



POSTPARTUM PSYCHOSIS RISK FACTOR AND MANAGEMENT; A PROSPECTIVE STUDY

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ABSTRACT

Background: Postpartum psychosis is an acute psychotic condition that develops in the first few weeks after childbirth; the incidence ranges between one and two per 1000 women.

Objective: The objective of this study is to investigate the risk factors associated with postpartum psychosis and to evaluate the efficacy of various therapy options in 100 individuals.

Study Design: A Prospective Study.

Duration and Place of the Study: Department of Psychiatry & Gynae & Obs department, Mardan Medical Complex (MMC), Mardan from January 5, 2020 to January 6, 2021.

Methods and Material: A total of 100 women who had given birth during the period under review were recruited for the study. By the hospital's protocols, the ethics committee sought and provided ethical approval, as well as informed permission from all participants. The selection criteria were women aged 18 to 45 years, who had been in the process of giving birth during the time of the study and who agreed to be followed up. Potential participants were excluded for meeting any of the following criteria a history of schizophrenia, current substance abuse, or any severe medical condition that would affect psychiatric assessment.

Results: The study included 100 patients. The majority of patients were between the ages of 25-34 years (60%), with an equal ratio of those under 25 years (20%) and over 35 years (20%). The socioeconomic position was mostly middle class (50%), with 30% coming from low and 20% from high socioeconomic backgrounds. The majority of participants were married (80%), with single and divorced/widowed persons accounting for 10% each. Significant risk factors identified included a personal history of bipolar disorder (46.7% in the postpartum psychosis group vs. 3.5% in no psychosis group, $p < 0.01$), family psychiatric history (53.3% vs. 25.9%, $p < 0.05$), preeclampsia (26.7% vs. 7.1%, $p < 0.05$)

Conclusion: It also identifies the common themes for postpartum psychosis such as past and family history of psychiatric disorders, and emphasizes pharmacological and psychotherapy interventions.

Keywords: Postpartum Psychosis, Risk Factors, Management Strategies.

INTRODUCTION

Postpartum psychosis is a severe and profound type of psychiatric disorder in women occurring in the first

two weeks of childbirth^[1]. It is said to be a psychiatric emergency due to the severity of the condition as it acutely manifests and due to the stringency of paraphilic behaviors such as infanticide and suicide risk linked to the ailment^[2]. Consequently, although postpartum psychosis is quite uncommon, it affects one to two deliveries out of a thousand, and has severe impacts on individuals and their families^[3]. Postpartum psychosis begins with certain symptoms such as acute mood disturbances and fluctuations, confusion, and gross psychoses as well as hallucinations and paranoid ideas^[4]. These symptoms may worsen at some point, and the worried parents should seek the assistance of a qualified medical practitioner to protect the mother and the baby^[5]. Postpartum psychosis is a rare but serious condition and rarely highlighted this may be attributed to the social stigma around women with mental disorders in the postpartum period and the knowledge deficit about this condition in the general population as well as among healthcare practitioners^[6]. It is important to be aware of the factors that may make a woman more susceptible to postpartum psychosis to increase the odds of early detection^[7]. Several factors have been named as potentially increasing a woman's vulnerability to Puerperal psychosis including prior manic depressive psychosis or previous affective psychosis, previous affective illness in close relatives, and severe life events linked to the onset of the disease such as a traumatic childbirth experience or social isolation. It is also found that genetics and hormonal fluctuations after childbirth can also be a primary cause of postpartum psychosis. Postpartum psychosis can be treated with medications this is in combination with therapy and support from families as well as friends^[8]. The mother also usually needs to be urgently admitted for her condition to be addressed and to prevent complications for her and the baby^[9]. The typical medications used as anti-psychotics, mood stabilizers, and in certain situations, antidepressants are the fundamental medicines that are used in pharmacological management. While there is no definitive cure for the disorder, an emerging interventional strategy is psychotherapy, particularly cognitive-behavioral therapy (CBT), which can be used to combat the cognitive dysfunction and the emotional disturbance that are manifested by the disorder. Also, it is important to get family, friends, and other professionals who can be good supports for the mother after the time of childbirth has passed and she is trying to get better. The objective of this study is to explore the risk factors that may be associated with postpartum psychosis and assess the intervention strategies that may be available and useful in the management of the symptoms.

Methods and Material

A total of 100 women who had given birth during the period under review were recruited for the study. By the hospital's protocols, the ethics committee sought and provided ethical approval, as well as informed permission from all participants. The selection criteria were women aged 18 to 45 years, who had been in the process of giving birth during the time of the study and who agreed to be followed up. Potential participants were excluded for meeting any of the following criteria, a history of schizophrenia, current substance abuse, or any severe medical condition that would affect psychiatric assessment. The Edinburgh Postnatal Depression Scale (EPDS) is a tool that is used to assess both postpartum depression and psychotic symptoms. Postpartum psychosis assessment is carried out using a clinical interview by a qualified psychiatrist, according to DSM-5 classification. Medical records were examined for obstetric issues and previous psychiatric disorders. To evaluate the risk factors, the following criteria were used to assess the participants. Self-reported previous mental health diagnoses, such as bipolar disorder, depression, and anxiety. Psychiatric Assessment Past or present psychiatric disorders Self-report and/or confirm the diagnosis of any psychiatric conditions among first-degree relatives. Pregnancy and childbirth complications: preeclampsia, preterm birth, and mode of delivery. Age, education level, marital status, and social support. Psychosocial Interventions Participants diagnosed with postpartum psychosis were given individualized care plans, and treatments provided were: Pharmacological Treatment In addition to antipsychotics, mood stabilizers were administered depending on the patient's severity and history. Psychotherapy Cognitive behavioral therapy (CBT) and supportive psychotherapy were provided. Family Counseling, Support Groups, and Community Resources – This section looks at social support interventions, including family counseling, support groups, and community resources that can be used in treating SAD. The postoperative assessment of patients was done monthly for six months postpartum. Outcome measures comprised Symptom Severity whereby the participants completed the EPDS and were clinically interviewed. Medication compliance and complications were assessed by patients' questionnaires and clinician records. Relapse Rates are Defined as the number of episodes of psychotic symptoms that necessitate the patient to be re-hospitalized or receive additional medication. This is measured through the patient's functional recovery, which involves performing daily tasks and taking care of an infant.

Data Analysis

The collected data were analyzed with the help of statistical software called SPSS version 20. Data describing demographic and clinical characteristics were analyzed using descriptive statistics. Cross-tabulations and chi-square tests were used to determine the association between postpartum psychosis and various factors at $p < 0.05$ level of significance.

Results

The study included 100 patients. The majority of patients were between the ages of 25-34 years (60%), with an equal ratio of those under 25 years (20%) and over 35 years (20%). The socioeconomic position was mostly middle class (50%), with 30% coming from low and 20% from high socioeconomic backgrounds. The majority of participants were married (80%), with single and divorced/widowed persons accounting for 10% each. Personal psychiatric history included 10% bipolar disease, 20% depression, 15% anxiety, and 55% no previous psychiatric history. A family history of mental problems was found in 30% of the individuals (Table 1). The most prevalent problems were cesarean sections (25%) and preterm deliveries (15%), followed by gestational diabetes (12%), preeclampsia (10%), and postpartum hemorrhage (8%). Notably, 40% of patients had no obstetric problems as seen in Table 2. Significant risk factors identified included a personal history of bipolar disorder (46.7% in postpartum psychosis group vs. 3.5% in no psychosis group, $p < 0.01$), family psychiatric history (53.3% vs. 25.9%, $p < 0.05$), preeclampsia (26.7% vs. 7.1%, $p < 0.05$), low socioeconomic status (53.3% vs. 25.9%, $p < 0.05$), and lack of social support (66.7% vs. 17.6%, $p < 0.01$) shown in Table 3. Table 4: Present Various therapy techniques were tested for their efficacy in improving symptoms and reducing recurrence rates in postpartum psychosis patients. 5 patients had pharmacological therapy alone, with a 60% symptom improvement and a 40% recurrence rate. Two patients had psychotherapy alone, which resulted in a 50% symptom improvement rate and a 50% return rate. The combination of pharmaceutical treatment and psychotherapy was the most beneficial, with 87.5% of patients seeing symptom improvement and a 12.5% recurrence rate. Functional recovery and treatment adherence differed between management techniques, as indicated in Table 5. Among those who had just pharmaceutical therapy, 40% obtained complete functional recovery, another 40% had partial recovery, and 20% exhibited no recovery, with 60% adhering to treatment. One patient who had psychotherapy alone recovered completely (50%) and one did not recover at all (50%), with an adherence rate of 50%. The combined treatment method led to the greatest functional recovery, with 87.5% reaching complete recovery, 12.5% obtaining partial recovery, and 100% adherence to therapy.

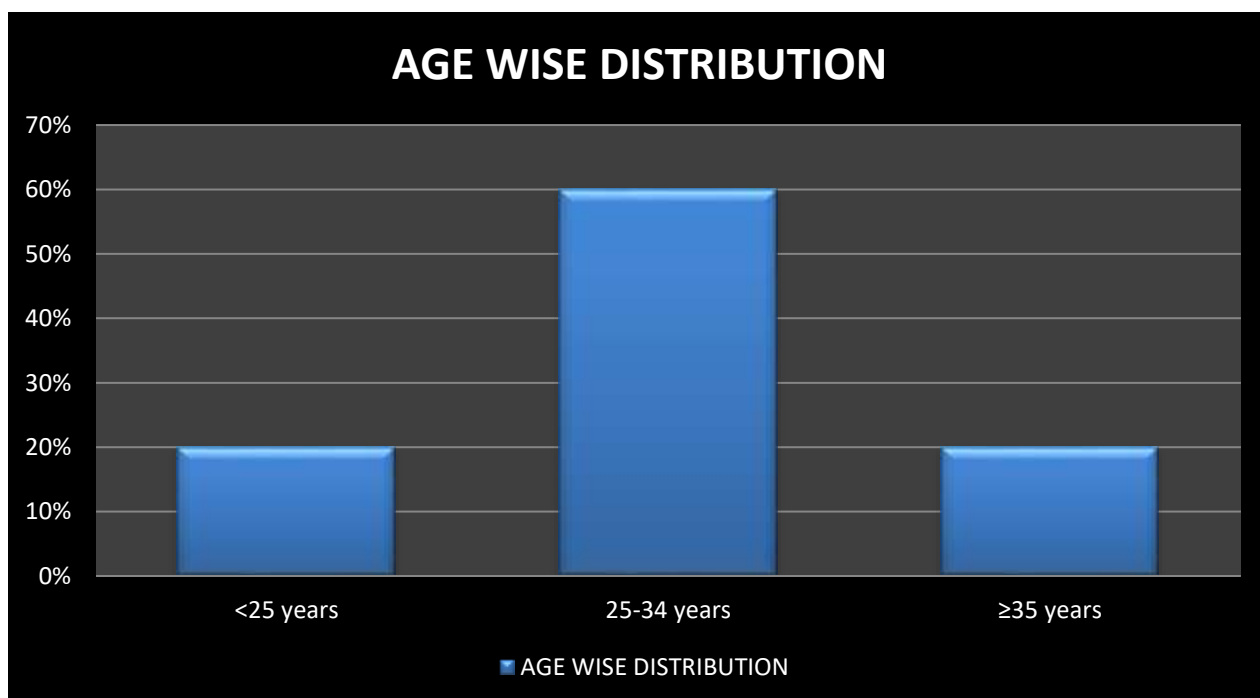


Figure 01: Demography age-wise

Table 1: Study Participants' Clinical and Demographic Features

Characteristics	Number of Patients (n=100)	Percentage (%)
Age (years)		
<25 years	20	(20%)
25-34 years	60	(60%)
≥35 years	20	(20%)
Socioeconomic Status		
Low	30	(30%)
Middle	50	(50%)
High	20	(20%)
Marital Status		
Married	80	(80%)
Single	10	(10%)
Divorced/Widowed	10	(10%)
Personal Psychiatric History		
Bipolar Disorder	10	(10%)
Depression	20	(20%)
Anxiety	15	(15%)
No history	55	(55%)
Family Psychiatric History		
Yes	30	(30%)
No	70	(70%)

Table 2: Obstetric Complications Among Study Participants

Complication	Number of Patients (n=100)	Percentage (%)
Preeclampsia	10	(10%)
Preterm Birth	15	(15%)
Cesarean Section	25	(25%)
Postpartum Hemorrhage	8	(8%)
Gestational Diabetes	12	(12%)
No Complications	40	(40%)

Table 3: Prevalence of Postpartum Psychosis and Associated Risk Factors

Risk Factor	Postpartum Psychosis (N=15)	No Postpartum Psychosis (N=85)	p-value
Personal History of Bipolar Disorder	7 (46.7%)	3 (3.5%)	<0.01
Family Psychiatric History	8 (53.3%)	22 (25.9%)	<0.05
Preeclampsia	4 (26.7%)	6 (7.1%)	<0.05
Low Socioeconomic Status	8 (53.3%)	22 (25.9%)	<0.05
Lack of Social Support	10 (66.7%)	15 (17.6%)	<0.01

Table 4: Management Strategies and Their Effectiveness

Management Strategy	Number of Patients (N=15)	Symptom Improvement (N, %)	Relapse Rate (N, %)
Pharmacological Treatment Alone	5	3 (60%)	2 (40%)
Psychotherapy Alone	2	1 (50%)	1 (50%)
Combined Pharmacological and Psychotherapy	8	7 (87.5%)	1 (12.5%)

Table 5: Functional Recovery and Treatment Adherence

Outcome Measure	Pharmacological Treatment Alone (N=5)	Psychotherapy Alone (N=2)	Combined Treatment (N=8)
Full Functional Recovery	2 (40%)	1 (50%)	7 (87.5%)
Partial Functional Recovery	2 (40%)	0 (0%)	1 (12.5%)
No Functional Recovery	1 (20%)	1 (50%)	0 (0%)
Treatment Adherence	3 (60%)	1 (50%)	8 (100%)

Discussion

In this way, the results of this study enrich the knowledge about postpartum psychosis risk factors and the ways of managing this severe condition, supporting and extending the outcomes of previous research on this topic.

The demographic data in this study reveal that 83% of the participants are within the age group of 25 to 34 years, which is within the average age of childbearing. These findings regarding psychiatric history are consistent with earlier studies showing that women with a personal/family history of psychiatric disorders are at an increased risk of developing postpartum psychosis ^[10]. The observed 30% prevalence of family psychiatric history in this study further supports the genetic susceptibility to these disorders as has been reported in previous research (Mehta et al., 2014) ^[11]. Overall, there were various obstetric complications of which cesarean sections and preterm deliveries were the most prevalent with 25% and 15% respectively. These findings are in a similar vein to the literature suggesting that pregnancy complications like preeclampsia which was recorded in 10% of the participants in this study, predisposes women to postpartum psychosis (Kendell et al., 1987) ^[12]. The fact that 40% of the participants had no complications proves that although obstetric challenges affect postpartum psychosis, it has other causes, emphasizing the multifactorial model. The various risk factors that have been noted to be of most importance including prior personal history of bipolar disorder, family history of psychiatric illnesses, preeclampsia, low socioeconomic status, and lack of social support are also consistent with those reported in other studies. For example, a strong link between bipolar disorder and postpartum psychosis was found, with the psychosis group having 46.7% of the patients in contrast to the 3.5% in the non-psychosis group, $p < 0.01$ (Kisely et al., 2009) ^[13]. In the same way, there is sufficient support from previous research on how socioeconomic status and social support influenced improved mental health outcomes postpartum (Melchior, et al., 2020) ^[14]. The observation of factors that distinguished participants with a history of preeclampsia as a significant risk factor (26.7% vs. 7.1%, $p < 0.05$) is also consistent with the literature on physiological stress and hormonal changes associated with hypertensive disorders during pregnancy as potential triggers (Munk-Olsen, et al., 2017) ^[15]. The findings that show the highest rate of symptom improvement (87.5%) and the lowest relapse rate (12.5%) in the combined treatment group also support the idea of using a pluralistic approach, as has been noted in other studies (Bergink et al., 2015) ^[16]. The low effectiveness of the pharmacological treatment alone allowing patients to improve their condition only by 60% and the psychotherapy alone allowing patients to reduce their symptoms by 50% indicates that while both methods help, they are most effective when combined. This finding is in concordance with evidence proposing the multi-modal approach where the patient receives both pharmacological and psychotherapy as well as social support (Sharma & Mazmanian, 2003) ^[17]. The functional improvement rate in the combined treatment group was 87.5%, and the complete compliance rate was 100%; These findings highlight the importance of integrated and sustained care during the postpartum periods for women with psychosis. These outcomes are much better compared to the pharmacological treatment-only group where the subjects had 40% full recovery and 60% adherence to the treatment; and the psychotherapy-only group where all subjects had a full recovery and 50% adherence. Therefore it can be postulated that the provision of continued support and follow-up, in conjunction with medical and therapeutic management, can lead to significantly improved patient outcomes, in line with the integrated care pathways proposed in mental health treatment protocols (Fulceri et al., 2023) ^[18]. Our study further confirms that postpartum psychosis has many causes and that a holistic approach should be adopted in its treatment. Further research should be done to understand the effectiveness of developing specific self-interventions and the implementation of mental health care in maternal services to effectively address the needs of women and their families.

Study Limitations

Some of the study's limitations include enrollment of a small number of patients, single-center design, data collection based only on self-administered questionnaires, short follow-up time, differences in treatment protocols across the groups, absence of a control group, and the possibility of residual confounding.

Conclusion

It also identifies the common themes for postpartum psychosis such as past and family history of psychiatric disorders, and emphasizes pharmacological and psychotherapy interventions. To evaluate the efficiency of such an approach, a large-scale, randomized, multicenter study is required to compare the effectiveness of various treatment options.

Conflict of Interest: Nil

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Authors Contribution

Fatima: Concept & Design of Study

Sabir Zaman, Hamsa Gul: Drafting

Muhammad Muslim Khan, Izaz Jamal:Data Analysis

Ejaz Gul: Critical review

Muhammad Muslim Khan: Final Approval of version

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