

# FREQUENCY OF POSTPARTUM DEPRESSION IN WOMEN ATTENDING FAUJI FOUNDATION HOSPITAL PESHAWAR

Muhammad Muslim Khan<sup>1</sup>, Abdul Hanan<sup>1</sup>, Muhammad Tahir<sup>2</sup>, Fatima<sup>3</sup>, M. Shafique<sup>2</sup>, Syed Shahmeer Raza<sup>3</sup>

<sup>1</sup>Department of Psychiatry, Fauji Foundation Hospital, Peshawar - Pakistan

<sup>2</sup>Department of Medicine, Fauji Foundation Hospital, Peshawar - Pakistan

<sup>3</sup>Department of Gynae, Khyber Teaching Hospital, Peshawar - Pakistan

## ABSTRACT

**Objective:** To evaluate the frequency of Postpartum Depression in patients attending Postnatal Clinic in Fauji Foundation Hospital, Peshawar.

**Material & Methods:** This descriptive, cross-sectional study was conducted in Gynaecology, Psychiatry and Medical OPD of Fauji Foundation Hospital from January 2011 to June 2012. A sample of 139 women attending the postnatal clinic within 6 weeks of their delivery were included using consecutive, non-probability sampling and screened through the Urdu version of Edinburgh Postnatal Depression Scale (EPDS) with a cutoff score of 11. Data was analyzed using SPSS version 16.

**Results:** Out of 139 participants, 51 (36.69%) were found to be suffering from Postnatal Depression. Of the total participants, 88 (63.3%) were from age group 18-35 years. We found that class 8 students 18 (35.3%) is showing the maximum EPDS score. 32 (62.7%) participants having >11 score have delivered their babies through spontaneous vaginal delivery and 35 (68.6%) participants with high EPDS score shows no medical complication during pregnancy.

**Conclusion:** Postnatal period is a period of vulnerability for women to develop postpartum psychiatric illnesses especially postpartum depression and psychosis; therefore the healthcare providers must pay immediate attention to this issue and devise measures for effective screening and management of these cases.

**Key Words:** Postnatal, depression, Edinburgh, Scale, Puerperium.

## INTRODUCTION

From the psychiatric perspective, susceptibility to psychological disturbances increases at the time of postpartum period.<sup>1</sup> This can be illustrated as postpartum blues, a very common situation characterized by transient and minor depressive symptoms<sup>2</sup>; as postnatal depression, a much more severe disorder defined by the occurrence of a major depressive episode in the peripartum<sup>3</sup>; and as postpartum psychosis, an illness characterized by delusions, hallucinations, thought disorder and accompanying behavioral disturbance<sup>4</sup>.

In Western countries, the prevalence of postnatal depression is predicted to be between 10% and 15%<sup>5</sup>. However, there is rising evidence that this condition is much more common in the developing countries, including Pakistan<sup>6,7</sup>. The reasons identified being eco-

nomical adversity in the form of poverty, higher number of stressful life events, and lack of proper social support<sup>8</sup>.

Patients suffering from postnatal depression can have a high degree of functional impairment and consequently have difficulty in properly looking after themselves, as well as their neonates. The significance of continuing research on postpartum depression is highlighted by the increasing incidence of postpartum depression and some longitudinal studies that have reported long-term negative effects of postpartum depression on children's health and their social, emotional, cognitive and physical development<sup>9</sup>.

Maternal psychological distress has been widely reported because it carries the risk of progression in the future to more severe symptoms and of having a negative effect on mother-infant interactions, as well as children's health care and behavioral development. A research was conducted with the objective of estimating the prevalence of anxiety and depressive symptoms among child-rearing women in Japan at two time-points after childbirth. A self-administered questionnaire was delivered on two occasions to 2,657 women who had given birth in 2004: first when

---

### Address for Correspondence:

**Dr. Muhammad Tahir**

House Officer

Fauji Foundation Hospital, Peshawar - Pakistan

Cell: 0345-9671131

Email: islamian.tahir@gmail.com

their infants were 3-4 months old and then again when their infants were 9-10 months old. The questionnaire included the Hospital Anxiety and Depression Scale (HADS; Japanese version) to estimate the level of maternal psychological distress. The study found that the total percentage of women with anxiety symptoms as assessed by a HADS score of 8+ was 26.2 % at 3-4 months of age, and 26.1% at 9-10 months. Among the women with-out anxiety symptoms at 3-4 months, 11.6% showed anxiety symptoms at 9-10 months. The total percentage of depressive symptoms was 19.0% at 3-4 months, and 24.0% at 9-10 months. Among the women without depressive symptoms at 3-4 months, 14.0% showed depressive symptoms at 9-10 months<sup>10</sup>.

There is some literature available on this subject from Pakistan which sheds light on this issue. Recently a study was conducted at Department of Obstetrics and Gynecology, Benazir Bhutto Hospital, Rawalpindi, with the aim to determine the frequency and associated soci-demographic, obstetric and medical factors for postnatal depression in an outpatient sample. A total of 51 participants, or 33.1% of a sample of 154 women suffered from postnatal depression, the majority of who were either moderately or severely depressed<sup>7</sup>.

Keeping this background in mind the current study was conducted in Gynaecology, Psychiatry and Medical OPD of Fauji Foundation Hospital, Peshawar, to determine the frequency of postnatal depression attending the FFH OPDs. The data presented in this study can be used for planning and developing treatment services for patients with postnatal depression at the local level. This is the essential first step in improving the well being of new mothers and their infants in the community. It is also hoped that this study will stimulate other health care personnel to do their own research in this area.

## **MATERIAL AND METHODS**

The study was conducted in Gynaecology, Psychiatry and Medical OPDs from January 2011 to June 2012. One hundred and thirty-nine women were selected by Consecutive, non-probability sampling technique. (As calculated by WHO sample size calculator). All women attending the Postnatal Clinic within six weeks of delivery were suitable to enter into the study, provided they gave informed consent. Patients with co-morbid medical illnesses with previous history of affective disorders, with family history of affective disorders, with history of medicines (Propranolol, Steroids) intake were excluded from the study.

Informed written consent was taken from the participants after approval from ethical committee. The

proforma was translated into Urdu version of EPDS (Edinburgh Postnatal Depression Scale) (thus minimizing information bias) to screen the participants for postnatal depression. Scores above 11 were considered significant. Confidentiality of the participants' identity and personal information was maintained throughout the study.

An eighteen-item proforma was developed and information was obtained on demographic and obstetrical variables. Demographic data included the following items: name, age, education, place of residence, family income and occupational status of the patient, husband's occupation, number of years married, number of children, and whether the patient lived in single or extended family. These items provided detailed information about the socio-demographic profile of the study participants. Obstetrical status of the patients was determined under the following headings: number of previous pregnancies, serious medical illnesses during current pregnancy and obstetrical complications during current pregnancy, method of delivery, complications during delivery, and postpartum complications. Psychiatric history was obtained by asking about family history of psychiatric illness and past history of psychiatric illness.

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

This is a ten items self-rating questionnaire. Depending on the response given by the subject the score on each item can vary from 0-3. The total score on EPDS ranges from 0-30. Most studies report a cut-off score of 12 to screen patients for postnatal depression. Items 1, 2, 8 and 9 are designed to diagnose depressed mood. Item 1 assesses whether the patient is suffering from a general state of gloominess; item 2 is about the lack of ability to feel pleasure; item 3 enquires about self-blame and guilt; item 4 is about the psychic component of anxiety as manifested by excessive worry; item 5 enquires about feelings of panic; item 6 is about daily functioning; item 7 assesses the quality of sleep; items 8 and 9 assess depressed mood; and the last item is about suicidal ideation. On an average it takes a patient five to ten minutes to complete the questionnaire. Because of ease of administration as well as good validity and reliability this instrument is widely used in research studies. In many countries of the world health care workers are specifically trained in administering EPDS to new mothers to screen for postnatal depression.

Data was entered and analyzed using Statistical Package for Social Sciences, SPSS version 16. For the continuous variables i.e., age of patients, EPDS score, monthly family income, Mean  $\pm$  S.D was calculated. For the categorical variables, i.e., educational status, parity,

**Table 1: Frequency of Postnatal Depression**

Score on EPDS*	No. of patients & percentage
11 or more	51(36.69%)
Less than 11	88(63.31%)
Total	139(100%)

\*Score on EPDS  $\geq$  11 depressed score on EPDS < 11 not depressed

**Table 2: Level of Education**

Score on EPDS	Level of education	No. of patients & percentage
11 or above	Uneducated	11 (21.6%)
	Class 8	18 (35.3%)
	Matric	15 (29.4%)
	Class 12	6 (11.8%)
	Bachelors	1(2.0%)
	Total	51 (100%)
Less than 11	Uneducated	15 (17%)
	Class 8	30 (34%)
	Matric	33 (37.5%)
	Class 12	4(4.5%)
	Bachelors	4(4.5%)
	Masters	2(2.3%)
	Total	88 (100%)

**Table 3: Method of Delivery**

Score on EPDS	Method of delivery	No. of patients & percentage
11 or above	SVD a	32(62.7%)
	C/s b	19(37.3%)
	Total	51(100.0%)
Less than 11	SVD a	44(50%)
	C/s b	44(50%)
	Total	103(100.0%)

a- Spontaneous Vaginal Delivery b- Caesarean section

**Table 4: Medical Complications**

Score on EPDS	Medical complications	No. of patients & percentage
11 or above	Yes	16(31.4%)
	No	35(68.6%)
	Total	51(100%)
Less than 11	Yes	33(37.5%)
	No	55(62.5%)
	Total	88(100%)

mode of delivery, medical illness during pregnancy and postnatal depression, frequencies and percentages were presented.

## RESULTS

Table 1 shows 51 (36.69%) of the women were found to be suffering from Postnatal Depression on the basis of their scores on EPDS. Table 2, it clearly shows that class 8 students 18 (35.3%) are showing the maximum EPDS score while Matric Students 33 (37.5%) have less than cut off value. Maximum number 103 (74.1%) of participants having monthly family income ranges between 3000-30,000 are having low score on EPDS. Table 3 shows 32 (62.7%) participants having >11 score have delivered their babies through spontaneous vaginal delivery. Table 4 shows participants 35 (68.6%) with High EPDS score shows no medical complication during pregnancy.

## DISCUSSION

The study revealed that out of 139 patients who completed the study, on the basis of score on EPDS score, 36.69% of the sample was found to be suffering from postnatal depression. This result suggests that postpartum depression is a very common condition in our setting; however unfortunately, because of lack of necessary health checks it often goes undetected and untreated. Our result is comparable to finding of other research papers<sup>7,11,12</sup>. The authors of the study observed that this rate was much higher as compared to western countries and attributed it to socio-economic adversity faced by women in Pakistan.

Our study clearly shows that participant delivering their babies through spontaneous vaginal delivery having EPDS score > 11 were 32 (62.7%), which is comparable with study of Philip M Boyce<sup>13</sup>.

## CONCLUSION

The healthcare providers must pay immediate attention to the postpartum depression and devise measures for effective screening and management of these cases.

## SUGGESTIONS

We suggest that women attending the postnatal clinics are assessed according to the EPDS scale for early diagnosis and proper management of postpartum depression.

## LIMITATIONS

- Sample size of the study was small so the results could not be generalized to the whole population.
- The study did not probe into the various factors e.g., socioeconomic factors that could be leading to the increased frequency of postnatal depression particularly in our population.

- The severity of postnatal depression was not assessed which serves as a major limitation.

## ACKNOWLEDGMENTS

The authors would like to acknowledge the efforts of Dr. Mohammad Tahir during the process of data abstraction, data analysis and manuscript writing. Efforts of Dr. Sana and Staff Zahida during data collection process are also highly appreciated. Authors would also like to acknowledge the support of Hospital Administration and MIS Department of Fauji Foundation Hospital Peshawar.

## REFERENCES

1. Halbreich U. Postpartum disorders: multiple interacting underlying mechanisms and risk factors. *Journal of Affective Disorders*, 2005; 88(1): 1-7.
2. Beck CT. Postpartum Depression: It isn't just the blues. *The American Journal of Nursing*, 2006; 106(5): 40-50.
3. Kosinska-Kaczynska K, Horosz E, Wielgos M, Szymusik I. [Affective disorders in the first week after the delivery: prevalence and risk factors]. *Ginekologia polska*, 2008; 79(3): 182-85.
4. Sit D, Rothschild AJ, Wisner KL. A review of postpartum psychosis. *Journal of women's health*, 2006; 15(4): 352-68.
5. Perfetti J, Clark R, Fillmore C-M. Postpartum depression: identification, screening, and treatment. *WMJ-MADISON*, 2004; 103: 56-63.
6. Husain N, Bevc I, Husain M, Chaudhry I, Atif N, Rahman A. Prevalence and social correlates of postnatal depression in a low income country. *Archives of women's mental health*, 2006; 9(4): 197-202.
7. Muneer A, Minhas FA, Tamiz-ud-Din Nizami A, Muejeeb F, Usmani AT. Frequency and associated factors for postnatal depression. *J Coll Physicians Surg Pak*, 2009; 19(4): 236-39.
8. Rahman A, Iqbal Z, Harrington R. Life events, social support and depression in childbirth: perspectives from a rural community in the developing world. *Psychological medicine*, 2003; 33(07): 1161-67.
9. Field T. Postpartum depression effects on early interactions, parenting, and safety practices: A review. *Infant Behavior and Development*, 2010; 33(1): 1-6.
10. Sato Y, Kato T, Kakee N. A six-month follow-up study of maternal anxiety and depressive symptoms among Japanese. *Journal of epidemiology*, 2008; 18(2): 84-87.
11. Hamirani M, Sultana A, Ibrahim Z, Sultana S. Humera: Post natal depression at a tertiary care hospital in Karachi. *Ann Abbasi Shaheed Hospital, Karachi Med Dent Coll*, 2004; 9(1): 517-20.
12. Ali NS, Ali BS, Azam IS. Post partum anxiety and depression in peri-urban communities of Karachi, Pakistan: a quasi-experimental study. *BMC Public Health*, 2009; 9(1): 384.
13. Boyce PM, Todd AL. Increased risk of postnatal depression after emergency. *Med J Aust*, 1992; 157: 172-74.

### AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under:

- Khan MM:** Concept and design, acquisition of data, final approval.  
**Hanan A:** Drafting of manuscript.  
**Tahir M:** Data analysis.  
**Fatima:** Critical review, drafting of manuscript and data analysis.  
**Shafiq M:** Critical review, acquisition of data.  
**Raza SS:** Typing, bibliography.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

**CONFLICT OF INTEREST:** Authors declare no conflict of interest

**GRANT SUPPORT AND FINANCIAL DISCLOSURE NIL**