

Phenomenology And Outcome Of Post-Partum Psychosis In A Cohort Of Women Seen At The University Of Port Harcourt Teaching Hospital

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Abstract

Background

Postpartum psychosis (ppp) is a relatively rare condition, with no known aetiology and no accepted definition. Current psychiatry nosology has not classified ppp as a distinct disorder, and is currently a manic, mixed, or major depressive episode with psychotic features or psychotic disorder nos or brief psychotic disorder occurring within four weeks post-partum.

Objectives

The objectives were to determine the presenting symptoms of postpartum psychosis, to determine the prevalence of mania, depression and mixed mood episodes in the postpartum period and to determine if diagnostic criteria for bipolar disorder spectrum is met in postpartum psychosis.

Methods

A retrospective cross-sectional study spanning 3 years (2020 – 2022) of women in the postpartum period with a secondary diagnosis of postpartum psychosis who presented at both the obstetrics and gynaecology department or the neuropsychiatry department. Case file of participants that met the study inclusion criteria were retrieved at the department of obstetrics and gynaecology and the department of neuropsychiatry. Data was analysed using statistical packages for social sciences (spss) version 25.

Results

Mean age of participants was 31.1 years, 80% were married and about half were unemployed, 60% and 30% had tertiary and secondary education respectively. Insomnia was the most reported symptom in all participants (80%), retardation was seen in 60% of participants, and fatigue and depressed mood occurring in 50% of the participants each. Irritable mood and talkativeness were most common mania symptoms (75% of patients meeting criteria for mania) and depressed mood occurred in all participants who met the criteria for depression with psychosis. 40% of the women had no postpartum associated diagnosis, 20% had postpartum anaemia, diagnosis of 10% could not be ascertained, and 10% each had intrapartum haemorrhage / cancer, wound sepsis and pih respectively. 50% delivered via caesarean section and 40% through spontaneous vaginal delivery (svd). 90% of the neonates lived while only 10% died. 90% of the participants met the criteria for a dsm diagnosis with 50% having depressive episodes while 40% had mania symptoms.

Conclusion

The maternal and fetal outcome were positive, and this study builds the foundation for further investigation on the phenomenology of postpartum psychosis using a prospective study design where every woman who presents at the obstetrics and gynaecology department of upth is screened for postpartum psychosis, and those who screen positive are deeply phenotyped.

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I. Introduction

The presence of psychiatric illness in the postpartum has been evident for centuries. Esquirol in the 19th century described 92 women with post-partum psychosis. In his description, 53% of the women had predominantly manic symptoms, 38% depressive symptoms and 9% had non-affective psychosis¹. Marcé in 1858 gave a detailed clinical description of 79 women with post-partum disorders, though this included women with delirium and infections¹.

Population-based registers of patients admitted into psychiatric facilities gave a lifetime incidence for first onset post-partum psychosis of 0.25 to 0.6 per 1,000 births¹. Postpartum psychosis has an incidence rate of 0.89-2.6 per 1000 women and a prevalence of 5 in 1000 women². This shows how relatively rare this disorder

seems to be. The relative risk of first-onset postpartum psychosis is 23 times higher within four weeks of delivery compared to any other period in a woman's life. The postpartum period is also a high-risk period of relapse for women who have a previous psychiatric history. Women with postpartum psychosis have also been shown to be at an increased risk of schizophrenia, bipolar disorder and major depressive disorder².

The aetiology of postpartum psychosis is poorly understood. Hormonal changes, immune factors, genetics, and circadian rhythm dysfunction have all been implicated in its aetiology either as causative factors or triggers. Other factors implicated in increasing the risk to postpartum psychosis include primiparity, reproductive events (such as resumption of menstruation or abrupt stoppage of breastfeeding), use of antidepressants and for women who are being treated for bipolar disorder, stoppage of psychotropic medications². Adverse life events have so far not been implicated as risk factors for postpartum psychosis.

Phenomenology of postpartum psychosis

There is no accepted definition of postpartum psychosis and there is a lack of clarity on the number of symptoms and duration of symptoms for a diagnosis of postpartum psychosis. Current psychiatry nosology has not classified postpartum psychosis as a distinct disorder^{2,3}. There is confusion if it is a separate diagnostic entity or if it is a nosological entity within the bipolar disorder spectrum⁴. Postpartum psychosis is currently a manic, mixed, or major depressive episode with psychotic features or psychotic disorder nos or brief psychotic disorder occurring within four weeks post-partum². The presenting clinical features are varied and depends on the underlying psychiatric disorder. While confusion and perplexity are common, sleep loss has been found to be an early symptom, followed by restlessness, irritability, fluctuating mood, and concern over trivial matters⁵. Mood incongruent delusions often relating to the theme of childbirth may be present. Delusions may be of altruistic homicide and this increases the risk of suicide and infanticide⁵. Suicidality is more common in women with postpartum psychosis. 38% of women hospitalised with postpartum psychosis are said to have suicidal ideation and 18% would have attempted suicide in the first episode⁶.

Women diagnosed with bipolar disorder have an increased risk of a relapse in the postpartum period. This risk is 160-320 times more than in the general population⁷. Despite the burden and negative outcome of the disorder, there is little data on postpartum psychosis globally.

Methodological limitations of studies on postpartum psychosis have prevented extensive evidence-based recommendations for the prevention and treatment of postpartum psychosis to be made. Well-designed prospective studies are needed to not only determine the efficacy of preventive and treatment strategies, but to also improve the understanding of this condition.

Aim and objectives

The overall aim of this study is to understand the phenomenology of postpartum psychosis and its naturalistic outcome in a cohort of women who presented with psychosis in the postpartum period at the university of port harcourt teaching hospital.

Objectives

1. To determine the presenting symptoms of postpartum psychosis
2. To determine the prevalence of mania, depression and mixed mood episodes in the postpartum period
3. To determine if diagnostic criteria for bipolar disorder spectrum is met in postpartum psychosis.

II. Methods

Study design

This was a retrospective cross-sectional study spanning 3 years (january 2020 – december 2022) of women in the postpartum period with a secondary diagnosis of postpartum psychosis or a referral to the neuropsychiatric team on call during the postpartum period who presented at both the obstetrics and gynaecology department or the neuropsychiatry department.

Study procedure

Researchers collated a list of case file numbers from the nurses' registers at both the department of obstetrics and gynaecology and the department of neuropsychiatry for participants that met the study inclusion criteria. This list was then sent as part of the application to the medical health records department for the release of the identified medical records.

Following approval, sociodemographic and clinical information were collected using the study instrument. All collated information were stripped of identifiable information and each participant issued a research number. Collated data was transferred to an excel spreadsheet on a password protected research laptop.

Eligibility criteria

1. All women who had a neuropsychiatric event in the first 6 months of delivery
2. Participants whose case files contain a full psychiatry history to enable a clinical diagnosis of postpartum psychosis.

Sample size and data analysis.

A total of 10 participants' medical records meeting the eligibility criteria were included in this study. Missing data were managed on a listwise basis so as not to reduce the already small sample size. Data was analysed using statistical packages for social sciences (spss) version 25. Results were displayed as tables and charts and only descriptive statistical analysis was carried out.

III. Results

Table 1 shows the demography of the women that participated in the cohort study. The mean age of participants was 31.1 years, 80% were married and about half were unemployed. Furthermore, the educational status revealed that 60% of the women had a tertiary level, 30% had secondary level, while the educational level of 10% could not be ascertained.

Table 2 displays the frequencies of the presenting psychiatric symptoms observed in the participants. For the mania symptoms, irritable mood and talkativeness were the most common with 75% occurrence respectively, while elevated mood, flight of ideas and increased goal directed activity, were least observed with 25% occurrence respectively. For the depression symptoms, insomnia, psychomotor retardation and fatigue had 100% occurrence respectively, while suicidality had 0% occurrence. Similarly, the non-mood specific symptoms had sleep disturbance as the most frequently observed at 88.9%, while hallucination was the least occurred at 11.1%.

The obstetric care and outcome are presented in table 3. 60% of the patients were booked (received antenatal care at the department of obstetrics and gynaecology), while 40 % were unbooked. At antenatal admission, 30% of the women had no complaints and hence no diagnosis, 20% of the participants presented in a psychotic state, 10% of the participants presented with early labour, pregnancy-induced hypertension (pih) and eclampsia + sepsis 35/52wks respectively, while the diagnosis of 30% of the participants could not be ascertained during antenatal admission. However, 5 (50%) of the women delivered via caesarean section, 4 (40%) through spontaneous vaginal delivery (svd), while the mode of delivery for 1(10%) of the women could not be ascertained. The foetal outcome showed that 90% of the neonates were alive and only 1 (10%) had intrauterine foetal death. Furthermore, 40% of the women had no postpartum associated diagnosis, 20% had postpartum anaemia, diagnosis of 10% could not be ascertained, and 10% each had intrapartum haemorrhage / cancer, wound sepsis and pih respectively. The antenatal outpatient diagnosis further revealed that 30% of the women were known to have psychiatric history though the diagnosis was not available, 20% had pih, 10% had no diagnosis, while the diagnosis of 40% could not be ascertained.

Figure 1 showed that 90% of the participants met the criteria for a dsm 5 diagnosis of a mood episode. Ninety percent (n=9) of all participants were managed with haloperidol, 80% had a daily dose of 5mg while antidepressants were prescribed to only 2 (20%) of the participants. Only 1 participant was unstable at discharge. 1 (10%) participant had a repeat mood episode within the 2 year period and this episode was a depressive episode. None of the participants had a co-morbid medical history at the time of data retrieval.

Table 1: demography of study participants (n = 10)

Variable	Obs	Mean	Std. Dev.
Age	9	31.11	4.68
Employment	Freq.	Percent	
Full time	3	37.5	
Part time	1	12.5	
Unemployed	4	50	
Total	8	100	
Marital status			
Married	8	80	
Single	2	20	
Total	10	100	
Ethnicity			
Igbo	4	40	
Others	6	60	
Total	10	100	

Educational status			
Secondary	3	33.33	
Tertiary	6	66.67	
Total	9	100	

Table 2: frequency of symptoms or phenomenology (n=10)

Mania symptoms	Frequency	Percent
Elevated/expansive mood		
Absent	9	90
Present	1	10
Total	10	100
Grandiosity		
Absent	7	70
Present	3	30
Total	10	100
Irritable mood		
Absent	9	90
Present	1	10
Total	10	100
Decreased need for sleep		
Absent	8	80
Present	2	20
Total	10	100
Talkativeness		
Absent	7	70
Present	3	30
Total	10	100
Flight of ideas		
Absent	9	90
Present	1	10
Total	10	100
Distractibility		
Absent	9	90
Present	1	10
Total	10	100
Increased goal directed activity		
Absent	9	90
Present	1	10
Total	10	100
Excess involvement in activities		
Absent	7	100
Total	7	100
Depressed mood		
Absent	5	50
Present	5	50
Total	10	100
Diminished interest		
Absent	5	50

Present	5	50
Total	10	100
Weight change		
Absent	8	80
Present	2	20
Total	10	100
Insomnia		
Absent	2	20
Present	8	80
Total	10	100
Retardation		
Absent	4	40
Present	6	60
Total	10	100
Fatigue		
Absent	5	50
Present	5	50
Total	10	100
Inappropriate guilt		
Absent	8	80
Present	2	20
Total	10	100
Indecisiveness		
Absent	7	70
Present	3	30
Total	10	100
Thought of death		
Absent	9	90
Present	1	10
Total	10	100

Mania symptoms n=4	Percentage (%)
Elevated/expansive mood	25
Irritable mood	75
Decreased need for sleep	50
Talkativeness	75
Flight of ideas	25
Increase goal directed activity	25
Depression symptoms n = 5	
Decreased mood	80
Diminished interest	80
Insomnia	100
Psychomotor retardation	100
Fatigue	100
Suicidality	0
Non-mood symptoms n = 10	
Thoughts of death	22.2
Delusions	44.4
Hallucination	11.1
Sleep disturbance	88.9
Disorganised behaviour	77.8

Table 3: obstetrics care and outcome (n=10)

Booking status	Antenatal admission	Antenatal outpatient diagnosis	Mode of delivery	Indication of caesarean section	Fetal outcome	Postpartum associated diagnosis
Booked	Not stated	Known psychiatric history	Spontaneous vaginal delivery(svd)	Nil	Alive	None
Booked	Not stated	Known psychiatric history	Caesarean section	Not stated	Alive	None
Booked	Recurrent acute psychotic episodes	Not stated	Svd	Nil	Alive	None
Booked	None	Pih	Caesarean section	Previous pih/fatal distress	Alive	Intrapartum haemorrhage / cancer
Unbooked	None	None	Svd	Nil	Alive	Postpartum anaemia
Unbooked	Early labour	Known psychiatric history	Svd	Nil	Alive	Postpartum anaemia
Booked	Not stated	Not stated	Caesarean section	Cervical dystocia	Alive	None
Unbooked	Ppp eclampsia and sepsis 35/52wks	Not stated	Caesarean section	Previous caesarean section and ruptured uterus@35/52wks	Intrauterine fetal death	Wound sepsis
Unbooked	Pih	Pih	Caesarean section	Maternal pih	Alive	Pih
Booked	None	Not stated	Not stated	Not stated	Alive	Not stated

**ppp- postpartum psychosis; pih- pregnancy induced hypertension*

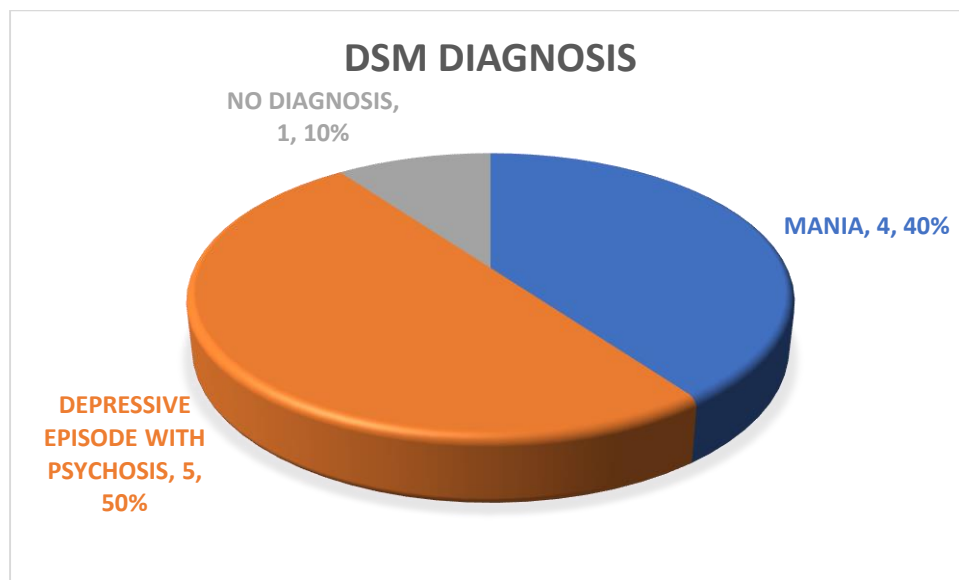


Figure 1: dsm diagnosis in referred postpartum cases

IV. Discussion

Demography of participants

The mean of age of the women diagnosed with postpartum psychosis (ppp) in this study was 31 years (23 – 36 years), a similar mean age was obtained in the south east of nigeria by ndukaba et al 2015⁸ who reported a mean age of 28 years in 76 women with a diagnosis of ppp in a stand-alone psychiatric facility. The vast majority of participants had at least secondary level of education which was similar in our study as well. The similarity in

age might be due to the similarity in educational status which implies enlightenment in accessing mental health care from specialized centers. The risk of developing ppp in the first 90 days was shown to be twice as high in women 35 years of age and older than in those 19 years or younger⁹. However, a study in northern nigeria had a lower mean age of women with a ppp diagnosis. Shehu and yunusa 2015¹⁰ in their retrospective study in northern nigeria found the mean age of participants was 20.6 ± 4 years among 29 postpartum psychotic patients at a tertiary facility. While this disparity exists, our study did not determine the age at onset of psychiatric symptoms in participants. This is attributed to the retrospective nature of our study and the limitations of this type of study. A key factor for this disparity could be due to early marriage practices that are predominant in northern nigeria, as compared to the south. Although khedr et al⁶ reported mean ages of 19 and 24 years respectively among the patients and control groups who had ppp, his result also correlated with our findings in that 40% of the women diagnosed were in their twenties.

Phenomenology of postpartum psychosis

The symptoms experienced by the women were classified into 3 categories, namely mania symptoms, depression symptoms and non-mood symptoms. All these symptoms were experienced by at least one of the women during this study, except for suicidality which was not present in the patients' behavioural pattern. In this study, mania symptoms such as irritable mood and talkativeness were the most frequent (75%) presentation in women who met the diagnostic criteria for mania. Irritability or irritable mood has been recognised as one of the early symptomatic conditions observed in women with postpartum psychosis¹. The prevalence of irritable mood in 75% of our study participants was the findings of kamperman et al 2017¹¹ who had previously reported 73% prevalence, although the talkativeness rate was 50% prevalent, which was lower than the 75% obtained in our study. Similarly, khedr et al⁶ recorded a 65.5% occurrence for irritable mood, which was also lower than the 75% obtained in this study. Other mania symptoms obtained in this study showed a prevalence of 50% and 25% for decreased need for sleep and expansive mood respectively. Comparatively, this result is identical to the 50% occurrence of decreased need for sleep, as called by kamperman et al 2017¹¹ in their study, however, he further reported 39% of their participants had expansive mood which was higher than the 25% reported therein. While our findings were similar to theirs despite our small sample size, due to the retrospective nature of our study, a lot of symptoms would not have been captured when compared to their prospective study. This highlights the need for us to commence a prospective study to capture the presenting symptoms of ppp in nigeria.

Depressive symptoms related to ppp could present with maternal suicide and even infanticide and thus require closely supervised care to promote both maternal and neonatal safety¹. In this study, depressive symptoms such as insomnia, psychomotor retardation and fatigue, were present in all participants who had depressive symptoms (in who a mde diagnosis was eventually made). None of the study participants presented with suicidality, unlike the 3% reported by kamperman et al 2017¹¹ in their study. While we had a very small sample size (considering how rare ppp is in our environment) which is not representative of women with ppp, suicidality is a symptom that carries a lot of cultural taboo and stigma and as such would not be volunteered and could have been missed. A prospective that deeply phenotypes ppp would be able to pick symptoms related to suicidality which could have been missed based on our retrospective study design. However, the presence of insomnia alongside other parameters such as work activities and suicidality had been used previously to screen women who had the tendency to experience recurrent depression while in the postpartum duration¹² and as such should be included in a structured screening instrument for ppp in our environment.

The non-mood symptoms as observed in this study included sleep disturbance (88.9%) as the most prevalent, while hallucination was least frequent with 11.1%. The prevalence of sleep disturbance in this study is higher than the 66% which was reported by khedr et al⁶. Sleep complaints were also the predominant presenting complaints in our participants. Sleep disturbances have been noted to precipitate mood episode onset and are also part of the phenomenology of mood episodes (ref). They should therefore be included in screening women for possible ppp. Similarly, disorganised behaviour in this study was found to be as high as 77.8%, while delusions and hallucinations had 44.4% and 11.1% respectively. Other studies¹³⁻¹⁵ have shown that aside from the fluctuations of mood, women with postpartum psychosis often experience disorganized behaviour, delusion and varying degrees of hallucinations. This highlights the heterogeneous nature of ppp in terms of its phenomenology and the difficulty of its classification in diagnostic criteria.

Using the dsm diagnostic criteria in our participants, we found that 50% of the women met the criteria of a major depressive episode (mde), 40% met the diagnostic criteria for mania and 10% did not meet a mood disorder diagnostic criteria. This result is in agreement with other studies in which the majority of the study participants (up to 74%) met the diagnostic criteria for a mood episode, though a study in a stand-alone psychiatric facility in nigeria found lower rates of mood episodes when compared to our study^{8,11,16}. While more participants met the criteria for an mde, other studies have shown that mania is the more prevalent mood episode. Khedr et. Al,¹⁶ found almost 4 times more manic episodes than depressive episodes and 13% of the participants had mixed mood episodes. This higher prevalence of manic episodes as compared to depressive episodes was also found by

bergink et.al.¹³ who reported 62% of the women had mania symptoms, 13% had depressive symptoms, and 7% had mixed episodes. A probable reason for the disparity of results obtained in these studies when compared to ours could be attributed to our small sample size, the retrospective nature of the study and because postpartum psychosis cases are seldom reported to the tertiary health care facilities in nigeria. Here the preferred pathway to care would be religious and traditional healers.

Obstetric outcome in participants

The booking status, antenatal admission and outpatient diagnosis helped the facility diagnose that only 10% of the women had previous history of recurrent acute psychotic episodes, while 30% were known psychiatric patients and 20% had other obstetric conditions which were not related to psychosis. The obstetric care reflected positively in the delivery of the participants, with 50% and 40% having undergone caeseraen section and spontaneous vaginal delivery respectively and 10% of the patients' mode of delivery was unknown. The fetal outcome showed 90% live births and 10% mortality which was due to intrauterine fetal death. Aside ppp, some of the participants also suffered some postpartum complications. 20% had postpartum anaemia, 10% had wound sepsis, 10% had pih, 10% had intrapartum haemorrhage/cancer, 10% was unknown, while 40% had no complications. All these complications were co-managed with the postpartum psychosis treatments. The women were treated for ppp with 100% having received haloperidol and only 8 participants received a daily dosage of 5mg. However, only 2 of the women had antidepressants as prescribed by the obstetrician. At discharge, maternal outcome showed that all the 10 (100%) women survived, 90% were discharged in stable conditions and only 1 (10%) woman was discharged in an unstable condition after opting to leave the facility.

V. Conclusion

Expectedly, postpartum psychosis remains a condition that is rarely reported in this part of the world, hence contributing to the limitations experienced in this study. Despite the heterogeneous presentations, diagnostic criteria of mood disorders were met by almost all participants. This adds credence to the theory of postpartum psychosis being a subtype of bipolar disorder. Considering the limitations in our study, this study builds the foundation for further investigating the phenomenology of postpartum psychosis using a prospective study design where every woman who presents at the obstetrics and gynaecology department of upth is screened for postpartum psychosis, and those who screen positive are deeply phenotyped. Irrespective of their clinical presentations, both the fetal and maternal outcomes were quite positive in this study. It is pertinent to state that most cases do not present to the tertiary facility due to the stigma attached to mental illnesses especially following childbirths, which is mostly given spiritual interpretations and hence such patients are managed traditionally.