

Identification of women at risk for peripartum depression

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Abstract

Introduction: Peripartum depression is a common yet neglected entity in our society. Edinburgh Postnatal Depression Scale (EPDS) score is a valuable and efficient way of identifying patients at risk for peripartum depression. It is easy to administer and has been proven to be an effective screening tool.

Objective: To find prevalence of peripartum depression in the study group and to study and evaluate the association of various factors causing peripartum depression using EPDS score.

Materials and Methods: Five hundred peripartum women were interviewed using a structured questionnaire which included sociodemographic details like age, education, socioeconomic status, family structure, any history of previous psychiatric illness and outcome of current pregnancy in terms of mode of delivery, intranatal complications, gender of new born and neonatal complications. EPDS scoring was done and data was statistically analysed.

Results: The prevalence of peripartum depression in our study was found to be 18%. (EPDS score \geq 13). Significant association (P<0.05) was found in parity, low socio economic group, joint family structure, past history of psychiatric illness, history of domestic violence, female gender of the infant and poor obstetric outcome.

Conclusion: Mental health assessment and screening of high risks cases should be a part of routine antenatal care.

Keywords: Peripartum depression, EPDS score.

Introduction

Peripartum depression (PPD) is a serious public health concern that affects approximately 13%-25% of women who give birth and it is one of the leading causes of maternal morbidity. It is associated with adverse effects on the cognitive and social development of the infant.⁽¹⁾ The self-administered, 10-question Edinburgh Postnatal Depression Scale (EPDS)⁽²⁾ is an effective screening tool for peripartum depression because it is reliable, easy for clinicians to score, and predictive of a clinical diagnosis of Peripartum depression. Identification of clear correlations between certain risk factors and a diagnosis of peripartum depression could lead to earlier intervention for these patients.^(3,4)

Depression is very common, yet a neglected problem in new mothers, that can affect their own health as well as that of their children. The present study was carried out to study the prevalence of women at risk for peripartum depression using Edinburgh Postnatal Depression Scale (EPDS) score and to evaluate the association of different sociodemographic and obstetric factors with Peripartum Depression, so that these women can be screened in their early puerperium while in the hospital and can be provided with special care.

Materials and Methods

This Cross sectional observational study was conducted in the Department of Obstetrics and Gynecology, Santosh Medical College and Hospitals, Ghaziabad. A total number of 500 women, who were between 36 weeks of pregnancy and within 7 days

postpartum were included in the study. They were interrogated using a structured questionnaire which included sociodemographic informations (age, parity, literacy, socioeconomic status), family conditions, (marital status, family structure, history of physical, mental or sexual abuse, past history of psychiatric illness), mode of delivery (vaginal delivery, Cesarean section), any intranatal complications, obstetric outcome (healthy baby, sick baby, dead baby) and gender of the baby (male or female).

The women were also evaluated using Edinburgh Postnatal Depression Scale (EPDS). This is a questionnaire comprising of ten questions. Women who score above 13 were taken to be suffering from depression. Results were analysed applying Chi-square test to evaluate the significance of association of these factors with peripartum depression.

Clearance was obtained from the Ethical Committee of the institution.

Results

The prevalence of peripartum depression in the study group was found to be 18%. Table 1 shows the distribution of women with (score>13) and without (score \leq 13) depression with reference to sociodemographic factors. Age, parity and socioeconomic status showed significant relationship with the occurrence of peripartum depression (p<0.05). Table 2 shows distribution of patients with (score>13) and without (score \leq 13) peripartum depression with reference to family and cultural factors. Past history of psychiatric illness, joint family structure, and history of domestic violence showed significant relationship with

Peripartum depression ($P<0.05$). Table 3 shows distribution of patients with (score>13) and without (score≤13) postpartum depression with reference to obstetric factors. Poor obstetric outcome and birth of a

female child had a statistically highly significant relationship ($P<0.001$). Mode of delivery was not found to be significant.

Table 1: Distribution of women with (score>13) and without (score≤13) peripartum depression with reference to sociodemographic factors (n=500).

S. No.	Sociodemographic Factors		Score <13	Score>13	Total	P value
1	Age (years)	<20	18	12	30	< 0.05
		21-25	26	84	110	
		26-30	200	25	225	
		31-35	85	16	101	
		>35	21	13	34	
		Total	350	150	500	
2	Parity	Primi	259	45	304	< 0.0001
		Multi	91	105	196	
		Total	350	150	500	
3	Literacy	Illiterate	95	46	141	0.05
		Primary	79	14	93	
		Secondary	120	65	185	
		Higher	56	25	81	
		Total	350	150	500	
4	Socioeconomic Status	Lower	150	50	200	< 0.05
		Lower middle	92	32	124	
		Upper middle	81	54	135	
		Upper	27	14	41	
		Total	350	150	500	

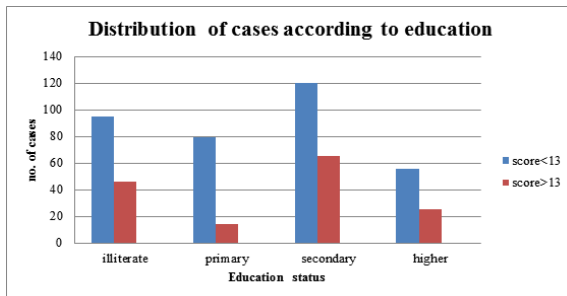


Fig. 1

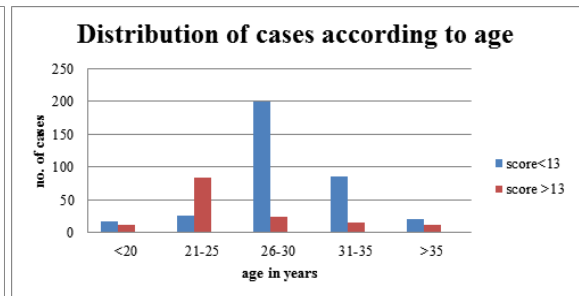


Fig. 2

Table 2: Distribution of patients with (score >13) and without (score ≤13) peripartum depression with reference to family conditions (n=500)

S. No.	Family Conditions		Score ≤13	Score>13	Total	P value
1	Marital status	Married	349	143	492	>0.05
		Widow	1	2	3	
		Divorced	0	4	4	
		Unmarried	0	1	1	
		Total	350	150	500	
2	Family structure	Nuclear	141≤	43	184	<0.05
		Joint	209	107	316	
		Total	350	150	500	
3	Domestic violence	Yes	107	63	170	<0.05
		No	243	87	330	
		Total	350	150	500	
4	Psychiatric illness	Yes	4	9	13	<0.05
		No	346	141	487	
		Total	350	150	500	

Table 3: Distribution of patients with (score>13) and without (score≤13) peripartum depression with reference to delivery (n=500).

S. No.	Delivery	Score<13	Score >13	Total	P value	
1	Mode of Delivery	Vaginal	248	82	330	>0.05
		Caesarean	128	42	170	
		Total	350	150	500	
2	Obstetric Outcome	Healthy	330	28	358	<0.0001
		Sick	15	73	88	
		Dead	3	25	28	
		Total	350	150	500	
3	Gender	Male	350	33	383	<0.0001
		Female	25	92	117	
		Total	350	150	500	

Discussion

Depression is the most common peripartal disease. The prevalence of peripartum depression is 18% in our study which was comparable with other studies.^(5,6,7) In the present study, there was a significant association of subjects with age more than 30 years with peripartum depression probably because of the type of patients we get and most of the women were from disadvantaged socioeconomic background. Studies^(5,6) found a higher incidence of PPD in teenage or adolescent mothers than in older mothers. However, Bjerke et al⁽⁷⁾ found that age ≥30 years to be associated with Peripartum Depression.

Our study has found significant association with multiparity as found by Ho-Yen et al.,⁽⁸⁾ Mayberry et al.⁽⁹⁾ Nielsen Forman et al.⁽¹⁰⁾ However, Blackmore et al⁽¹¹⁾ have found an association with primi parity. Josefsson et al⁽¹²⁾ have concluded that no association exists between the two.

Some studies^(7,8) have reported that unmarried women are more likely than their married counterparts to have depression. The reason could be non-acceptance of unmarried mothers in the society. Results of the study disagreed with these studies because of the type of patients we cater to.

In the present study, literacy does not bear any relationship with peripartum depression as suggested by Chaudron et al.⁽¹³⁾ The studies conducted by Kosinska-Kaczynska et al⁽¹⁴⁾ document a significant association with peripartum depression with low levels of literacy.

We have found significant association between peripartum depression and with those belonging to low socioeconomic status. Kosinska-Kaczynska et al⁽¹⁴⁾, however, found no relationship.

Significant association between patients coming from joint family with peripartum depression was found in our study. On the contrary, Nielsen Forman et al⁽¹⁰⁾ found in their study significant association with nuclear family.

History of domestic violence has been strongly associated with peripartum depression as suggested by other studies^(4,10,12)

The meta-analysis by Beck⁽⁴⁾ found strong evidence that history of depression is a predictor of peripartum depression. O'Hara and Swain⁽⁹⁾ found that prenatal depression, in particular, was a strong predictor and our study similarly showed a strong association ($p<0.0001$) with previous history of psychiatric illness.

Studies^(10,11) report that cesarean section was a significant risk factor for patients with peripartum depression at 5 days after childbirth. On the contrary our study does not show any statistical relationship between the mode of delivery and peripartum depression. The studies of Josefsson⁽¹²⁾ and Chaudron⁽¹³⁾ support this finding.

Women having sick or dead baby bear a highly significant relationship with PPD as reported by other studies.^(11,12,15) However, Nielsen Forman⁽¹⁰⁾ found no association with delivery complication.

Giving birth to a female child was also associated with peripartum depression as there is a preference for male child in our society and mothers are usually blamed for giving birth to a female child.

Conclusion

The 18% prevalence of women at risk of peripartum depression in our study, which is similar to other such studies peripartum depression and associated risk factors are highly prevalent in this setting. The results show that the administration of a screening tool to identify women at risk of depression during and after pregnancy should be a universal practice in order to screen and identify women at higher risk. This will help to promote the long-term wellbeing of mothers and babies, Maternal mental health may be an important predictor of infant growth in utero.

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Conflicts of interest: None declared.

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