



Postpartum psychiatric illness

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OBJECTIVE(S): To evaluate the prevalence of postpartum psychiatric morbidity and to identify the risk factors associated with this problem.

METHOD(S): An epidemiological study was conducted on 478 new mothers between July and September 2002. General Health Questionnaire and Edinburgh Depression scale were used on day 3 and 3 weeks postpartum to identify women with psychiatric morbidity. Demographic, obstetric, and psycho-social risk factors were analyzed. Chi-square test was used for statistical analysis.

RESULTS: The prevalence of postpartum psychiatric morbidity was 33.4% and 6.5% of cases had major illness with postnatal depression and psychosis. Parity, marital status, habits of spouse, previous obstetric complications, current perinatal events, mode of delivery, and sex of the baby did not have major impact on the occurrence of postpartum depressive disorder. Women whose husbands were unskilled workers suffered more (8.2%) compared to those with skilled worker husbands (2.2%). The prevalence was high in women in nuclear families (9.4%) as compared to that in those in joint families (1.2%). The incidence was very high among women who had non-arranged marriages (17.7%).

CONCLUSION(S) : Pregnant women should be screened to identify those at risk for psychiatric illness. Necessary prevention and treatment should be offered.

Key words : postpartum psychiatric morbidity, postpartum depression, psychosis, risk factors

Introduction

In most instances pregnancy and childbirth evoke joy and anticipation, but in a few women it could be a stressful event, occasionally severe enough to provoke mental illness such as postpartum blues, postnatal depression and postpartum psychosis¹. Postpartum blue presents with self limited mild depressive symptoms such as mood lability, anxiety, insomnia and tearfulness during the first week after delivery and resolves spontaneously. Postnatal depression is a common medical problem and is reported in 8 to 15% of women after delivery. It has an insidious onset within first 2 to 3 months after delivery, depressive symptoms are stronger,

and suicidal ideation and functional dysfunctions are often seen. The problem of postnatal depression not only has immediate adverse effect on the mother, her newborn child and the family, but can also lead on to long-term morbidity, as the condition can persist or may present with recurrent episodes of depression later on. Puerperal psychosis is a severe form of psychiatric illness seen within 2 to 4 weeks after delivery. Its presentation is often dramatic. It usually presents with depressed mood, delusion, hallucination and disorganized behavior. This study was undertaken to evaluate the prevalence of postpartum psychiatric morbidity in our population, and to identify the demographic, obstetric, social and psychosocial risk factors associated with postpartum depression and postpartum psychosis.

Methods

This epidemiological study was conducted on 478 new mothers who delivered between July and September 2002. Critically ill patients were excluded from this study. Two assessments were made where the new mother and her

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nearest relatives were personally interviewed using structured questionnaires.

The first interview was conducted within 72 hours of delivery where two questionnaires were used. Questionnaire I included general variables such as socio-demographic characteristics, perinatal events, medical and family history with special attention focused on the type of marriage, type of family (nuclear / joint), availability of social support, relationship with spouse and in-laws, whether current pregnancy was planned or not, and whether a particular gender of infant was favored. Attention was also focused on past history and family history of psychiatric illness.

Questionnaire II was a General Health Questionnaire with 12 points which is a screening questionnaire designed for use in general population surveys to assess psychological health². A score of more than three was considered positive, and in these women the quality or the nature of psychiatric illness was assessed by Hamilton Depression rating scale¹. Hamilton Rating Scale for Depression (HAM-D) uses 17 items and the score ranges from 0 to 50. Score of 7 or less is considered normal while 8 to 13 mild depression, 14 to 18 moderate depression, 19 to 22 severe depression, and 23 and above very severe depression.

The second interview was carried out at 3 to 4 weeks after delivery and Edinburgh postnatal depression scale was used to detect postnatal depression³. A cut-off score of 12/13 was considered positive.

Chi-square test was used for statistical analysis to assess the significance of various risk factors in predicting postpartum depression.

Results and Discussion

The prevalence of postpartum psychiatric morbidity in this study was 33.48% (160/478). 26.99% of mothers suffered from postpartum blues (HAM-D Score 8 to 13). 5.86% had post-partum psychosis (HAM-D Score 14 to 18). In these women using Edinburgh Depression Scale at the second interview a diagnosis of postnatal depression was made in 5.9% of cases and postpartum psychosis in 0.63% (Table 1). Since postpartum blue is a transient mood variation and most of the patients revert to normal further discussion will be focused on major psychiatric illness, postpartum depression and psychosis, which constitute 6.49% of all cases. The prevalence of 5.86% of postpartum depression in our study was similar to that reported by Nielsen et al⁴. However this is much lower than the general prevalence of 8 to 15 %, mentioned by Nieson et al⁴, probably due to the adequate social support our women receive as most Tamilian

women still live in joint families. Our study shows an incidence of puerperal psychosis (0.63%) which is higher than 0.1 to 0.2% quoted by Nonacs and Lee¹. This may probably be due to the referrals, our institute being a tertiary referral unit.

Table 1. Prevalence of postpartum blues, depression and psychosis.

| | No. | % |
|-----------------------|-----|-------|
| Postpartum blue | 129 | 26.99 |
| Postpartum depression | 28 | 5.86 |
| Postpartum psychosis | 3 | 0.63 |
| Total | 160 | 33.48 |

Analyzing the psychiatric problems in relation to the age of the patient showed that between the ages of 15 and 25 years, 5.6% developed psychiatric problems, whereas between the ages of 26 and above 9.3% developed the problems but this difference was not statistically significant. Parity analysis showed that 6% of Para I, 7% of Para II, 5.7% of Para III and 7.4% of Para IV suffered from postnatal depression, indicating that parity had no influence. However, Nielsen et al⁴ showed that high parity was associated with three fold increased risk of postpartum depression.

The prevalence of psychiatric illness was 7.3% among Hindus, 3.2% among Christians and 3.3% among Muslims. In this study, 84% of the mothers had their education up to or below 10th standard. The incidence of psychiatric problems was 6% in those who have studied up to 10th standard, and 5.3% in those who have studied beyond 10th standard, the difference is not significant.

4.9% (23/478) of the mothers were unmarried. 6.5% of married women developed psychiatric illness and in contrast to none in the unmarried group. 70.5% (337/478) of women had arranged marriages and 29.5% (141/478) had love marriages. Interestingly it was seen that 1.8% of women who had arranged marriages developed psychiatric illness as against 17.7% of those who had love marriages. This difference is statistically significant (P =0.0001). Type of family was also an important risk factor for the occurrence of psychiatric illness. Majority of women (64.4%) were in nuclear family and 9.4% of them developed psychiatric illness as against 1.2% of women in joint families (p=0.0005). Extended family members provide support and guidance to a woman who is taking a new role as a mother. This is slowly fading away and as a result, social isolation due to love marriages resulting in nuclear families has emerged as risk factor for the occurrence of postpartum depression (Table 2). Nielsen et al⁴ also showed social isolation as a strong risk factor associated with postpartum depression.

On analyzing the socio-economic status and occupation of the spouse, the incidence of psychiatric illness was 8.2% among women whose spouses were unskilled workers, whereas it was 2.2% in those whose spouses were skilled workers ($P=0.0167$). Habits such as alcoholism, smoking and tobacco chewing were seen in 59.2% of spouses (283/478) but the incidence of psychiatric illness was not affected by this (Table 2).

A history of previous psychiatric illness was present in four women (0.83%) and two of them (50%) developed psychiatric morbidity in the postpartum period, whereas only 6.1% with no such previous history developed psychiatric illness ($P=0.0004$). On analyzing the family history, problems such as mental illness and alcoholic habits in fathers and brothers were seen in 18.8% (90/478) of cases. The incidence of psychiatric morbidity was 21% among women whose family members were alcoholics or had mental illness and was 4.6% in those with negative family history ($P=0.0007$). (Table 2). Other reports have also shown past episodes of depression and a family history of mood disorders as predictors of postpartum depression ⁵.

In our study only 38.3% had regular antenatal check ups while 61.7% were unbooked. The incidence of psychiatric illness was 3.8% and 8.1% among the booked and unbooked cases respectively. This difference was not statistically significant. Previous poor obstetric outcome such as abortions, pre-term births, stillbirths and neonatal deaths was seen in 21.9% (105/478) of women. But it did not affect the prevalence of psychiatric illness significantly.

71.9% had spontaneous vaginal delivery, 2.7% were delivered by forceps and 25.4% by cesarean section. The prevalence of psychiatric morbidity in these women was 7%, 7.7%, and 5 % respectively. Their mode of delivery did not influence the occurrence of postpartum psychiatric disorders significantly. Similarly, various antenatal and postnatal obstetric complications also did not influence the occurrence of psychiatric disorders. 50.4% of women delivered male babies and 49.6% delivered female babies and the incidence of postpartum psychiatric morbidity was not significantly different in them (Table 2). 94.1% (450/478) had live births while 5.9% had delivered either dead born babies or had neonatal deaths. This did not influence the psychiatric morbidity significantly. Our results are similar to those of Nielsen et al's ⁴ study whereby, multivariate analysis, no obstetric risk factors or perinatal events could be identified to have association with postpartum depression. However, Hansal and Anjali ⁶ showed that antenatal complications, operative interventions, intranatal and postnatal complications and

Table 2. Association between demographic, social, psychosocial, and obstetric factors, and postpartum depression.

| Variables | Depressed (Percent) | Nondepressed (Percent) | P-value |
|----------------------------------|---------------------|------------------------|-------------|
| Education | | | |
| Upto or below 10th standard | 6 | 94 | NS |
| Beyond 10th standard | 5.3 | 94.7 | |
| Marital status | | | |
| Unmarried | 0 | 100 | NS |
| Married | 6.5 | 93.5 | |
| Type of marriage | | | |
| Arranged marriage | 1.8 | 98.2 | 0.0001 |
| Love marriage | 17.7 | 82.3 | Significant |
| Type of family | | | |
| Nuclear | 9.4 | 90.6 | 0.0005 |
| Joint | 1.2 | 98.8 | Significant |
| Occupation of spouse | | | |
| Unskilled | 8.2 | 91.8 | 0.0167 |
| Skilled | 2.2 | 97.8 | Significant |
| Habits of spouse | | | |
| Normal | 6.7 | 93.3 | NS |
| Alcoholism | 6.3 | 93.7 | |
| AN booking | | | |
| Booked | 3.8 | 96.2 | NS |
| Unbooked | 8.1 | 91.9 | |
| Past psychiatric illness | | | |
| Yes | 50 | 50 | 0.0004 |
| No | 6.1 | 93.9 | Significant |
| Family history of illness | | | |
| Yes | 21 | 79 | 0.0007 |
| No | 4.6 | 95.4 | Significant |
| Sex of the baby | | | |
| Male | 5.8 | 94.2 | NS |
| Female | 7.6 | 92.4 | |

NS - Not Significant

neonatal problems were chief contributing factors for the occurrence of postpartum depression .

On statistical analysis using chi-square test, five important variables emerged as significant risk factors, namely poor socio-economic status, love marriage, living in nuclear family, history of mental illness or alcoholism in the family members, and past history of psychiatric illness (Table 2).

Previous psychiatric illness, economic deprivation, social isolation, and loss of social security due to nuclear family and love marriage are major contributing factors for the occurrence of postpartum depression and prevention should aim at enhancing the social support. As the risk of recurrence of postnatal depression is 25%, preventive therapy after delivery should be considered for women with previous episodes of depression ⁷. Most women with postpartum

depression are not diagnosed and treated. If not identified and treated in time, 20% of severe postnatal depression will become chronic⁸. Pregnancy is an ideal time for women to be screened for depression. Therefore, obstetricians should play a key role in identifying women at risk and provide adequate treatment. Ideally mental health should form a part of maternal health care system.

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