

ORIGINAL RESEARCH

A hospital based cross-sectional study of socio-demographic profile, obstetric profile and medical co-morbidities among patients of post-partum psychosis

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ABSTRACT

Background: Knowledge of socio-demographic profile and obstetric features and medical co-morbidities may help in early identification and treatment of patients with post-partum psychosis. The aim of this paper is to study the, socio-demographic profile, parity and obstetric, menstrual profile and medical co-morbidities of patients suffering from post-partum psychosis. A cross-sectional study at in-patient department of psychiatry, A.B.V. Medical College Vidisha was conducted. **Methods:** The study was conducted on fifty-one patients of post-partum psychosis admitted in psychiatry ward. Detailed socio-demographic characteristics, medical co morbidity, obstetric and menstrual profile along with psychiatric assessment were recorded in proforma specially designed for the study. **Results:** Bulk of our post-partum psychotic subjects (56.86%) were in the age range of 26-35 years with 78.43% of women were residing at rural areas. Most of subjects (33.33%) of post partum psychosis were educated up to middle school. 72.54% patients were belonging to lower socio-economic status and remaining to middle and high socioeconomic status. Majority of subjects (74.50%) were housewife. Family jointness reveals 72.54% and 27.45% of subjects trailed from joint and nuclear family, respectively. the maximum number of subjects (64.70%) were primipara with only 13.72% of subjects had history of obstetric complication in form of prolonged labour and post-partum heamorrhage. 41.17% subjects had cesarean delivery. 37.25% patients of puerperal psychosis were having menstrual irregularity and 62.74% had regular menstruation. In this study anemia (54.90%) was found most common medical co-morbidity followed by post partum infection (35.29%). **Conclusions:** Screening for psychiatric signs and symptoms during the postpartum period is necessary for early diagnosis and timely and appropriate care of sensitive groups, such as young age, primipara, and history of anemia, postpartum infection, and irregular menstruation. Since the majority of the patients came from rural areas, it is essential to create mental health facilities there as well, enabling this population to receive comprehensive care in addition to the medical services that are currently available.

Keywords: Obstetric, medical co-morbidities, Socio-demographic, post-partum psychosis

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INTRODUCTION

Numerous mental diseases are linked to an elevated risk during the perinatal period(1). Many vulnerable women may encounter a wide range of mental health issues during this time, such as depression, anxiety, and psychosis(2,3). A significant life change and

developmental process, childbirth offers numerous challenges to the mother, including trauma, sleep deprivation, breastfeeding, and relationship adjustment. Women experience a variety of psychological issues during the postpartum phase. Among these are "the blues," which manifest on the

first day following delivery and are rather common, occurring in 50% to 75% of cases, and self-limiting. Postpartum psychosis is a serious mental disease that affects around 0.1% of people(4,5). It is an episodic mental illness wherein symptoms occur as early as the first 48 to 72 hours postpartum and up to the first 6 weeks after delivery. A medical emergency, postpartum psychosis carries a danger of suicide and infanticide(6,7). The functioning of families, parent-child relationships, and the avoidance of several short- and long-term consequences all depend on the early detection and treatment of mental disorders(8). A solid understanding of sickness is necessary for quicker detection. Consequently, the findings of this study will contribute to our understanding of the many risk variables linked to postpartum psychosis and will aid in the identification of potential etiological factors.

METHODOLOGY

The present study was conducted in the Dept of Psychiatry and Dept. of Obstetrics and Gynecology, government medical college, Vidisha (M.P); it was a hospital-based, cross-sectional study, carried out over 6 months. Purposive sampling was used. After consulting with the Obstetrics and Gynecology department, all patients exhibiting aberrant behaviour after giving birth were assessed using the ICD-10 DCR(International classification of disease-10th edition diagnostic criteria for research). This study included women who were 18 to 40 years old, had a full-term pregnancy or a full-term caesarean section, and had experienced their first episode of postpartum psychosis within six weeks after giving birth. To eliminate potential confounding factors, women who experienced abnormal behaviour within three days of birth, had a severe physical sickness, or had an overt

neurological problem such as meningitis, encephalitis, seizure disorder, etc. were eliminated. Total 65 patients were screened with behavioral problem but 14 patients were excluded due to organicity or who required ICU cares and thus making a sample of 51 patients. Vital signs of the patient were taken, and a range of laboratory tests were carried out, such as lipid profile, routine microscopy, serum uric acid, thyroid profile, RBS, LFT, and RFT.

RESULTS

This study contained 51 cases of postpartum psychosis that satisfied the inclusion criteria. In addition to the patients' obstetric and menstrual profile, which included menstrual history, type of delivery, parity, and obstetric difficulties, the study focused on the patients' age, sex, socioeconomic status, occupation, domicile, family type, and education.

Most of our post partum psychotic subjects 29 (56.86%) were in the age range of 26-35 years followed by 18(35.29%) belongs to 15-25 years of age and 4(7.84%) belongs to 35-40 years of age. Bulk of 37(72.54%) patient of puerperal psychosis were belonging to lower socio-economic status and remaining stay between upper lower to upper middle class of socioeconomic status. Majority of subject of post partum psychosis were house wife 38(74.50%) followed by laborer class 8 (15.68%) and working 5(9.80%). Most of 40(78.43%) women were residing at rural area and rest of them belongs to urban areas 11(21.56%). Family jointness reveal 37 (72.54%) and 14(27.45%) of subjects trailed from joint and nuclear family respectively. Most of subjects of post partum psychosis were educated up to middle school 17(33.33%) followed by primary school 13(25.49%).

Table No 1. Distribution of study subject according to sociodemographic profile

Age (years)	Number n (51)	Percentage (%)
18-25	18	35.29
26-35	29	56.86
>35	4	7.84
Socioeconomic status (Kuppuswamy Socioeconomic Scale 2020) [3]		
Upper class	0	0
Upper Middle	5	9.80
Lower middle	3	5.88
Upper Lower	6	11.76
Lower	37	72.54
Occupation		
Housewife	38	74.50
Laborer	8	15.68
Working	5	9.80
Domicile		
Rural	40	78.43
Urban	11	21.56
Total	51	100
Family type		
Joint	37	72.54
Nuclear	14	27.45

Education		
Illiterate	7	13.72
Primary	13	25.49
Middle	17	33.33
High School	8	15.68
Higher secondary	4	7.84
Graduate/Postgraduate	2	3.9

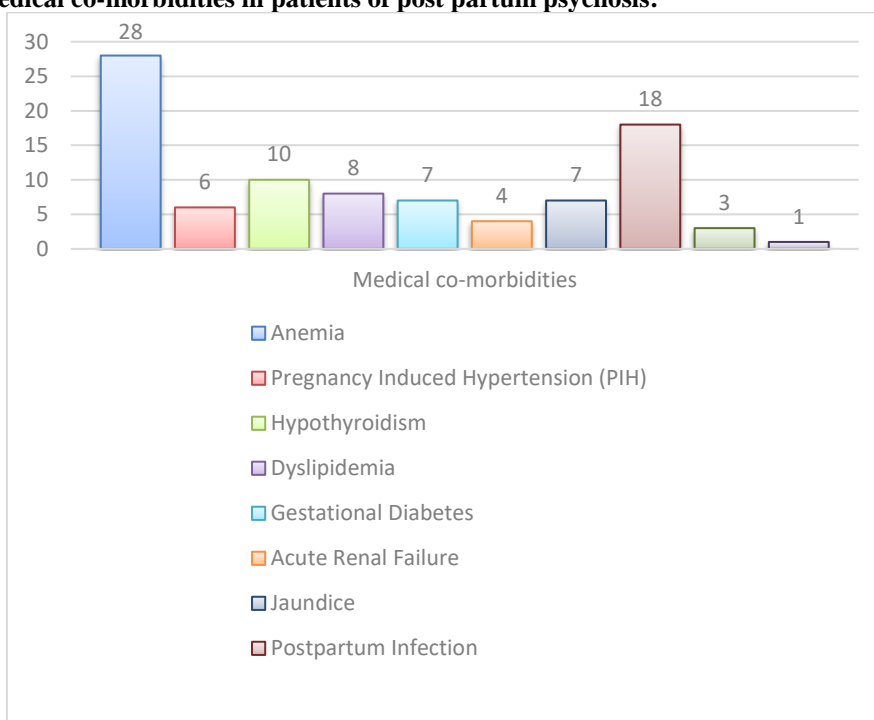
Table No. 2 Menstrual and Obstetric characteristics in women with postpartum psychosis (n = 51).

Obstetric and fetal outcome	Number (N=51)	Percentage (%)
Parity		
Primipara	33	64.70
Multiparous	18	35.29
Mode Of Delivery		
Normal Vaginal	30	58.82
Caesarean - Section	21	41.17
Instrumental	00	00
Obstetric complications		
Prolonged labour	4	7.84
Postpartum hemorrhage	3	5.88
Fetal Complication		
YES	8	15.68
NO	43	84.31
Menstruation		
Regular menstruation	32	62.74
Irregular menstruation	19	37.25

Table 2 depicts the menstrual and obstetric history of women presented with the symptoms of post partum psychosis. In terms of parity, 33(64.70%) patients were Primipara and rest was multiparous 18(35.29%). Most of the patients 30(58.82%) were delivered through normal vaginal delivery and 21(41.17%) through cesarean section. Postpartum hemorrhage and

prolonged labour were reported in 5.88% and 7.84% of the cases respectively. In present study 43(84.31%) subjects had healthy baby at birth while 8(15.68%) were had unhealthy baby. According to the menstrual history 32(62.74%) of participants claimed normal menstruation, whereas 19(37.25%) of patients reported irregular menstruation.

Chart No.1 Medical co-morbidities in patients of post partum psychosis:



In the present study anemia 28(54.90%) was most common medical co-morbidity followed by postpartum infection 18(35.29%), hypothyroidism 10(19.60%), Dyslipidemia 8(15.68%), jaundice in 7(13.72%), Gestational Diabetes 7(13.72%), acute renal failure 4(7.84%) and Asthma 3(5.88%) patients, while least common was HIV 1(1.96%).

DISCUSSION

The goal of the current study was to look at a variety of sociodemographic, obstetric, and menstrual factors, as well as medical co-morbidities, in patients who had postpartum psychosis.

SOCIODEMOGRAPHIC PROFILE

The current study indicates that most incidences of postpartum psychosis occur in young people. The majority of our individuals were in the 25–35 age range. Furthermore, individuals between the ages of 25 and 35 were more likely to develop psychosis (56.86%) than patients over the age of 35 (7%). This outcome is consistent with previous studies findings(9–11). There are several biological and psychological factors that can lead to an early start of postpartum psychosis. However, there's a potential that the young demographic is more predisposition to acute psychosis may be another risk.

The bulk of our sample (72.54%) came from lower class backgrounds. One study suggests that living in a low-income neighborhood may contribute to the development of postpartum psychosis(12).

A patient's long-term maladjustment, an unstable home environment, inadequate communication, poor nutrition or any combination of these clinical variables may contribute to the higher incidence of post-partum psychosis in low socioeconomic class individuals.

Among the patients, housewives made up 74.50%. Psychotic preference for any particular professional category was not apparent. 21.56% of the subjects were from urban areas, whereas 78.43% of the subjects were from rural areas. This outcome was consistent with previous studies(13,14).

The working habits, lack of communication, intrafamilial disputes, and familial infrastructure in rural India may be more of a contributing element in rural backgrounds for postpartum psychosis. The majority of the subjects shared a combined family. An elevated risk of postpartum depression was discovered by one author in joint families that reside in rural areas(15).

One study claims that culturally conditioned behavior in non-nuclear families has a detrimental effect on maternal health by compelling women to perform household chores against the medically advised minimum rest(16). Therefore, having a joint family and coming from a rural background may make one more susceptible to post-partum psychosis.

33.33% of subjects were educated up to middle school. In one of study most of the patients with post partum psychosis had no formal education(10).

PARITY

The majority of patients were primipara (64.70%). current study reveals that postpartum psychosis is more common in primipara and this finding also gets support from previous studies(15,17).

OBSTETRIC COMPLICATIONS

13.72% of the participants in our study experienced prolonged labor and postpartum hemorrhage. Fatoye FO found obstetric complications in 22.4% subjects(18). According to Nager A's research, obstetric factors are not very significant. 39.5% of 167 deliveries involving postpartum psychosis had delivery problems, according to a study by Blackmore ER et al.(19) Study conducted by Mc Neil TF did not support association between obstetric complication and postpartum psychosis(20).

TYPE OF DELIVERY

In the current study, full-term normal birth (58.82%) was shown to have considerably higher rates of postpartum psychosis than cesarean delivery (41.17%). Therefore, it does not appear that having a cesarean delivery increases the likelihood of developing postpartum psychosis. Our results are consistent with previous studies conclusions(8,19,21).

MENSTRUATION

The majority of individuals (62.74%) reported regular menstruation, while 37.25 percent reported a history of irregular menstruation. Menstrual cycle regularity and length have significant associations with specific current and life time psychiatric disorders(22).

Lack of rebound biochemical changes during pregnancy may have contributed to the development of post-partum psychosis, and patients with post-partum psychosis have been found to have a higher incidence of irregular menstrual cycles. Another theory is that the combination of psychological and hormonal factors near the end of pregnancy makes it an especially stressful time that can lead to psychosis(23).

MEDICAL CO MORBIDITY

In the present study anemia (54.90%) was found the most common medical co morbidity with post partum psychosis followed by puerperal sepsis (35.29%), hypothyroidism (19.60%), Dyslipidemia (15.68%), jaundice (13.72%), gestational diabetes (13.72%), acute renal failure (7.84%), asthma (5.88%) while least common was HIV(1.96%).

In several studies it was found that anemia during pregnancy significantly increased the risk of post partum depression.(24) Thyroid dysfunction, as seen

by an isolated rise in FT4 and volumetric alterations in the thyroid lobe, may be more precisely linked to postpartum psychosis, according to one study. (25)

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