Original Article

DOI: 10.17354/ijss/2015/550

Psychiatric Morbidities in Postpartum Period in Primiparous Women Attending Tertiary Care Center

Rohit C Deshmukh[1], Mukund Murke[2], Ashish V Saboo[3], Shrikant B Deshmukh[4], Anita Nagargoje[5], Samarth Waghambare[6]

[1]Post-graduate Student, Department of Psychiatry, Dr. Panjabrao Deshmukh Memorial Medical College, Amravati, Maharashtra, India, [2]Assistant Professor, Department of Psychiatry, Dr. Panjabrao Deshmukh Memorial Medical College, Amravati, Maharashtra, India, [3]Associate Professor, Department of Psychiatry, Dr. Panjabrao Deshmukh Memorial Medical College, Amravati, Maharashtra, India, [4]Professor and Head, Department of Psychiatry, Dr. Panjabrao Deshmukh Memorial Medical College, Amravati, Maharashtra, India, [5]Assistant Professor, Department of Psychiatry, DUPMCH, Jalgaon, Maharashtra, India, [6]MBBS & RMO at Lilawati Hospital, Mumbai, Maharashtra, India

Abstract

Introduction: Postpartum period refers to period of 6-week after delivery. During pregnancy, there are progressive anatomical and physiological changes not only confined to genital organs, but also to all systems of the body. The postpartum period represents one of the most important life stages in which the accurate detection and treatment of psychological distress are required. We have done this study to find out the prevalence of mental illness in primipara patients in the postpartum period. Furthermore, we studied its correlation with other significant obstetric profile.

Materials and Methods: The study conducted on 96 patients above 18 years age, who delivered (including all modes of delivery) recently within 7 days and who were primipara, i.e., delivered the first baby. Participants were recruited from Department of Obstetrics and Gynecology, were assessed for psychiatric morbidity by applying dukes general health questionnaire and Diagnostic and Statistical Manual-5th Edition self-rated level 1 cross-cutting symptom measure - adult.

Results: We found the prevalence of psychiatric morbidity in postpartum primipara to be 27.08%. Among these, depression (11.45%), anxiety (9.37%), and psychosis (4.16%) were more prevalent. Young mothers and working mothers had a heightened risk of developing psychiatric morbidity following delivery. Unplanned pregnancy, female gender of the baby, and forceps delivery were significant obstetric profiles in relation to psychiatric illness in the postpartum period.

Conclusion: Psychiatric morbidities in the postpartum period in primiparous patients attending tertiary care center have high prevalence mainly of depressive and anxiety disorders. Furthermore, the majority were under diagnosed and not assessed for psychiatric evaluation, thus remained untreated.

Key words: Mental disorders, Morbidity, Postpartum period, Prevalence, Psychiatry

INTRODUCTION

Puerperium has been defined as the time period extending from the delivery of the placenta to the following 6 weeks. Usually, during this period, the majority of the changes that have taken place during pregnancy, labor, and delivery resolve, reverting the body back to the non-pregnant state. During pregnancy, there are progressive anatomical and physiological changes not only confined to genital organs, but also to all systems of the body. Therefore, the postpartum period has been recognized as an important stage of life during which the accurate detection and treatment of psychological distress, if any, becomes necessary.

Postpartum psychological health is more critical, especially in primiparous women. Primipara has been defined as a woman who had been pregnant with a fetus that attained a weight of 500 g or a gestational age of 20 weeks, irrespective of whether the infant was born alive or stillborn and whether it was a single or multiple births.

Access this article online

www.ijss-sn.com

Month of Submission : 10-2015
Month of Peer Review : 11-2015
Month of Acceptance : 12-2015
Month of Publishing : 12-2015

Corresponding Author: Dr. Rohit C Deshmukh, Ramekar Buildings, Joglekar Plots, Rukhmini Nagar, Amravati - 444 606, Maharashtra, India. Phone: +91-9890994801. E-mail: rohitd902@gmail.com

The transition to new motherhood has been found to be associated with emotional distress in up to 30% of women. It involves changes in the nature of relationships between couples as well as within families, thereby causing additional financial burden, even among households of high socio-economic status. Over the years, several studies have identified the resultant impact of stressful life events and social health issues on maternal psychological morbidity.[1,2]

Postpartum psychiatric disorders may include transient depressive symptoms (i.e., the "postpartum blues"), postpartum depression, postpartum psychosis, and postpartum anxiety (including new onset or exacerbation of obsessive-compulsive disorders).[3]

Postpartum blues are the most commonly observed puerperal mood disturbance. Its symptoms arise within a few days of delivery, most probably on the 3rd or 4th day and persist from few hours to over several days. The symptoms include irritability, tearfulness, mood lability, generalized anxiety, sleep, and appetite disturbance. Postpartum blues are by definition time limited, mild, do not require treatment other than reassurance, and remit within days.[4,5] Non-psychotic postpartum depression is the most common complication of childbearing, occurring in 10-15% of women after delivery.[6] The onset is usually within the first 6 weeks postpartum with the clinical features same as those associated with a major depression episode occurring at other times. Suicidal ideation has also been found to be reported.

Puerperal or postpartum psychosis is the most severe and uncommon form of postnatal illness with rates of one to two episodes per 1000 deliveries.[7] Clinical onset is rapid with symptoms presenting as early as the first 48-72 h postpartum, a majority of episodes developing within the first 2 weeks of delivery. Manic episodes are less frequent, accounting for 15% of psychotic reaction,[8] whereas schizophrenic disorder comprises about 30% of postpartum psychosis.[9]

Postpartum anxiety disorder as such is common but present predominantly as a symptom of other postpartum psychiatric disorders. Miller *et al*.,[10] were able to show in a recent study employing a self-report measure that 10% of women suffered symptoms of anxiety and stress 6 weeks to 6 months postpartum.

A study by Glasheen *et al*.,[11] of maternal postnatal psychological distress suggests that exposure is related to adverse psychological problems in children. Solitary living, smoking, multiparity, low socio-economic status, and a body mass index of 30 or more were found to have a significant association with a psychiatric diagnosis in the postpartum period. Since there is no formal screening mechanism for postpartum psychiatric disorders, recognition falls to obstetricians, who may only see the patient once at the 6 weeks postpartum check-up, or to pediatricians. For these and other reasons, detection of postpartum psychiatric disorders remains a major problem. Optimally, the obstetrician should have an established screening and referral process for new mothers to enhance the detection and treatment of postpartum psychiatric disorders. Pediatricians may be in a better position to follow the mother for mood and anxiety symptoms during well-baby visits.[3]

According to Diagnostic and Statistical Manual-5th Edition (DSM-5), psychiatric diagnoses in postpartum period include brief psychotic disorder postpartum onset, bipolar mood disorder with peripartum onset and major depressive disorder with peripartum onset.[12]

The aim of this study was to determine the prevalence of psychiatric morbidity in postpartum women, who are primipara and to examine the associated factors of these disorders.

MATERIALS AND METHODS

This prospective observational study was conducted on 96 patients from outpatient and inpatient Department of Obstetrics and Gynecology Dr. PDMMC Hospital and Research Centre Amravati, Maharashtra. Patients included in the study were those who fulfilled the inclusion criteria. All the cases were informed about the nature of the study beforehand, and a written informed consent was obtained from each of them for the same. The Ethical Committee of the Institute approved the study.

Inclusion Criteria

1. Women who delivered including all modes of delivery within 7 days
2. Women who were primipara, i.e., who delivered their first baby.

Exclusion Criteria

1. Multiparous women
2. Women with a history of psychiatric illness
3. Women having associated medical illness.

All study subjects were evaluated postpartum on 7th, 15th, 30th, and 45th day of delivery postpartum in four sittings. A psychiatric evaluation was carried out on the basis of a structured proforma which contained the socio-demographic details and information regarding the physical and mental status examination of the subjects. All subjects were assessed for psychiatric comorbidity by applying

Dukes general health questionnaire.[13] and DSM-5 self-rated level 1 cross-cutting symptom measure - adult.[14]

Statistical Analysis

A descriptive analysis was done. Data analysis were performed using the open Epi Version 3, with significance levels set at $P < 0{\cdot}05$. Statistical methods include Chi-square test, *t*-test, *P*-value for significance, and correlation coefficient for correlation between different variables.

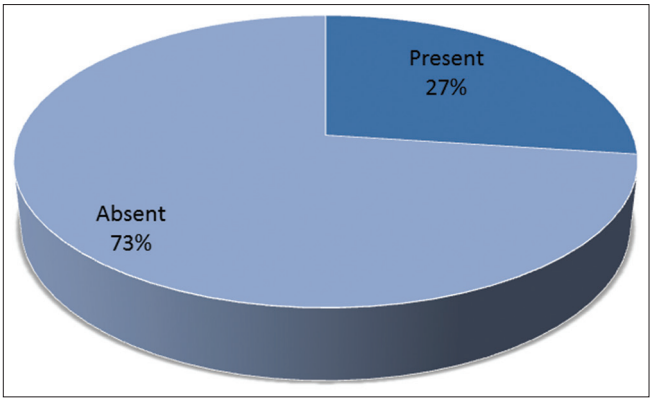
RESULTS

This study was conducted on 96 primipara subjects who were in postpartum period. Most of them were Hindu (83.33%); 47.91% subjects belonged to rural and 41.66% to an urban background. About 74 subjects were literate and 22 illiterate. Among them, the majority were housewives 68 (70.83%) and others 28 (29.16%) were working.

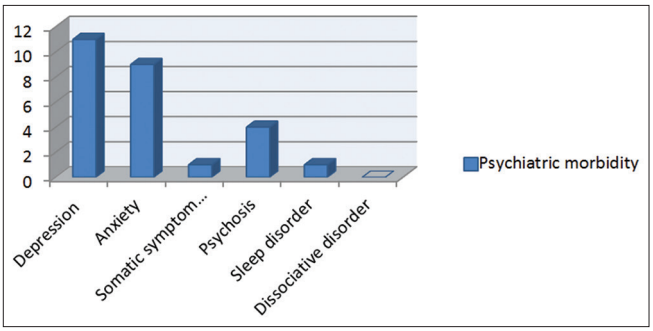
We correlated demographic profile with psychiatric morbidity. As shown in Table 1, early age of the pregnancy (18-25 years) and working women were having significantly higher prevalence of psychiatric morbidity and other demographic factors were not significantly related. Our study revealed as in Table 2 and Graph 1 that out of the 96 subjects, 26 (27.08%) had developed psychiatric morbidity and in 70 (72.91%) cases, the postpartum period was uneventful and no psychiatric disturbance was reported.

All the 96 subjects selected were primipara in postpartum period; of these 46 (47.91%) had delivered male and 49 (51.04%) had female baby. Mode of delivery was normal vaginal delivery in 60 (62.5%) subjects, whereas cesarean section was performed in 26 (27.08 %) and 10 (10.41%) had a forceps delivery. 64 (64.58 %) subjects reported their pregnancy was planned, and 34 (35.41%) said that pregnancy was unexpected and unplanned.

The correlation between obstetric profiles shown in Tables 3-5 suggested that prevalence of psychiatric morbidity was high when the gender of a baby born was female (30.61%) and when pregnancy was unplanned (47.05%). After further analysis (Table 6 and Graph 2), we found that among all subjects, there was a higher prevalence of depression (11.45%) in primiparous women during their postpartum period compared to the prevalence of anxiety (9.37%) and postpartum psychosis (4.16%).



Graph 1: Psychiatric morbidity in primiparous postpartum subjects



Graph 2: Types of psychiatric morbidity in postpartum primiparous subjects

Table 1: Correlation of psychiatric morbidity and demographic factors

Factor	Subdivision	Number of patients *n*	Number of patients with psychiatric morbidity	Percentage of morbidity	*P* value
Age in years	18-25	44	18	32.65	0.013
	26-30	30	6	25.92	
	31 or more	22	2	15.0	
Religion	Hindu	80	20	25.0	0.162
	Muslim	16	6	37.5	
Occupation	Housewife	68	14	30.88	0.016
	Working	28	12	17.85	
Domicile	Urban	40	9	22.5	0.077
	Rural	46	17	36.95	
Literacy	Literate	74	21	28.37	0.312
	Illiterate	22	5	22.72	

Table 2: Psychiatric morbidity in primiparous postpartum subjects

Psychiatric morbidity	*n* (%)
Present	26 (27.08)
Absent	70 (72.91)
Total	96 (100)

Table 3: Correlation between gender of baby and psychiatric morbidity

Gender of baby born	Number of patients *n* (%)	Psychiatric morbidity present	Percentage of morbidity	*P* value
Male	46 (47.91)	11	23.91	0.25
Female	50 (51.04)	15	30.00	

Table 4: Correlation between mode of delivery and psychiatric morbidity

Mode of delivery	Number of patients *n* (%)	Psychiatric morbidity present	Percentage of morbidity	*P* value
Still birth	1 (1.04)	0	0	0.90
Vaginal	60 (62.50)	16	26.66	
Forceps	10 (10.41)	3	30	
Cesarean	26 (27.08)	8	30.76	

Table 5: Correlation between mode of pregnancy and psychiatric morbidity

Mode of pregnancy	Number of patients *n* (%)	Psychiatric morbidity present	Percentage of morbidity	*P* value
Planned	62 (64.58)	10	16.12	0.0008
Unplanned	34 (35.41)	16	47.05	

Table 6: Types of psychiatric morbidity in postpartum primiparous subjects

Psychiatric morbidity	*n* (%)
Depression	11 (11.45)
Anxiety	9 (9.37)
Somatic symptom disorder	1 (1.04)
Psychosis	4 (4.16)
Sleep disorder	1 (1.04)
Dissociative disorder	0

DISCUSSION

Although there are many studies about postpartum psychiatric morbidity, this is a first of its kind in which we carried out a study in especially primipara subjects. Postpartum mental disorder is a spectrum of illnesses ranging from the very mild postpartum blues, through postpartum depression that is of moderate severity to the very severe puerperal psychosis.[15,16] In our study, we found that the prevalence of psychiatric morbidity in postpartum primipara subjects was found to be 27.08%, which was also correlated with other studies done before. Our results showed the higher prevalence with young 18-25 years maternal age (32.65%) and with working women (30.88%).

One previous study concluded that the incidence of postpartum mental illness in our practice was 2.9 per 1000 births along with a preponderance of primiparity and young maternal age in the study group.[17]

Bener *et al*., study[18] showed that working women were more likely to suffer from anxiety (51.8%) and stress (60.7%) disorders in their postpartum period. The major factors associated with depression include an unplanned pregnancy, lack of support from the family, and mothers living as housewives. On the other hand, lack of family support and dissatisfaction in married life were the major correlates for anxiety disorders.

Our study suggested that prevalence of psychiatric morbidity was high when the gender of a baby born was female (30%), and when delivery carried out by forceps delivery 70% but it was statistically not significant. The high prevalence (47.05%) was observed with an unplanned pregnancy, and it was statistically significant ($P = 0.008$), which may be because of a lot of stress suffered during unplanned pregnancy. Bener *et al*., study[18] stated the most common life events that affected women during their postpartum period were unplanned pregnancy and poor relationships with their mothers-in-law.

This study identified a higher prevalence of depression (11.45%) in primiparous women during their postpartum period compared to the prevalence of anxiety (9.37%) and postpartum psychosis (4.16%). A study by Matthey *et al*.,[19] showed a similar psychological morbidity, with 17% experiencing depression and 13% experiencing anxiety.

Postpartum depression is a public health problem that has several adverse effects on the mother, the infant, and the whole family. Affonso *et al*.,[20] found that the European and Australian women were least affected by the postpartum depressive symptoms, whereas mothers from the non-western countries such as Taiwan and India suffered the most. Nearly half of the depressed mothers reported experiencing more than one stressful life event in their postpartum period such as low income or unplanned pregnancy.

CONCLUSION

The results of this study imply that adequate postpartum care is essential in the diagnosis of psychological distress.

Therefore, it is imperative to sensitize the health care personnel to a range of social health issues that are observed during the postpartum period. The health care personnel, on their part, also need to be alert considering the high prevalence of psychological morbidity among the women during this period. The need of the hour is to develop several preventive strategies that will either reduce or eliminate the causative and associated factors thereby improving and enhancing the emotional well-being of women during the postpartum period.

Limitations of the Study

The limitations of our study were small sample size. The bigger sample size is required to prove or disprove the conclusion. The study did not assess the prevalence of stress, anxiety, and depression in the studied women during their antenatal period. According to WHO definition, postpartum period lasts for up to 6-month and hence patients should be followed up from antenatal period up to 6-month of postpartum.

Future Directions

The evidence from this paper and many papers done before it has established that postpartum period is a risk factor for depression. Regularizing antenatal checkups and screening for psychiatric disorders during antenatal and postnatal checkups will further aid in the early detection of antepartum and postpartum psychological disorders. Training the obstetrician will help in better and early identification of psychological disorders. Screening during the antenatal and postnatal visit and increase, in general, awareness among the health workers, mother, and her family members about the commonness of psychiatric disorders in postpartum period will help them to seek medical care rather than quick care.

ACKNOWLEDGMENT

This study was not generously supported and funded by any authority or institute. Medical College Institutional Review Board's Ethical Approval was done. The authors would like to thank to Dr. PDMM College and Hospital, Psychiatry and Obstetrics and Gynecology Department for their support and ethical approval.

REFERENCES

1. Braveman P, Marchi K, Egerter S, Kim S, Metzler M, Stancil T, *et al.* Poverty, near-poverty, and hardship around the time of pregnancy. Matern Child Health J 2010;14:20-35.
2. Yelland J, Sutherland G, Brown SJ. Postpartum anxiety, depression and social health: Findings from a population-based survey of Australian women. BMC Public Health 2010;10:771.
3. Sadock BJ, Sadock VA, Ruiz P. Comprehensive Textbook of Psychiatry. 9th ed. Baltimore, MD: Lippincott Williams and Wilkins; 2009.
4. Pitt B. 'Maternity blues'. Br J Psychiatry 1973;122:431-3.
5. Kennerley H, Gath D. Maternity blues. I. Detection and measurement by questionnaire. Br J Psychiatry 1989;155:356-62.
6. O'Hara M, Swain A. Rates and risk of postpartum depression: A meta-analysis. Int Rev Psychiatry 1996;8:37-54.
7. Andersson L. Implications of Psychiatric Disorders during Pregnancy and the Postpartum Period - A Population-based Study. Umeai: Printed by Umae University, Print and Media; 2004.
8. Boyd DA. Mental disorders associated with childbearing. Am J Obstet Gynecol 1942;43:148-63.
9. Kaij L, Nilsson A. Emotional and psychotic illness following childbirth. In: Howells J, editor. Modern Perspectives in Psycho-Obstetrics. Edinburgh: Oliver and Boyd; 1972. p. 363-83.
10. Miller RL, Pallant JF, Negri LM. Anxiety and stress in the postpartum: Is there more to postnatal distress than depression? BMC Psychiatry 2006;6:12.
11. Glasheen C, Richardson GA, Fabio A. A systematic review of the effects of postnatal maternal anxiety on children. Arch Womens Ment Health 2010;13:61-74.
12. American Psychiatric Association II. Task Force on DSM-5™ 2000. Diagnostic and Statistical Manual of Mental Disorders: DSM-5™. 5th ed. Arlington: American Psychiatric Pubilcation; 2013.
13. Schuntermann MF. The Duke Health Profile (DUKE). Rehabilitation (Stuttg) 1997;36:I-XIV.
14. DSM-5 Self-Rated Level 1 Cross Cutting Symptom Measure - Adult. American Psychiatric Association II. Task Force on DSM-5™ 2000. Diagnostic and Statistical Manual of Mental Disorders: DSM-5™. 5th ed. Arlington: American Psychiatric Publication; 2013.
15. Depression Guideline Panel: Depression in Primary Care. Vol. 1. Detection and Diagnosis. Clinical Practice Guideline No. 5. Rockville, MD, US: Department of Health and Human Services, Public Health Service, Agency for Health Care Policy and Research; 1993.
16. O'Hara MW, Neunaber DJ, Zekoski EM. Prospective study of postpartum depression: Prevalence, course, and predictive factors. J Abnorm Psychol 1984;93:158-71.
17. Adefuye PO, Fakoya TA, Odusoga OL, Adefuye BO, Ogunsemi SO, Akindele RA. Post-partum mental disorders in Sagamu. East Afr Med J 2008;85:607-11.
18. Bener A, Gerber LM, Sheikh J. Prevalence of psychiatric disorders and associated risk factors in women during their postpartum period: A major public health problem and global comparison. Int J Womens Health 2012;4:191-200.
19. Matthey S, Barnett B, Howie P, Kavanagh DJ. Diagnosing postpartum depression in mothers and fathers: Whatever happened to anxiety? J Affect Disord 2003;74:139-47.
20. Affonso, DD, De AK, Horowitz JA, Mayberry LJ. An international study exploring levels of postpartum depressive symptomatology. Journal of Psychosomatic Research, 2000;49:207-16.

How to cite this article: Deshmukh RC, Murke M, Saboo AV, Deshmukh SB, Nagargoje A, Waghambare S. Psychiatric Morbidities in Postpartum Period in Primiparous Women Attending Tertiary Care Center. Int J Sci Stud 2015;3(9):36-40.

Source of Support: Nil, **Conflict of Interest:** None declared.