Postpartum Depression and Risk Factors among Females

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Abstract

Background: *Postpartum depression (PPD) is a major depression with a postpartum onset. Various reasons, such as lack of support from the husband or the family, type of family, sex of the baby, past experiences, and many more, can lead to the onset of postpartum depression in a female. Aim: The aim of the present study was to assess postpartum depression and its possible risk factors among females.*

Materials and Methods: *The sample consisted of 100 postpartum females. The sample was selected by purposive sampling method from different nursing homes in Patna. Women with age ranging from 20 to 45 years were recruited as the sample of the study. After obtaining an informed consent, details of socio-demographic variables and risk factor related variables were gathered on interview with the postpartum females and postpartum depression was assessed using Edinburgh Postnatal Depression Scale.*

Result and Conclusion: *The result revealed that 58% of the females were suffering from postpartum depression. Possible risk factors identified in the study were mode of delivery, breast feeding problems, sleep disturbances, appetite disturbances, and mood swings during pregnancy. Age during first pregnancy was significantly negatively correlated with postpartum depression score.*

Keywords: *Postpartum depression, risk factors, female.*

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Introduction

Postpartum depression is an important public health concern, 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 (Beck, 2006).

Postpartum Depression (PPD) can be defined as a depressive disorder which occurs within 4 weeks' postpartum, although a time frame of 3 months after birth also has been suggested for defining PPD (Elliott &Leverton, 2000). About one in every seven new mothers is affected by PPD (Wisner, 2006), resulting in an overall prevalence rate of 13% (O'Hara & Swain, 1996).

The prevalence of postpartum depression varies from 1.9% to 82.1% in developing countries and from 5.2% to 74.0% in developed countries using self-reported questionnaire.The prevalence of postpartum depression was found to be 31.4% (Lakshmi et al., 2016).Prevalence of PPD was found to be 26.97%. Among the risk factors, advanced age, low socio-economic condition, minority community, fetal complications and vaginal delivery were found to be the most common (Khan and Basu, 2016).

Schmied et al. (2013) reported that mothers' past history of depression or existing mental disorders were associated with an increased risk of postpartum depression. Prior researchers have also found that lower maternal education level and poor family economic status were related to a higher prevalence of postpartum depression.

A cross sectional study was conducted by Kruthika et al.(2017) and reported that the

prevalence of Post-natal depression was 41 (13.6%). Factors like age, literacy status, socio economic status, gravidity, sex of new born, mode of delivery and unplanned pregnancy were significantly associated with the prevalence of postnatal depression.

One hundred and eighty women were selected through consecutive sampling. The Edinburg Postnatal Depression Scale (EPDS) was administered to assess postnatal depression. Result showed that prevalence of probable depression was found to be 18%. Risk factors found to be significantly associated with postnatal depression were high risk pregnancy, being unhappy with in-laws, low income of the family, mood swings and low mood during pregnancy (Suguna et al., 2015).

A cross sectional study was done at Sri ManakulaVinayagar medical college and hospital, Pondicherry, India. Edinburgh Postnatal Depression Scale (EPDS) was used to detect postnatal depression. Type of marriage, recent stressful life event, addiction in husband, past history of psychiatric illness, order of pregnancy were significantly associated with PPD. In contrast to usual belief of parent's preference to male child, the study results showed most of them preferred female child (Poomalar and Bupathy, 2014).

The prevalence rate of postpartum depression among 200 Gujarati women was 12.5%. Women who delivered a girl child were observed to have higher chances of getting PPD. Women having past history of miscarriage, women feeling tense during pregnancy, women who could not confide in partner, and absence of someone other than mother and partner in whom the woman could confide were found to be the strongest predictors for developing postpartum depression (Desai et al., 2012). A survey revealed that one-third of women scoring within a depressive range at eight months postpartum were still depressed 12-18 months later, but only 15% sought help or were referred to a mental health professional (Lumley, 2005).In another study of 214 women, 86 reported high levels of depressive symptoms (40.2%), but only 25 (11.7%) were actually diagnosed as being depressed (Hendrick, 2003).

In the Asian context, several important prevalence studies have been conducted. In Japan, of 70 Japanese mothers who were assessed by psychiatrists, Ueda et al. (2006) found that 27% mothers at 12 months postpartum were diagnosed as having experienced a new onset of depression. In Taiwan, Wang et al. (2003) conducted a study with 315 mothers six weeks post-delivery and found that about 31 and 12.9% mothers had experienced mild-to-moderate and moderate-to-severe depression, respectively. In a recent study including 2,072 postpartum women in Malaysia, Yusuff et al. (2015) reported that 14.3% of mothers were categorized as having depression within the first 6 months postpartum. A study done in Tianjin, China indicated that the prevalence of postpartum depression was 10.2% among 463 mothers 35–60 days post-delivery (Zhang et al., 2001).

Methods

Aim: The aim of the present was to assess postpartum depression and its possible risk factors among females

Objectives of the study:

- To assess postpartum depression among females.
- To assess the possible risk factors of postpartum depression.

Participants: The sample consisted of 100 postpartum females. The sample was selected by purposive sampling method from different nursing homes in Patna. Women with age ranging from 20 to 45 years were recruited as the sample of the study. Women suffering from intellectual dysfunctions, women suffering from other psychiatric disorders, and women suffering from neurological disorders were excluded from the study. After obtaining an informed consent, details of socio-demographic variables and risk factor related variables were gathered on interview with the

postpartum females and postpartum depression was assessed using Edinburgh Postnatal Depression Scale.

Tools:

Socio-Demographic data sheet

A Socio-Demographic data sheetand risk factor related variables were especially designed for the present study like age, education, occupation, residence, income, order of pregnancy, miscarriage, past history of any mental illness or substance abuse, nature of delivery, term of pregnancy, sex of the child, support from husband and in-laws.

Edinburgh Postnatal Depression Scale(Cox et al., 1987): The 10-question Edinburgh Postnatal Depression Scale is a valuable and efficient way of identifying patients at risk for "perinatal" depression. The psychometric properties of the EPDS in primary health care were: 86% sensitivity, 78% specificity and 73% positive predictive value.

Procedure of Data Collection

The researcher approached the concerned heads of the nursing homes and requested their permission to gain access to postpartum mothers. After obtaining an informed consent, details of socio-demographic variables and risk factor related variables were gathered on interview with the postpartum females and postpartum depression was assessed using Edinburgh Postnatal Depression Scale.

Results-statistical analysis

The collected data was analyzed by the statistical software Statistical Package for Social Sciences (SPSS) version 22.0 (for Windows). In descriptive statistics, mean and standard deviation were calculated for continuous variables while number and percentage were calculated for the discrete or categorical variables. To see the association among socio-demographic and clinical variables with depression, Pearson Correlation-Coefficient was used.

Results

Table 1: Demographic Characteristics of the Sample (N= 100)

Variables	Mean ± SD
Age (in years)	25.85 ± 3.57
Age during First Pregnancy (in years)	22.82 ± 3.21

The mean age of the sample was found to be 25.85 ± 3.57 years and mean age during first pregnancy was found to be 22.82 ± 3.21 years.

Table 2: Demographic and Clinical Characteristics of the Sample (N= 100)

Variables	n (%)	
Education	Below 10th	26 (26%)
	Above 10th	74 (74%)
Residence	Urban	61 (61%)
	Rural	39 (39%)

Types of family	Nuclear	55 (55%)
	Joint	45 (45%)
Occupation	Employed	18 (18%)
	Unemployed	82 (82%)
Relationship with In-laws	Satisfied	85 (85%)
	Dissatisfied	15 (15%)
Substance addiction in husband	Yes	6 (6%)
	No	94 (94%)
Sex of baby	Male	61 (61%)
	Female	39 (39%)
Breast feeding problems	Yes	46 (46%)
	No	54 (54%)
Sleep disturbances	Yes	48 (48%)
	No	52 (52%)
Appetite disturbances	Yes	23 (23%)
	No	77 (77%)
Gender preference	Yes	10 (10%)
	No	90 (90%)
Current pregnancy	Wanted	90 (90%)
	Unwanted	10 (10%)
High risk pregnancy	Yes	13 (13%)
	No	87 (87%)
Mood swing during pregnancy	Yes	94 (94%)
	No	6 (6%)

Out of 100 sample, 26% had received education below 10th standard and 74% had received education above 10th standard, 61%belonged to urban areas and 39% belonged to rural areas, 55% belonged to nuclear families and 45%belonged to joint families, 18% were employed and 82% were unemployed, 15% had an unhealthy relationship with the in-laws, 6% reported substance addiction in husband, 61% had a male child and 39% had a female child, 46% had breast feeding problems, 48% had sleep disturbances, 23% had appetite disturbances, 10% had gender preference, 10% had unwanted pregnancy, 13% had high risk pregnancy, 94% had mood swings during

pregnancy, 69% had normal delivery and 31% had caesarean delivery, 9% had complications during delivery, and 8% reported having past history of miscarriage.

Table 3:Clinical characteristics of females screened with postpartum depression (N = 58)

Variables		n (%)
Type of Family	Nuclear	34 (58.6%)
	Joint	24 (41.4%)
Sex of the Baby	Male	36 (62.1%)
	Female	22 (37.9%)
Mode of Delivery	Normal	41 (70.7%)
	Caesarean	17 (29.3%)
Being Unhappy with In-Laws		9 (15.5%)
Breast Feeding Problems		29 (50%)
Sleep Disturbances		30 (51.7%)
Appetite Disturbances		14 (24.1%)
Gender Preference		9 (15.5%)
Unwanted Pregnancy		9 (15.5%)
High Risk Pregnancy		12 (20.7%)
Mood Swings during Pregnancy		55 (94.8%)

Out of 58 sample 34 (58. 6%) belonged to nuclear families and 24 (41.4%) belonged to joint families, 36 (62.1%) had a male child and 22 (37.9%) had a female child, 41 (70.7%) had normal delivery and 17 (29.3%) had caesarean delivery, 9 (15.5%) were unhappy with their in-laws, 29 (50%) had breast feeding problems, 30 (51.7%) had sleep disturbances, 14 (24.1%) had appetite disturbances, 9 (15.5%) had a gender preference, 9 (15.5%) had an unwanted pregnancy, 12 (20.7%) had high risk pregnancy and 55 (94.8%) had mood swings during pregnancy.

Table 4: Distribution of sample according to cut off score of depression (13) and Mean and SD of EPDS Scores (N= 100)

EPDS Score	n (%)
Below 13	42 (42%)
Above 13	58 (58%)
	Mean ± SD
EPDS Total Score	14.79 ± 5.52

Forty two (42%) sample scored below 13, and 58 (58%) scored above 13. The mean of depression score was found to be 14.79 ± 5.52.

Table No.5: Correlation between EPDS score and Demographic Variables

Variables	EPDS Score
Age	-.068
Age during First Pregnancy	**-.366****

** Correlation is significant at the <.01 level

Age during first pregnancy was significantly negatively correlated with postpartum depression score (r= -.366, p= <.01).

Discussion

The present study indicated that 58% of the females had postpartum depression. Finding substantiates prior research done by Hendrick (2003), Lumley (2005), Lakshmi et al. (2016). Lumley (2005) conducted a survey which revealed that one-third of women scored within a depressive range. Research done by Lakshmi et al. (2016) revealed that 31.4% of the females were suffering with postpartum depression.

Various risk factors can lead to postpartum depression. The possible risk factors identified among the females screened with postpartum depression were type of family, marriage, sex of the baby, mode of delivery, being unhappy with in-laws, breast feeding problems, sleep disturbances, appetite disturbances, gender preference, unwanted pregnancy, high risk pregnancy, mood swings during pregnancy, complications during delivery. Almost similar findings were reported with other studies (Kruthika et al., 2017; Suguna et al., 2015).

In the present study 50% participants reported having breast feeding problems. The present finding is consistent with Rehman and Kazmi (2016). 51.7% reported having sleep disturbances and 24.1% had appetite disturbances. The present finding is supported by a prior research by Lakshmi et al. (2016) in which sleep disturbances, work and activity, changes in the appetite and general somatic symptoms were observed to be more common among the postpartum women with depression. 15.5% of the females reported having a gender preference. This finding is in line with the research by Poomalar and Bupathy (2014). In contrast to usual belief of parent's preference to male child, the study results showed most of them preferred female child. 20.7% of the females had a high-risk pregnancy while 94.8% reported having mood swings during pregnancy. The finding is substantiated by a prior research done by Suguna et al. (2015).

Significant negative correlation was found between age during first pregnancy and postpartum depression (r= -.366, p= <.01), indicating that first order of pregnancy at a young age can lead to postpartum depression. The experience of giving birth and caring for an infant can often be overwhelming for a young mother. First pregnancy at a young age often proves challenging to the mother because she might be immature and unskilled in caring and providing for a family. This may cause their perception towards their current situation as negative and overwhelming, and they may tend to be preoccupied with a sense of guilt and worthlessness. Hence, these feelings might lead to depression in young mothers.

Conclusion

In the present study 58% of the females participants had postpartum depression. Significant negative correlation was found between age during first pregnancy and postpartum depression.Possible risk factors identified in the present study for postpartum

depression were type of family, type of marriage, sex of the baby, mode of delivery, being unhappy with in-laws, breast feeding problems, sleeping disturbances, appetite disturbances, high risk pregnancy, mood swings during pregnancy. Limitations of the present study include sample size was small, additional psycho diagnostic tools can be administered for diagnostic confirmation of postpartum depression. Moreover, further studies are recommended to find out the factors leading to postpartum depression.There are a few future implications of the study.Early detection of and treatment for postpartum depression could benefit not only the mother's mental health and social functioning, but also the infant's physical and psychological health, and the family environment.Continuity of professional care from pregnancy to the postnatal period may also assist mothers who are reluctant to disclose that they may be experiencing postpartum depression.

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