Research Article

SOCIO-DEMOGRAPHIC RISK FACTORS AND PROPORTION OF POSTPARTUM DEPRESSION IN A TERTIARY CARE CENTRE OF EAST DELHI

Abha Sharma* and Richa Sharma

Department of Obstetrics and Gynaecology, UCMS and GTB Hospital, Delhi

A R T I C L E   I N F O

A B S T R A C T

Postpartum depression (PPD) is a serious condition generally occurs at 4-6 weeks after delivery. Many women suffering from postpartum depression fail to seek help due to social stigma and inadequate social support in a developing country like India. Women were assessed by Edinburgh Postnatal Depression Scale (EPDS) Hindi version for postpartum depression at 2 weeks and 6 weeks postpartum. Prevalence of PPD was 16% and Socio demographic factors significantly associated with PPD are lower socio economic status and joint family.

INTRODUCTION

Postpartum depression (PPD) is a serious condition generally occurs at 4-6 weeks after delivery with features of low mood, sadness, low energy, forgetfulness, irritability, anxiety, mood swings, preoccupancy with infant well-being, anhedonia, sleep disturbance, decreased appetite, reduced libido, psychomotor disturbance, feeling of worthlessness, guilt and suicidal ideation[1]. Postpartum depression according to International Classification of Disease 10 (ICD 10) is defined as the mental and behavioral disorder commencing within 6 weeks of delivery, that do not meet the criteria for disorder classified elsewhere[2]. PPD may last several months or even a year after delivery.

The overall prevalence of PPD has been reported up to 60% depending on the population and study method[3]. Many women suffering from postpartum depression fail to seek help due to social stigma and inadequate social support in a developing country like India[4].

Aim: To evaluate the proportion and demographic profile of women with Postpartum Depression

MATERIALS AND METHODS

An observational study was conducted on pregnant women of any age, parity and who were willing to participate in the study till the completion were enrolled for the study in third trimester

Corresponding author: **Richa Sharma**
Department of Obstetrics and Gynaecology, UCMS and GTB Hospital, Delhi

if they had at least one of the following risk factors according to Antenatal Postpartum Depression Predictors Inventory-Revised (PDPI-R)

- Single parent: divorced, widow, separated
- Low socio economic status (According to Modified Kuppuswamy Scale)
- Low self esteem or negative self estimation (does not feel good/worthwhile/no good qualities)
- Past history of documented depression
- History of prenatal anxiety (feeling of uneasiness or apprehension concerning a vague non specific threat)
- Unplanned or unwanted pregnancy
- Lack of social support (both parents working, nuclear family, poor socio emotional support from paternal or maternal side, dependant on maid etc.)
- Marital dissatisfaction (affection, communication, mutual activities,)
- History of life stress

Exclusion criteria

- women with diagnosis of depression in current pregnancy
- women with a history of psychiatric illness other than depression

Ethical clearance was obtained from institutional ethical clearance committee for human research. An informed written consent was taken from all women after enrolment In third trimester eligible antenatal women were enrolled for the study and a detailed history with emphasis on socio demographic status was taken.

All enrolled women were followed at 2 weeks and 6weeks after delivery for any symptom of postpartum depression. History of postpartum maternal morbidity or neonatal morbidity and mortality if any was documented. All women were assessed by Edinburgh Postnatal Depression Scale (EPDS) Hindi version for postpartum depression. EPDS is a 10-item, screening questionnaire for postpartum depression. It records the mental status of the mother, how she felt during the last seven days. Each item has four possible responses, which are scored from 0-3 depending on the severity of the responses. Higher scores indicate more severe depressive symptoms with a maximum total score of 30. The recommended cut-off point is 9/10. A score of 10 or higher may indicate that depression symptoms have been reported.

Scoring

- Q 1, 2 and 4- are scored 0, 1, 2 or 3 with top box scored as 0 and bottom box scored as 3.
- Q 3, 5-10- are reversed score with top box scored as 3 and the bottom box scored as 0.

Maximum score: 30
Possible depression: 10 or greater
Always look at item '10' (suicidal thoughts)
At 2 week follow up, women were screened for PPD by this EPDS scale. Women scoring 10 or greater were taken to psychiatrist for evaluation and to confirm the postpartum depression as per ICD-10 criteria. Women who were confirmed with postpartum depression were selected as cases. Women with EPDS score less than 10 were followed up at 6 weeks and again screened at 6 weeks for PPD by EPDS. Women scoring 10 or greater were taken to psychiatrist for confirmation. After confirming they were taken as cases. Equivalent number of women scoring less than 10 were selected as controls.

RESULTS

Total number of women evaluated were 60. Proportion of PPD in our study was 16% at 6 weeks, taking EPDS score 9 as cut off.

Table 1 socio-demographic profile of women

	n=60	Case(30)	Control(30)	P value
Age distribution (years)				
20-25	28	14(46.7%)	14(46.7%)	
26-30	30	15(50%)	15(50%)	1.000*
31-35	1	1(3.3%)	0(0%)	
>35	1	0(0%)	1(3.3%)	
Religion				
Hindu	44	20(66.7%)	24(80%)	
Muslim	14	9(30%)	5(16.7%)	0.222
Sikh	2	1(3.3%)	1(3.3%)	
Christian	0	0(0%)	0(0%)	
Socio economic status				
Upper	0	0(0%)	0(0%)	
Upper middle	8	4(13.3%)	4(13.3%)	
Lower middle	30	7(23.3%)	23(76.7%)	<0.001
Upper lower	19	16(53.4%)	3(10%)	
Lower	3	3(10%)	0(0%)	
Type of family				
Joint	45	18(60%)	27(90%)	<0.001*
Nuclear	15	12(40%)	3(10%)	
Marital status				
Married	58	28(93.4%)	30(100%)	
Separated	2	2(6.6%)	0(0%)	0.492*
Single/Widow/Partnered/Divorced	0	0(0%)	0(0%)	
Duration of marriage(years)				
0-5	28	13(43.4%)	15(50%)	0.064*
6-10	23	9(30%)	14(46.7%)	
11-15	8	7(23.3%)	1(3.3%)	
>15	1	1(3.3%)	0(0%)	

Age: Out of 60, 30 (50%) women were in the age group of 25-30.The mean age of the women in both the study groups was 25.90 (±3.068 SD) years with the range of 21-36 years. Mean age of subjects in cases was 25.57 (±2.77 SD) years and in controls was 26.23 (±3.35 SD) years. Both the groups were comparable with respect to age. No statistical significance was found between age and postpartum depression (p value 1.000).

Religion: Majority of women were Hindu by religion followed by Muslim in both the study groups with p value 0.222 .Both the groups were comparable with respect to religion

Socio economic status: Socio economic status scoring was done by Modified Kuppuswamy Classification based on education, occupation and per capita income. Maximum number of the women coming to GTB Hospital belonged to the middle class followed by lower class. Among PPD women majority (53.4%) belonged to lower class whereas among controls majority (76.7%) belonged to middle class. Statistically significant association was found between postpartum depression and lower socio economic status. PPD was more likely in women with lower socio economic status (p value <0.001)

Type of family: Majority of women belonged to joint family in both case (18%) and control group(27%). Among PPD cases 60% belonged to joint family & 40 % belonged to nuclear family. Among controls 90% belonged to joint family and only 10% to nuclear family. Statistically significant association (p value< 0.001) was found between nuclear family and postpartum depression. This finding suggest that the joint family ads as a protective factor for PPD.

Marital status: Majority of women participated were married in both case (93.4%) and controls(100%) groups. Only 2 participants were separated and none were single, widowed , partnered or divorced.

Duration of marriage: Majority of women had duration of marriage within 10 years in both PPD cases and controls. No statistical significance (p value 0.064) was found between duration of marriage and PPD.

DISCUSSION

Postpartum period is particularly important as depression at that time not only affects the women but mother - child bonding, husband - wife relationship, interpersonal relations and whole family also gets affected.

The worldwide prevalence of PPD ranges from 1% to 73.7% using various tools and rating scales[5.] The variability of prevalence of PPD can be explained by the fact that different studies had employed different scales and at different time in the postpartum period. It may also be influenced by the cross cultural differences in different regions, differences in perception of mental health and stigma associated with it.

The prevalence of postpartum depression in Delhi was 15.8% (out of 202 women 32 were diagnosed with depression) as reported by Gupta et al[4] which is almost near to the findings of our study even though both the studies differed in the scale used as screening tool. Gupta et al had conducted the study in a tertiary hospital of Delhi on women who had attended

postnatal clinic at 6 weeks postpartum using PRIME MD TODAY whereas in our study we used EPDS as the screening tool.

Age: In our study, age was not found to be a risk factor for the development of postpartum depression. This is similar to the results of the study by Green *et al*, and some other researcher [5-7] who observed no association between age and postpartum depression.

Socio-economic status: When a new baby is born there is a decrease in disposable income due to the added financial responsibilities that come along with the addition of a new member. This means lesser finance to spend on their needs and leisure activities. We found a significant association (P value <0.001) of postpartum depression and poverty status of study participants. Majority of the cases developing PPD (53.4%), belonged to lower class whereas among controls majority (76.7%) belonged to middle class. Comparable findings have been reported by other researchers also[6]. Similarly, Silva *et al* found a positive association between lower socioeconomic status and postpartum depression (d58). He studied a cohort of 1109 women in their prenatal and postnatal periods. He concluded that lower socio economic status was significantly associated with PPD (p=0.020, RR 1.76,95%CI)[8.]

Type of family: Statistically significant association (p value< 0.001) was found between nuclear family and postpartum depression. So we can conclude that living in a joint family was a protective factor for PPD. mothers in joint families get more support during physically and mentally stressful postpartum period. Mothers in nuclear family have to fend for themselves for their needs or depend on their husbands to do household chores unless some relatives or family members come over for their help. Similar findings of protective effect of joint family have been reported by other researchers in Pakistan[7.] Rahman *et al* demonstrated that in Pakistan, there is a positive influence of the traditional extended family and associated cultural practices like 'chilla'. In this practice, post partum women are confined for 40 days and all the household chores are performed by other female members of the family. Rahman screened the antenatal women in their third trimester of pregnancy at 6 weeks before delivery and at 10- 12 weeks after delivery. Point prevalence of ICD 10 depressive disorder was 25% in antenatal and 28% in post natal period. Depressed women had poorer social and family support than non depressed mothers. Also support from the child's grandmother was observed to be a protective factor in the development of postpartum depression.

Marital status: Majority of women participated were married in both case (93.4%) and controls (100%) groups. Only 2 participants were separated and nobody was single, widowed, partnered or divorced. In our study marital status was not found to be significant.

The reason for this may be because of less number of single mother participated in our study. Contrary to this Ghosh *et al*[7] found significant association between single mother and postpartum depression (widow 96% unmarried 100%, separated 100% showing higher preponderance)

Duration of marriage: Duration of marriage was observed to be a non significant factor for the occurrence of postpartum depression. Similar results were observed in the study by Paykel *et al* and Mahmud *et al* in which no association was found between postpartum depression and duration of marriage[8,10]

CONCLUSION

The proportion of PPD is 16% at 6 weeks. Socio demographic factors significantly associated with PPD are lower socio economic status and joint family.

References

1. ICD-10 Version: 2010. Available from: http://apps.who.int/classifications/ icd10/ browse/2010/en#/F53.0. Accessed on 17th April, 2017.
2. Postpartum Depression from Pregnancy Guide, by Peter J. Chen, at Hospital of the University of Pennsyvania. Available from https://en.wikipedia.org/wiki/ Postpartum_depression. Accessed on 2nd April, 2017
3. Yonkers KA, Ramin SM, Rush AJ, Navarrete CA, Carmody T, March D *et al*. Onset and persistence of postpartum depression in an inter-city maternal health clinic system. Am J Psychiatry 2001;158(11):1856-63.
4. Gupta S, Kishore J, Mala YM, Ramji S, Aggarwal R. Postpartum depression in north Indian women: prevalence and risk factors. *J Obstet Gynaecol India* 2013;63(4):223-9.
5. Halbreich U, Karkun S. Cross-cultural and social diversity of prevalence of postpartum depression and depressive symptoms. *J Affect Disord* 2006;91:97-111.
6. Savarimuthu RJ, Ezhilarasu P, Charles H, Antonisamy B, Kurian S, Jacob KS. Post-partum depression in the community: a qualitative study from rural South India. *Int J Soc Psychiatry* 2010;56(1):94-102.
7. Ghosh A, Goswami S. Evaluation of post partum depression in a tertiary hospital. J Obstet Gynaecol India 2011;61(5):528-30.
8. Chandran M, Tharyan P, Muliyil J, Abraham S. Post-partum depression in a cohort of women from a rural area of Tamil Nadu, India: Incidence and risk factors. *Br J Psychiatry* 2002;181(6):499-504.
9. Gokhale AV, Vaja A. Screening for postpartum depression. *Gujarat Med J* 2013;68(2):46-51.
10. Dubey C, Gupta N, Bhasin S, Muthal RA, Arora R. Prevalence and associated risk factors for postpartum depression in women attending a tertiary hospital, Delhi, India. *Int J Soc Psychiatry* 2012;58(6):577-80.

****