

Analysis of Risk Factors Contributing to Postpartum Depression: A Retrospective Case Study at Neuropsychiatric Hospital, Aro, Abeokuta

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ABSTRACT

Postpartum depression is a serious mental disorder after childbirth, harming mothers, infants, and families. Delayed recognition increases risks, leading to untreated illness, chronicity, and recurrence, significantly affecting social and cognitive health. This study aimed to assess the contributing factors influencing postpartum depression among mothers attending Neuropsychiatric hospital, Aro, Abeokuta, Ogun State in the last 10 years.

This descriptive retrospective study involved 50 patient records which were selected using the purposive sampling method of the available patient records at the research setting. The checklist for data collection was compared with the literature review on the research topic and reviewed by experts in the field of nursing and midwifery to ensure content validity. The reliability of the instrument was assessed through test-retest method which yielded reliability index of 0.70. The data was collected using a checklist and results were presented in tables using the Statistical Package for Social Science (SPSS) version 26.

This study revealed that participants, all within reproductive age, experienced postpartum depression. Social factors included lack of social support (50%) and breastfeeding difficulties (2%). Psychological contributors were dominated by financial difficulties (40%), alongside fewer cases of domestic violence and marital problems. These findings highlight the multifaceted nature of postpartum depression, shaped by both social and psychological determinants among affected mothers.

This study concluded that Postpartum depression is multifactorial, influenced by psychological, obstetric, and social factors, with key risks including poor relationships, domestic violence, financial stress, psychiatric history, caesarean section, hypertension, breastfeeding challenges, and multiple births.

Keywords: Factors, Postpartum, Depression, Postpartum-period, Mental-health.

INTRODUCTION

Postpartum depression has not been given much attention among families in the society which eats deeply into new mother's mental health and can affect the growth and development of her child. It is understood to

be postpartum blues, but postpartum depression is totally different from it as postpartum blues is a very common but self-limited condition that begins shortly after childbirth and can present with a variety of symptoms such as mood swings, irritability and tearfulness (1).

For a woman, the gestation of her first child has been identified as a central life event (2). The woman's mental self-representation enriches with the maternal component, thus leading her to review the relationship with her own mother; the mental couple image gradually modifies with integration of the family image, and the

marital relationship reorganized with the parental component (1). From a psychological perspective, in fact, the pregnancy of the first baby involves the transition to motherhood, a major developmental period with important implications for mothers, for the infant-mother relationship, and the infant's development (3).

There are other clinical aspects linked to pregnancy and delivery that are associated to the postpartum depression condition. A complicated labour and birth characterized by longer length of labour and greater pain, or medical intervention during delivery, can result in negative consequences, varying from maternal distress to postpartum depression. Given that the nulliparous tend to be less self-confident in the maternal role, and that being less self-confident has been associated with postpartum depression, labor and delivery complications can be particularly difficult for first-time mothers. So, some socio-demographic characteristics, such as a young age, or low level of education, or low income, may be considered linked to a higher probability of developing postpartum depression.

Postpartum period is vulnerable to psychosis and depression which affects a significant number of women, often ending in tragic consequences. In Western countries, the prevalence of postpartum depression varies from 10 to 15% during the first year after birth. According to a systematic review of 47 studies from 18 low and lower-middle income countries, the prevalence is 18.6% (4). Postpartum depression can have far-reaching negative consequences for a woman, her child, and the entire family. Depressive symptoms in the postpartum period remain under-detected because many women do not seek help. This is problematic because postpartum depressive symptoms are associated with marital problems (5), weakened social support networks, later episodes of depression (6), child behavioral and emotional problems in early childhood (7).

Moreover, assessment in the earliest part of the postpartum period could allow health care providers to identify women who should be monitored closely throughout the postpartum period (8), because postpartum depression has been perceived to have severely negative impacts and consequences on new mothers and her family and it remain highly undetected as it may be classified as a spiritual problem within uninformed community and society which will be left untreated (9, 10).

However, following multiple logistic regression, having postpartum blues, not getting help with caring for the baby, experiencing intimate partner violence and having an unsupportive partner were identified as predictors of postpartum depression. Proper management of postpartum illnesses by clinical or public health intervention requires reliable identification of risks factors. Unfortunately, the risk factors related to Postpartum depression are poorly understood (11). Hence, this study aimed to assess the contributing factors influencing postpartum depression among mothers attending Neuropsychiatric hospital, Aro, Abeokuta, Ogun State in the last 10 years.

METHODOLOGY

Study Area

The study was conducted in NeuroPsychiatric hospital, Aro, Abeokuta, Ogun State. The NeuroPsychiatric Hospital Aro, Abeokuta is a mental health care Federal Institution with a rich historical legacy since inception as a world acclaimed first purposed-built psychiatric hospital in Nigeria.

Study Design

The study adopted descriptive retrospective research design (used to analyzes past records or events to identify patterns, relationships, and outcomes without manipulating variables) which focused on the assessment of

contributing factors to postpartum depressive signs among mothers who gave birth in the last 10 years attending NeuroPsychiatric hospital, Aro, Abeokuta.

Study Population

The target population of this study consists of mothers who have been diagnosed of postpartum depression in the last 10 years attending Neuropsychiatric hospital, Aro, Abeokuta, Ogun State.

Sample Size

The total number of mothers diagnosed with postpartum depression within the year 2014-2023 was used to identify the number of population that will be used. A total of 50 case notes was able to be retrieved at the record

department. All of these was used for the course of this study.

Table 1: The total number of mothers diagnosed with postpartum depression within the year 2014-2023

YEAR	NO OF CASE NOTES
2014	1
2015	5
2016	5
2017	6
2018	5
2019	5
2020	1
2021	7
2022	8
2023	7
TOTAL	50

Source: Patient File Records(NPHA), 2024.

Sampling Technique

A Purposive sampling technique was used to obtain data. This was adopted because it is use to selects participants with specific characteristics relevant to the study, ensuring focused, rich, and meaningful data collection, especially useful in exploring specialized health issues like postpartum depression.

Study Instrument and Validation

A standardized well-structured checklist was constructed using research questions relevant to the subject matter. The checklist was reviewed, corrected and validated by three experts from the field of Nursing and Midwifery.

Reliability of Instrument

Reliability of instrument (data analysis method) ensures the same results is yielded no matter the number of times the instrument is used. The reliability of the instrument of this study was tested using the pretest method at the Outpatient department, Lantaro with 30 patients and it yielded a p-value of 0.70. The data provided in the case notes is of great integrity and trustworthiness because it is obtained from the patient during history taking and it would always remain the same until patient prove otherwise.

Method of data collection

Data was collected through document analysis of record books and journals made available at the research setting. The researcher collected the necessary data needed and analyzed them in an appropriate technique. Case notes of patients who attend the General medical practice clinic was sourced for at the Record department.

Ethical Considerations

A permission letter was obtained from College of Nursing Science, Oba Ademola II School of Midwifery, Idi Aba. Ethical clearance was obtained from Neuro-Psychiatric hospital, Aro, Abeokuta, before the study was carried out to fulfill all ethical honour. The informed consent to carry out the research was sourced out from the patients' case notes. Confidentiality of the information gotten was maintained and will be strictly used for academic purposes.

Data Analysis

The data generated was analyzed and processed using the Statistical Package for Social Science (SPSS) version 26. The results were represented using findings as headings, percentage and bar graphs. A quantitative analysis method was used to report findings.

RESULTS

Socio-Demographic

Table 2: Socio-Demographic data of the patients. Sample size = 50

	Frequency	Percentage
Age (years)		
21-30	33	66.0%
31-40	13	26.0%
41-50	4	8.0%
Mean age $\pm$ SD	30.00 $\pm$ 6.48	
Ethnicity		
Fulani	3	6.0%
Hausa	7	14.0%
Igbo	9	18.0%
Yoruba	31	62.0%
Occupation		
Corp member	1	2.0%
Student	6	12.0%
Self employed	31	62.0%
Unemployed	12	24.0%
Marital status		
Divorced	4	8.0%

Married	39	78.0%
Single	7	14.0%
Religion		0.0%
Christianity	28	56.0%
Islam	17	34.0%
Others	5	10.0%

Table 2 shows the socio-demographic data of the patients. A total of 66.0% were within 21-30 years, 26.0% were within 31-40 years, 8.0% were within 41-50 years respectively with a mean age of 30.00 ± 6.48 years. The ethnicity of the respondents was Fulani (6.0%), Hausa (14.0%), Igbo (18.0%) and Yoruba (62.0%). The occupation of the respondents was Corps member (2.0%), student (12.0%), and self-employed (62.0%) while (24.0%) were unemployed. A total of 8.0% were divorced, 78.0% were married and 14.0% were single. The respondents practiced Christianity (56.0%), Islam (28.0%) and other religion (10.0%).

Table 3: Medical History of the Patients

	Frequency	Percentage
Delay in speech development when growing up	1	2.0
Diabetes mellitus	2	4.0
Caesarean section	7	14.0
Hypertension in pregnancy	5	10.0
Oedema	3	6.0
Surgical history of removed breast lumps	1	2.0
Tremor	1	2.0
Gestational Diabetes	1	2.0
Nil	29	58.0
Duration of illness		
0-5 years	40	80.0
6-10 years	8	16.0
Above 10 years	2	4.0
Family history		
History of psychiatric illness	10	20.0
Nil history of psychiatric illness	40	80.0
Suicidal and homicidal ideation		
Yes	18	36.0
No	32	64.0

Field Survey, 2024.

Table 3 shows the medical history of the patients. A total of 2.0% had history of delay in speech development when growing up, 4.0% had history of diabetes mellitus, caesarean section 14.0%, 10.0% had case of hypertension in pregnancy, 6.0% had oedema, and 2.0% had surgical history of removed breast lumps, gestational diabetes and tremor respectively. A total of 58.0% had nil medical history. The duration of illness showed that 80.0% were ill between 1-5 years and 16.0% were ill between 6-10 years and 4.0% were above 10 years. A total of 20.0% had family history of psychiatric illness. A total of 36.0% had suicidal and homicidal ideation.

Table 4: Treatment History of Patients

Previous treatment	Frequency	Percentage
Orthodox at a private hospital	5	10.0
Orthodox at a private hospital, spiritual therapy	3	6.0
Orthodox at a psychiatric hospital	1	2.0
Orthodox at FMC	1	2.0
Private hospital at Oyo State	1	2.0
Spiritual therapy	18	36.0
Treated at home by family member	3	6.0
Nil	18	36.0

Field Survey, 2024.

Table 4 shows the previous treatment history of the patients was orthodox at a private hospital (10.0%), orthodox at a private hospital and spiritual therapy (6.0%), orthodox at a psychiatric hospital (2.0%), orthodox at FMC (2.0%), private hospital at Oyo state (2.0%), spiritual therapy (36.0%) and treated at home by family member (6.0%).

Table 5: Obstetric History of the Patients

Parity status	Delivery mode	Frequency	Percentage
1	Vaginal delivery, eventful	10	20.0
1	Vaginal delivery, uneventful	19	38.0
1	Caesarean section, eventful	1	2.0
2	Vaginal delivery, eventful with prolonged labour and foetal distress	2	4.0
2	Vaginal delivery, haemorrhage during childbirth, eventful	2	4.0
2	Vaginal delivery, uneventful	4	8.0
3	Vaginal delivery, uneventful	4	8.0
4	Caesarean section, eventful	2	4.0
4	Vaginal delivery, uneventful	2	4.0

6	Vaginal delivery, eventful	2	4.0
6	Vaginal delivery, uneventful	2	4.0

Field Survey, 2024.

Table 5 shows the obstetric history of the patients. Among those with a parity status, 20.0% had eventful vaginal delivery, 38.0% had an uneventful vaginal delivery and 2.0% had an eventful caesarean section. For those with two parity status, 4.0% had eventful vaginal delivery with prolonged labour and foetal distress, 4.0% had eventful vaginal delivery with haemorrhage during childbirth and 8.0% had an uneventful vaginal delivery. A total of 8.0% of those with three parity level had an uneventful vaginal delivery while those with four parity level had an eventful caesarean section (4.0%) and uneventful vaginal delivery (4.0%). A total of 4.0% of those with six parity level had an eventful and uneventful vaginal delivery respectively.

Table 6 : Psychological Factors Contributing to the Incidence of Postpartum Depression Among the Patients

	Frequency	Percentage
Stressor		
Psychological Factors		
Conflict with father, history of maltreatment from step mother	2	4.0
Domestic violence	2	4.0
Family problems leading to divorce	1	2.0
Financial difficulties	3	6.0
Got pregnant out of wedlock	3	6.0
Has extramarital affairs before becoming pregnant and unsure of paternity of child	1	2.0
Infant was diagnosed with talipes	1	2.0
Job loss during pregnancy	1	2.0
Relationship issue with husband	4	8.0
Husband infidelity	1	2.0
Thinking about husband not coming home regularly	1	2.0
Marital problems; domestic violence, currently separated from husband	1	2.0

Field Survey, 2024.

Table 6 shows the psychological factors contributing to the incidence of postpartum depression among the patients. Conflict with father and history of maltreatment from step mother (4.0%), domestic violence (4.0%), family problems leading to divorce (2.0%), financial difficulties (6.0%), pregnancy out of wedlock (6.0%), extramarital affairs prior pregnancy and uncertain about paternity of child (2.0%), infant was diagnosed with talipes (2.0%), job loss during pregnancy (2.0%), relationship issue with husband (8.0%),

husband infidelity (2.0%), thinking about husband not coming home regularly (2.0%) and marital problems; domestic violence, currently separated from husband (2.0%) were the psychological factors contributing to the incidence of postpartum depression among the patients.

Table 7: Obstetric Factors Contributing to the Incidence of Postpartum Depression Among the Patients.

Obstetric factors	Frequency	Percentage
Had breastfeeding difficulties	2	4.0
Had vacuum assisted delivery which was prolonged	1	2.0
Not the sexual preference of mother	1	2.0
Postpartum haemorrhage after delivery	1	2.0
Pregnancy and postpartum complications	1	2.0
Labour difficulties	3	6.0
Hypertension	1	2.0
Postpartum events	1	2.0
Wanted a baby boy after multiple girls because her husband will send her packing	2	4.0

Field Survey, 2024.

Table 7 show the obstetric factors contributing to the incidence of postpartum depression among the patients include breastfeeding difficulties (4.0%), prolonged vacuum assisted delivery (2.0%), not birthing the sexual preference of mother (2.0%), postpartum haemorrhage (2.0%), pregnancy and postpartum complications (2.0%), labour difficulties (6.0%), hypertension (2.0%), postpartum events (2.0%), desire to have a baby boy after five girls (2.0%) and after three girls (2.0%) so the husband will not send her packing.

Table 8: Social Factors Contributing to the Incidence of Postpartum Depression Among the Patients

Social factors	Frequency	Percentage
Social support		
Has good social support	27	54.0
No social support	23	46.0
Social history		
Background use of shisha 3 years ago, had baby out of wedlock, breastfeeding difficulties faced	2	4.0
Drinks alcohol occasionally	4	8.0
Has two children for two different men	1	2.0
History of alcohol and substance abuse	8	16.0
Nil	35	70.0

Field Survey, 2024.

On the social support, table 8 show that 54.0% had good social support, while 46.0% had no social support. The social history of the patients showed that 4.0% had background use of shisha 3 years ago, had baby out of wedlock, breastfeeding difficulties faced, 8.0% had history of alcohol drinking, 2.0% had two children for two different men and 16.0% had history of alcohol and substance abuse.

Table 9: Presenting Complaints of the Patients

	Frequency	Percentage
History of irrational speech, violent behavior	19	38.0
Insomnia	36	72.0
Nonchalant attitude towards baby, Expresses she has a feeling of dying	7	14.0
Feeling guilt	2	4.0
Selectively mute	5	10.0
Forgetfulness	5	10.0
Poor appetite	12	24.0
Poor social interaction	5	10.0
Forgetfulness	3	6.0
Withdraw to self	6	12.0
Banging and shaky head	3	6.0
Hear and see strange things in clear Consciousness	15	30.0
Believes family has malevolent intention towards her	6	12.0
Irritable at little or no provocation	9	18.0
Absent minded	4	8.0
Visual and auditory hallucination	10	20.0
Irrational and incoherent speech	9	18.0
Extravagant spending	3	6.0
Restlessness	22	44.0
Suicidal attempt	3	6.0

Field Survey, 2024.

Table 9 shows the presenting complaints of the patients. A total of 38.0% had history of irrational speech, 36.0% had episodes of insomnia, 6.0% presented forgetfulness, banging and shaky head, overthinking, extravagant spending, poor personal hygiene, suicidal attempt, aimless wandering and irrational thoughts as complaints respectively. In addition, 14.0% had records of nonchalant attitude towards baby, hear unseen people in clear consciousness and believes family has malevolent intention towards her respectively.

Furthermore, 20.0% had visual and auditory hallucination, 30.0% hear and see strange things in clear consciousness, 44.0% were restlessness and 6.0% had suicidal attempt.

Table 10: Premorbid Personality of the Patients

	Frequency	Percentage
Stubborn	4	8.0
Not sociable	4	8.0
Religious	3	6.0
Happy	4	8.0
Easy going	6	12.0
Gentle	6	12.0
Introvert	9	18.0
Good relationship with family members	3	6.0
Extrovert	5	10.0
Sociable	3	6.0
Hardworking	3	6.0

Field Survey, 2024.

Table 10 shows the premorbid personality of the patients. The personality showed that the patients were stubborn (8.0%), not sociable (8.0%), religious (6.0%), happy (8.0%), easy going (12.0%), gentle (12.0%), introvert (18.0%), extrovert (10.0%) and had good relationship with family members (6.0%). Furthermore, some patients sociable (6.0%), hardworking (6.0%).

Table 4.6: Insight of the patients

	Frequency	Percentage
Lack insight, not oriented about the three spheres of life	27	54.0
Insightful, hallucination is present, oriented to three spheres of life	10	20.0
Oriented to three spheres of life, memory intact, coherent and rational speech	9	16.0
Alert and fully oriented to time, place and person, memory intact, judgement fair but lacks insight	5	10.0

Field Survey, 2024.

Table 11 shows the insight record of the patients. A total of 54.0% lacked insight, not oriented about the three spheres of life. In addition, 20.0% was insightful, hallucination is present, oriented to three spheres of

life; calm, conscious and alert, mute and alert and fully oriented to time, place and person, memory intact, while 16.0% was oriented to three spheres of life, memory intact, coherent and rational speech.

DISCUSSION

In this study, factors contributing to the incidence of postpartum depression among the patients were identified under psychological, obstetric and social factors. The psychological factors influencing postpartum depression include poor relationship with family members, cases of divorce due to family issues, financial problems, extramarital affairs, marital issues, and domestic violence. This was in consistent with the work of Inthaphatha, *et al.* (12) who opined that family crisis, extramarital affairs, unintended pregnancy, management of delivery cost by borrowing and selling or mortgaging assets due to financial incapability and intimate partner violence were identified as risk factors.

The findings of this present study also revealed that lack of social support from spouse/partner, and mother as well as history of alcohol and substance abuse, previous history of psychiatric illness like epilepsy and seizure disorder (16.0%), mental and behavioural disorder (10.0%), previous depression (2.0%) and relapse of postpartum depression (6.0%) were seen as risk factors of postpartum depression. This is in agreement with the report of Agrawal, *et al.* (13) who identified lack of spousal and social support, previous psychiatric illnesses, a negative birth experience, and a history of abuse as major risk factors.

The present study shows that breastfeeding difficulties (2.0%), pregnancy and postpartum complications (2.0%), parity status and baby gender, multiple birth, lack of insight regarding the three spheres of life and lower socioeconomic factors were factors contributing to the incidence of postpartum depression among the patients. This commensurate with the study of Agrawal *et al.* (13) who reported that lower socioeconomic factors, parity status, and multiple births were found to have a consistent correlation with postpartum depression. In addition, the work of Alao *et al.* (14) showed that poor breastfeeding support, polygamous family setting and baby gender were found to be significantly associated with postpartum depression.

The medical history of the patients showed history of caesarean section, hypertension, high blood pressure, oedema, surgical operation and primary diagnosis with postpartum depression with psychosis and this was consistent with results of previous studies (11, 12, 13).

CONCLUSION

This study established that postpartum depression is a multifactorial condition influenced by psychological, obstetric, and social determinants. Key psychological contributors included poor marital relationships, domestic violence, financial challenges, and previous psychiatric history. Obstetric and medical conditions such as caesarean section, hypertension, breastfeeding difficulties, and multiple births were also significant risk factors.

RECOMMENDATION

1. Healthcare providers should implement family-centered interventions that involve spouses and immediate family members in maternal care, emphasizing the importance of emotional, financial, and social support to reduce the risk of postpartum depression.
2. Screening for mental health issues such as previous psychiatric illness, depression, and substance abuse should be incorporated into antenatal and postnatal care services to enable early detection and prompt intervention.
3. Public health campaigns and hospital-based programs should promote awareness of postpartum depression, breastfeeding support, and maternal self-care, especially among women from low socio-economic backgrounds, to reduce stigma and improve health-seeking behavior.

DECLARATION

Data Availability Request

The data generated during the study will be provided on a reasonable request from the corresponding author.

Declaration of interests Statement

We wish to confirm that there are no known conflicts of interest associated with this publication, and there has been no significant financial support for this work that could have influenced its outcome.

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