societal standards of masculinity.

Sociodemographic Factors Contributing to Depression

Education, employment status, and social support exhibited a significant correlation with depression symptoms ($p < 0.05$). Tertiary education and stable employment were correlated with reduced depressive tendencies, indicating that socioeconomic empowerment and literacy serve as protective factors against emotional discomfort (6,17). Reduced education and precarious employment conditions may elevate financial stress and impair health literacy, rendering individuals susceptible to depression. Participants with considerable familial or spousal support exhibited markedly reduced depressive symptoms. Prior research has emphasised the significance of interpersonal networks and spousal involvement in postnatal mental health (9,16). Marital status and residential location were not statistically significant, indicating that social connections may have a greater impact on postnatal well-being than demographic factors.

Parental and Reproductive variables

The quantity of children, pregnancy intentions, and childbirth complications did not forecast depression. Nonetheless, 58.4% of mothers served as primary carers, in contrast to

31.0% of fathers. This imbalance exacerbates women's fatigue, stress, and emotional depletion, potentially elucidating their elevated rates of postpartum depression. Fathers facing economic difficulties but experiencing minimal caregiving stress typically withdraw emotionally rather than exhibit signs of depression [19]. The statistics substantiate the notion that gendered caregiving expectations influence emotional outcomes. Shared parenting and paternal postnatal care may mitigate these disparities and enhance familial stability [15, 20].

Social Stigma and its Influences

The research identified significant social factors affecting the perception and management of postnatal depression. Approximately 45% of respondents believed that men could have postnatal depression, whereas others were either uncertain or refuted this notion. This reflects Nigerian gender norms that stigmatise emotional distress, particularly in men, as a sign of weakness or spiritual affliction [11]. Thirty-two percent of respondents recognised mental health stigma, but only twenty-six percent had pursued assistance for emotional distress. The predominant obstacles to getting assistance were lack of awareness (41.3%) and cynicism towards mental health services (24.0%). Research indicates that cultural stigma and inadequate mental health literacy hinder Nigerians from pursuing treatment [8, 12]. Women exhibited a higher propensity to seek assistance compared to men (32.7% vs. 17.2%), illustrating the influence of gender norms on coping mechanisms. The hesitance of males to seek assistance illustrates masculinity standards that constrain emotional openness [7, 9]. Such trends underscore the necessity for culturally sensitive mental health education that challenges stigma and fosters open discourse around mental health across all genders.

Theoretical Implications

The findings are elucidated by Family Systems Theory, Social Relation Theory and Gender Role Theory. Family Systems Theory posits that emotional turmoil in one individual impacts other members. Consequently, maternal and paternal depression can influence familial harmony, communication, and neonatal development. Similarly Social Relations Theory elucidates how gendered roles and power dynamics influence mental health: women internalise shame and hopelessness whilst men display withdrawal or irritability. Comprehending these frameworks underscores that PND is not merely a maternal concern but a relational and societal issue that necessitates systemic remedies. These findings align with Oppong's investigation of paternal postnatal depression in African contexts [14] and Connell's framework on gender relations [15], both highlighting the social and relational mechanisms that influence emotional well-being. Gender Role Theory posits that societal standards dictate emotional expression. Nigerians anticipate that women would exhibit affection and emotionality, whereas men are instructed to embody strength and resilience [7, 15]. These gendered inclinations may elucidate the variations in depressive symptoms between genders.

Implications for Health Systems and Policy

The research indicates that Nigeria's maternal and child health system is deficient in thorough mental health assessments during postnatal treatment. Current initiatives prioritise physical rehabilitation and infant vaccination over mental health [12]. Routine postnatal appointments may incorporate screening tools such as the Edinburgh Postnatal Depression Scale (EPDS) for prompt identification and intervention. Integrate mental health as a fundamental aspect of postnatal care by educating healthcare professionals to recognise and address depression in both

mothers and fathers [16]. Paternity leave and couple-based counselling can alleviate maternal stress and foster emotional equilibrium. The stigma and ignorance surrounding mental illness must be confronted through educational initiatives at the community level. Healthcare professionals and religious organisations can enhance the acceptance of psychiatric treatment and encourage early help-seeking via public awareness initiatives [11, 12]. These strategies facilitate Sustainable Development Goal 3, which advocates for mental health and well-being for all.

Comparisons with Global and African Studies

The observed prevalence of 29.6% corresponds with estimates from comparable LMIC contexts, such as Ethiopia (25–31%) [17] and Kenya (28%) [18]. Nonetheless, it surpasses documented rates in industrialised nations, including 10–15% in Europe and North America [19]. Divergences may arise from economic strain, inadequate health systems, and insufficient social protection in Nigeria. The prevalence of paternal postpartum depression (PND) in this study (24.1%) aligns with findings from South Africa (21%) and Ghana (23%), indicating that African men similarly encounter emotional difficulties following childbirth [20].

Study Limitations

This work, however its merits, possesses significant drawbacks:

1. **Sample Size:** The final sample (n = 200) fell short of the projected 236 respondents due to challenges in recruiting fathers. While the power was adequate for significant comparisons, the precision for minor gender subgroups may be constrained.
2. **Measurement Bias:** The data relied on self-reported EPDS scores instead of clinical diagnoses, potentially introducing reporting bias.
3. **Cross-sectional Design:** This design prevents the establishment of causal links between variables.
4. **The study's contextual scope was confined to urban clinics in Ibadan;** rural people and other parts of Nigeria may exhibit variations in cultural attitudes and access to help.
5. **Gender Sensitivity:** Due to cultural norms, certain males may have underreported emotional symptoms because of the stigma linked to susceptibility.

Future research should consider utilising longitudinal designs, greater sample sizes, and mixed-method techniques to investigate temporal patterns and contextual subtleties in postnatal mental health.

Conclusion

This study concludes that Southwestern Nigeria faces a gender-sensitive, multifactorial issue of postnatal depression. Women experience heightened depression symptoms due to biological, caregiving, and sociocultural pressures, whereas men face under-acknowledged emotional challenges intensified by masculine ideals and societal expectations.
A thorough, family-oriented approach to postpartum depression encompasses mental health assessments in standard postnatal care, social support networks, collaborative parenting, and culturally sensitive education to mitigate stigma. These strategies will enhance child development in Nigeria, bolster family stability, and promote parental mental well-being.

Ethical Approval

The study was conducted in accordance with the most stringent ethical standards to guarantee the respect, dignity, and protection of all participants. In accordance with the Universal Declaration of Human Rights, the International Code of Medical Ethics, and the WHO Ethical

Guidelines for Health Research, ethical sanction was obtained from the Oyo State Ministry of Health Ethical Review Committee (Ref No: MOH/OY/2024/071). The purpose, procedures, potential hazards, and benefits of the study were fully disclosed to all participants. Prior to participation, written informed assent was obtained, and information sheets were distributed in both English and Yoruba to guarantee comprehension. Respondents were guaranteed the right to withdraw at any point without incurring any penalties, and participation was entirely voluntary. Anonymity and confidentiality were rigorously upheld. All identifiable data was eliminated from the records and substituted with codes. Hard copies were securely stored, and all electronic data was password-protected. In order to prevent identification, transcripts and quotations were anonymised. Participants were treated with empathy, and those who demonstrated distress were informed about available counselling and referral services, as postnatal depression is an emotionally sensitive condition. The investigation refrained from employing any form of coercion, deception, or undue influence. Data security and integrity were prioritised throughout the research process. After completion, all materials will be securely stored and kept confidential. The study was in accordance with the National Health Research Ethics Code of Nigeria (NHREC, 2011) and the Research Ethics Policy of Texila American University.

Conflict of Interest

There are no conflicts of interest.

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Data Availability Statement

The datasets produced and examined in this investigation are available and can be obtained from the corresponding author upon a reasonable request.

Author's Contribution

Adeola Oluwatobi Aminu conceived and designed the project, coordinated fieldwork, supervised data collection, and wrote the initial manuscript draft. Wakili Adelani Tijani provided overall supervision, technical mentorship, and guidance on study design and analysis. Fatimah Omobolanle Azeez facilitated the training of research assistants and oversaw field data gathering activities. Olalekan Amos Oladejo, Michael Oloyede Oladeji and Doubra Aanuoluwapo Onoviron collaboratively engaged in the review, editing, and proofreading of the final text draft to ensure intellectual clarity and consistency. All authors reviewed and sanctioned the final version of the text.

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