

An Observational Assessment of the Prevalence of Postnatal Depression and to Study the Associated Risk Factors of Postnatal Depression

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Abstract

Background: Postnatal depression (PND) is a serious mental illness that can strike women at any time during or after birth. Its danger rises over the first 90 days and can last up to almost two years, putting a strain on society as a whole. Although the cause of PN is uncertain, there are risk factors that can lead to the disease. The purpose of this study is to determine the prevalence of PND and its risk factors among women in Bihar.

Material & Methods: A total of 170 women after delivery were included in the study. Data were collected through a self-administered questionnaire with Edinburgh Postnatal Depression Scale (EPDS) from mothers up to four months postpartum.

Results: Prevalence of post-natal depression (PND) was 34%. PND showed significant association with primiparous women, husband's occupation and unplanned pregnancy.

Conclusion: A fairly high prevalence of postpartum depression was revealed among the females after delivery. Therefore, we commend screening of mothers after delivery to help early intervention and management along with psychosocial support.

Keywords: postpartum depression, postpartum, depression, risk factors.

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Introduction

After childbirth, women may experience some difficulties that affect them physically, socially, and psychologically. Despite their importance, psychological consequences are not usually addressed. They can vary from having baby blues - a feeling of sadness that is experienced by a woman shortly after giving birth and usually lasts less than two weeks that is typically accompanied by other symptoms such as mood swings and loss of appetite -

to having postnatal depression (PND). [1, 2]

Postpartum depression is a nonpsychotic depressive episode of mild to moderate severity, beginning in or extending into the first postnatal year. Beck described it as a thief that steals motherhood. [3]

Postpartum depression (PPD) is an important public health problem, having a significant impact on the mother, the

family, her partner, mother-infant interaction and on the long term emotional and cognitive development of the baby.[3] Indian studies also show postpartum depression as a cause of significant psychiatric morbidity in mothers 3 and malnutrition in infants. [4]

Unfortunately, the psychological health of mothers is usually overlooked by postnatal care, which is more focused on obstetric aspects and infant's health. Symptoms of depression - and in severe cases - tendencies of self-harm or even harm to the baby are usually unrecognized and therefore untreated. Consequences of undiagnosed PPD do not only affect the mother and her infant but continue to disturb the family dynamic through a failure of the mother to accomplish her role as a caregiver.[5]

PPD describes non-psychotic depressive episodes, with loss of interest, insomnia, and loss of energy experienced by mothers within the period of 4 to 6 weeks after delivery.[6]

This can create an overall burden on society. Although the etiology is unknown yet, there are risk factors that contribute to developing PPD. Stressful life events, a history of any psychiatric illness or PPD, and lack of social support are considered the most reported ones. Unplanned pregnancy, number of pregnancies, and undesired pregnancy are considered obstetric-related risk factors. Marital status and employment are sociodemographic factors that contribute to PPD. Other precursors such as mode of delivery, breastfeeding, prolonged labor, pregnancy complications, and giving birth for the first time must also be taken into consideration when assessing PPD risk factors. [7, 8]

It is considered a serious public health issue because of its devastating effects on mothers, families, and infants or children.12 Untreated PND can cause chronic depression and interferes in mother

child bonding. [9, 10] Cases of suicide and infanticide have also been rarely reported. [11]

A study of mothers in Goa shows economic deprivation, poor marital relationship, the gender of infant as important risk factors for occurrence of postpartum depression.[4] According to Sichel and Driscoll's 'EARTHQUAKE MODEL', these risk factors can repeatedly weaken a mother's fault line placing her in a dangerous position for an emotional earthquake, such as postpartum depression. [12, 13]

This study aims to study the prevalence of postnatal depression and to study the associated risk factors of postnatal depression.

Materials and Methods:

A total of 170 women after delivery were included in the study through purposive, non-probability sampling technique. It is cross sectional study carried out over the time period of one year.

Inclusion Criteria: All the postpartum women who attended the hospitals between 1st and 8weeks after delivery and who were willing to participate and had given written consent were included in the study.

Exclusion Criteria:

Postpartum women who had a prior history of any psychiatric illness, major general medical conditions and who were not willing to give written consent were excluded from the study.

Materials:

A semi-structured proforma for socio demographic data, Edinburg Postnatal Depression Scale (EPDS) for screening for depressive symptoms and international classification of diseases (ICD-10) for diagnosis were used.

Socio-demographic Profile: Age, religion, education, working status, economic status,

husband's occupation and family type; obstetric details: duration of married life, parity, any complications in the last and current pregnancy, pregnancy outcome: gender of the baby, mode and type of delivery. [14, 15]

Edinburg Postnatal Depression Scale (EPDS) was used to screen for depressive symptoms. The EPDS contains 10 items, and each item is rated on a four-point scale, giving a maximum score of 30. It is a self-report scale based on 1 week recall, designed to screen PND (post-natal depression) in the community. [10]

The study was authorized by the institute's research ethics committee. The nature and objective of the study were explained to the subjects in great detail. The confidentiality of the information was guaranteed, and informed consent was obtained.

Statistical Analysis:

Statistical analysis was done by using Statistical Package for the Social Sciences (SPSS) for Windows, Version 20. Chi-squared test was applied to analyze the data.

P-value of less than 0.05 was considered significant.

Results:

A total of 189 women were approached for postnatal follow-up. Only 170 people were enrolled in the study because 19 of them refused to offer written informed consent.

Every postpartum woman shared a home with husband. The majority of them (52.3 percent) were Hindus who lived in nuclear families (56.4%). The great majority of the participants in the study (75.8%) were unemployed. The majority of the husbands (71.1 %) worked as farmers. The majority of them (61.1%) had given birth through caesarean section. In 60.5 %, female babies were delivered.

The EPDS score of 48 study participants was >13, and PND was seen in 34% of them. The Chi-square test demonstrated a significant ($p < 0.05$) relationship between PND and socio-demographic (husband's occupation), obstetric (parity, pregnancy planning), and pregnancy outcome (preference for infant sex) factors.

Table 1: Key socio-demographic, obstetric and pregnancy outcome features of the study participants

	Number	%
Age		
<21 years	61	35.8
>21 years	109	64.1
Education		
Literate	117	68.8
Illiterate	53	31.1
Religion		
Hindu	89	52.3
Muslim	53	31.1
Christian	28	16.4
Type of Family		
Joint	74	43.5
Nuclear	96	56.4
Working status		
Employed	41	24.1

Unemployed	129	75.8
Husband's Occupation		
Farmer	121	71.1
Others	49	28.8
Socio Economic Status		
BPL	136	80.0
APL	34	20.0
Parity		
Multipara	55	32.3
Primi	115	67.6
Pregnancy Planning		
Planned	99	58.2
Unplanned	71	41.7
Mode of delivery		
Normal	66	38.8
Cesarean Section	104	61.1
Type of delivery		
Preterm	27	15.8
Full term	143	84.1
Gender of the newborn		
Male	103	60.5
Female	67	39.4
Complications in pregnancy		
Yes	38	22.3
No	132	77.6
Type of Hospital		
Govt	148	87.0
Private	22	12.9
Preference for sex of infant in last delivery		
Yes	73	42.9
No	97	57.0
Preferred Sex		
F	51	30
M	84	49.9
Number of women whose infant died after delivery	18	10.5
Number of women who experienced still birth	17	10.0

Table 2: Association of socio-demographic, obstetric and pregnancy outcome variables with risk of postnatal depression (n = 170)

Study Variable	EPDS Score				Total	P- value
	>13		<13			
	N	%	N	%		
Age						
<21 years	19	39.5	63	51.6	82	0.21
>21 years	29	60.4	59	48.3	88	
Education						
Literate	35	72.9	88	72.1	123	0.49
Illiterate	13	27.0	34	27.8	47	
Religion						
Hindu	21	43.75	70	57.3	91	0.97
Muslim	17	35.4	43	35.2	60	
Christian	10	20.8	9	7.3	19	
Type of Family						
Joint	12	25.0	74	60.6	86	0.67
Nuclear	36	75.0	48	39.3	84	
Working status						
Employed	9	18.7	33	27.0	44	0.51
Unemployed	39	81.2	89	72.9	128	
Husband's Occupation						
Farmer	43	89.5	52	42.6	95	0.001**
Others	5	10.4	70	57.3	75	
Socio Economic Status						
BPL	32	66.6	81	66.3	113	0.77
APL	16	33.3	41	33.6	57	
Parity						
Multipara	11	22.9	21	17.2	32	0.015**
Primi	37	77.0	101	82.7	139	
Pregnancy Planning						
Planned	6	12.5	96	78.6	102	0.003**
Unplanned	42	87.5	26	21.3	68	
Mode of delivery						
Normal	20	41.6	47	38.5	67	0.12
Cesarean Section	28	58.3	75	61.4	103	
Type of delivery						
Preterm	5	10.4	19	15.5	24	0.89
Full term	43	89.5	103	84.4	146	
Gender of the newborn						

Male	36	75	83	68.0	119	0.32
Female	12	25	39	31.9	51	
Complications in pregnancy						
Yes	9	18.7	21	17.2	30	0.76
No	39	81.2	101	82.7	140	
Type of Hospital						
Govt	25	52.0	99	81.1	124	0.66
Private	23	47.9	23	18.8	46	
Preference for sex of infant in last delivery						
Yes	10	20.8	36	29.5	46	0.11
No	38	79.1	86	70.4	124	
Preferred Sex						
F	28	58.3	20	16.39	48	0.25
M	7	14.5	62	50.8	69	
Number of women whose infant died after delivery	6	12.5	21	17.2	27	0.68
Number of women who experienced still birth	7	14.5	19	0 15.5	26	

**Significant, p value <0.005

Discussion:

Pregnancy and childbirth are distinctive life events which are not comparable to natural process of the body since the social and cultural contexts are central to the subjective and collective experiences of women. [16] In regard to the association between PPD and the studied risk factors, history of previous depression, difficult life events interval, and the attitude towards pregnancy were statistically significantly associated with PPD. Results of the recent study had shown that PPD rates were higher in women who were previously depressed or experienced stressful life events, which is consistent with that of Alasoom and Koura [5]

Maryam and colleagues in their study conducted in postnatal mother's, concluded that factors such as mother age, birth, gender, and abortion had no significant relationship with PND.[17] These findings are comparable to ours, since we found no link between PND and age, gender of existing children, or a history of abortions and miscarriages.

The current study found a link between PND and pregnancy planning, with women who had unplanned pregnancies being more unhappy than those who had planned for a baby. Previous research found similar results, such as unintended and unwanted pregnancies, surgical procedures, and difficult childbirth. [18, 19]

In this study, the husband's occupation had a substantial relationship with PND. The majority of them worked as farmers. This data suggests that the financial stress experienced by farmers' families may have contributed to the development of PND in postpartum women. In our study, the type of family and the woman's occupation had no significant relationship with PND.

Present study showed that prim parous women were more depressed than multiparous mothers and the association came to be statistically significant with p value (<0.05), First pregnancies may cause greater psychosocial stress, but other biological factors may also play a role.[20]

Conclusion:

Prevalence of PND among postnatal women was 34 % in the present study. Unplanned pregnancies, husband's occupation, parity of mother, preference for the sex of infant were associated with high risk of PND. Screening for PND should be a standard element of postpartum care. Early detection is beneficial to the health of both the kid and the mother, as well as good bonding. Early detection and reduction of handicap can be achieved by educating gynaecologists and patient attending about the signs of PND. More study is needed on the best ways to prevent, detect, and treat postpartum depression, as well as research on the effects of postpartum depression on the mother and child in various ethnic and socioeconomic groups.

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