# A Study on Postnatal Depression: More Prevalent and Less Addressed Issue

Dr. Jyoti Sowmya<sup>1</sup>, Dr. Shreya<sup>2</sup>

Abstract: <u>Introduction</u>: Postnatal depression (PND) is a public health problem exhibiting the strongest link to adverse child outcomes and also maternal morbidity. Edinburgh Postnatal Depression Scale (EPDS) is considered well accepted screening tool for postpartum depression (PPD). <u>Objectives</u>: To determine the prevalence of postnatal depression and to validate the EPDS as a screening tool for postpartum depression in tertiary care hospital, Bangalore, Karnataka. <u>Methodology</u>: A cross sectional analytical study conducted in a Tertiary Care Hospital in Bangalore, Karnataka among 150 women between 2 to 6 weeks of postpartum period. The Edinburgh Postnatal Depression Scale (EPDS) is used as screening tool identifying patients at risk for postnatal depression. Data is collected by interview method and analyzed using SPSS. Possible depression is suggested by a score of 10 or greater; while values equal to 13 or more are invariably associated with depression. <u>Results</u>: This study revealed postnatal depression to be 23 (15.2%) among the study participants according to EPDS score >10. Statistical Analysis revealed significant association of socio demographic factors like type of family, obstetric factors like mode of delivery, type of delivery, complications in pregnancy and other factors like low mood during pregnancy. <u>Conclusion</u> This study we found the prevalence of post partum depression to be 15.2%. Development of a routine screening program to screen all post natal women using a validated screening tool can be really helpful in timely interventions when needed.

Keywords: Arterial Pressure, Uterine Artery Doppler, Pre-Eclampsia, Pregnancy

# 1. Introduction

- Postpartum depression (PPD) is a term applied to describe depressive symptoms occurring during the first year of the postpartum period and is characterized by low mood, loss of enjoyment, reduced energy, and activity, marked functional impairment, reduced self esteem, ideas or acts of self harm or suicide [1, 2, 3].
- The women's change into motherhood is a difficult period that involves significant changes in the psychological, social and physiological aspects, and considered increase vulnerability for the development of mental illness [4].
- Postpartum depression (PPD) is a mood disorder that affects approximately 10–15% of adult mothers yearly with depressive symptoms lasting more than 6 months among 25–50% of those affected [5].
- Postpartum depression often occurs within a few months to a year after birth. Causes of PPD may be physiological, situational, or multifactorial [6, 7].
- Major predisposing factors for developing PPD are social in nature usually stressful life events, childcare stress, and prenatal anxiety appears to have predictive value for PPD. In addition, a history of the previous episode of PPD, marital conflict, and single parenthood are also predictive [8, 9].
- This cross sectional study was done to determine the prevalence of postnatal depression and the risk factors associated with it in tertiary care hospital, Bangalore, Karnataka.

## **Aims and Objectives**

- To determine the prevalence of postnatal depression in tertiary care hospital, Bangalore, Karnataka.
- To determine the risk factors associated with postnatal depression

# 2. Methodology

- Study Design: Cross sectional study
- Study Duration: 18 months (January 2021 to June 2022)

- Study Area: Raja Rajeswari Medical College and Research Hospital, Bangalore.
- Study Participants: Patients of age 18 and above undergoing delivery at RajaRajeswari Medical College and Hospital.

## **Inclusion Criteria**

Patients of age 18 and above, speaking and reading Kannada and / or English who are delivered in Rajarajeswari Medical College and Hospital, Bengaluru.

## **Exclusion Criteria**

- 1) Mothers who had psychiatric disorder.
- 2) Mothers on antidepressant drugs.
- 3) Psychiatric admission and psychiatric contacts.
- 4) Congenital anomalies of fetus.
- 5) Fetal death in uterus.
- 6) Mothers of babies admitted in NICU.

## Method of Collection of Data:

- Patients of age 18 and above undergoing delivery at RajaRajeswari Medical College and Research Hospital, Bangalore were included in the study. Clearance from the institutional ethical committee was taken before starting the study.
- Study participants were included in the study by Purposive Sampling technique. Written informed consent was taken from the study participants before collecting the data.
- A pre tested, semi structured questionnaire was used to collect information on socio - demographic variables and obstetric history by interview method. Edinburgh postnatal depression scale questionnaire was used to assess post - partum depression on postnatal day two.

## **Edinburgh Postnatal Depression Scale (EPDS)**

EPDS is a self - rating questionnaire that reflects the subject's feelings over the past 7 days. It includes ten questions, with each item scored on a four - point scale from 0 to 3, depending on the severity or duration of each symptom. Total scores range from 0 - 30 and completion takes around 5 minutes. Cut

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- off values 13 or higher are used to identify women who might have depression [10].

# 3. Statistical Analysis

The data was collected and compiled in MS Excel. Descriptive statistics has been used to present the data. To analyse the data SPSS (Version 26.0) was used. Significance level was fixed as 5% ( $\alpha = 0.05$ . Qualitative variables are expressed as frequency and percentages and Quantitative variables are expressed as Mean and Standard Deviation. Chi - square test was used to compare the proportion between categorical variables.

Table 1: Patient Characteristics

18-20 years

21-25 years

26- 30 years

31-35 years

36-40 years

Rural

Urban

Frequency

13

66

59

10

2

78

72

Post-natal depression

Percentage

8.7

44.0

39.3

6.7

1.3

52.0

48.0

Patient Characteristics

# 4. Results

Age

Residence

Status

Occupation

	11 1/1	105	50.0
	Home Maker	105	/0.0
Literacy	Primary Education	11	7.3
	High School	66	44.0
	Degree	64	42.7
	PG	9	6
Family Structure	Joint	104	69.3
	Nuclear	46	30.7
Gravida	Primi	55	36.7
	Multi	95	63.3
Mode of	Vaginal Delivery	87	58.0
Delivery	LSCS	63	42.0
Term/ Pre term	Pre term	19	12.7
	Term	131	87.3
Complications	Yes	110	73.3
	No	40	26.7



Figure 1: Post- natal Depression





No post-natal depression

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# International Journal of Science and Research (IJSR) ISSN: 2319-7064 SJIF (2022): 7.942











Figure 5: Association of post- natal Depression with complications

# 5. Discussion

- Biological factors and social factors create intertwined rings that each makes women prone to postpartum depression by affecting each other.
- According to the findings of this study, many biological and environmental factors, such as lifestyle related

factors, are involved in the incidence or prevention of postpartum depression through direct and indirect impact on the level of serotonin in the brain and its function.

• Furthermore, many environmental factors such as socioeconomic factors cause crisis conditions and postpartum depression through influencing the mental health during pregnancy.

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## International Journal of Science and Research (IJSR) ISSN: 2319-7064 SJIF (2022): 7.942

• Therefore, postpartum depression prevention programs need to focus on individuals interpersonal relationships to reduce domestic violence and increase social protection in addition to modify the women's lifestyle and increase their ability to cope with the crisis conditions.

# 6. Conclusion

- Prevalence of PPD has been difficult to determine because of several factors.
- Postpartum depression may affect socialization behavior in children and the mother, and it may lead to thoughts of failure leading to deeper depression.
- This sparkes light to health professionals to pay attention to the prevention and treatment of postpartum depression.
- The interventions for PPD include pharmacologic interventions, supportive interpersonal and cognitive therapy, psychosocial support through support groups, and complementary therapies.

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