Frequency of Postnatal Depression after Normal Vaginal Delivery in a Tertiary Care Hospital

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Abstract

Background: Postnatal depression (PND) is considered as important health problems in modern societies.Most of the women nation-wide have access to skilled birth attendants. Postpartum depression) is a neglected area of maternal health care in developing countries like Pakistan.

Objective: To determine frequency of postnatal depression after normal vaginal delivery in patients reporting to Lady Reading hospital, Peshawar

Methodology: This Descriptive Cross Sectional study was conducted in Department of Obs & Gynae, MTI-Lady Reading Hospital, and Peshawar from 22 June, 2021 to 22 Dec, 2021 Post-natal depression was assessed through Edinburgh postnatal depression scale (EPDS) with cut-off value of above 12 was labeled as positive for postnatal depression. Demographic like name, age, educational level, monthly income of family, number of children, and history still birth or miscarriages. Post-natal depression was assessed through Edinburgh postnatal depression scale (EPDS) with cut-off value of above 12 was labeled as positive for postnatal depression.

Results: As per frequencies and percentages for post-natal depression, 46 (15.2%) patients had post-natal depression after normal vaginal delivery. Mean age was 34.46+6.498 years. Mean parity was 3.80+1.484. 161 (53.3%) patients were recorded in 25-35 years age group while 141 (46.7%) patients were recorded in 36-50 years age group.

Conclusion: This study concluded that Post-Natal depression is prevalent amongst women having normal vaginal delivery without any risk factors as well.

Key words: Postnatal Depression, Normal Vaginal Delivery, Pregnancy

Introduction

Postnatal depression (PND) is acknowledged as a significant health issue in contemporary societies.[1] According to the Diagnostic and Statistical Manual of Mental Disorders, PND is defined as experiencing five or more of the following symptoms for at least two weeks: insomnia/hypersomnia, psychomotor agitation or retardation, fatigue, appetite changes, feelings of hopelessness or guilt, decreased concentration, and suicidality. These episodes typically commence within four weeks postpartum and may persist for up to one year.[2]

Identified risk factors include a poor marital relationship, prenatal depression, the child's illness, low socioeconomic status, low educational level, unwanted pregnancy, obesity, a history of postpartum depression, and physical symptoms.[3] Certain risk factors are specific to Eastern communities, such as the sex of the infant[4] and grand multiparity.[5]

Various interventions for PND exist, encompassing pharmacologic approaches, supportive interpersonal and cognitive therapy, psychosocial support through groups, and complementary therapies. Electroconvulsive therapy has demonstrated efficacy for severe cases of postpartum depression. In instances of severe postpartum depression, particularly in cases where there is a risk of suicide, inpatient hospitalization may be necessary.[6]

The Edinburgh Postnatal Depression Scale (EPDS) is a widely used tool for screening depression related to childbearing. This self-report instrument comprises ten items rated from 0 to 3, reflecting the patient's experiences over the past week. The EPDS has undergone extensive validation for use during pregnancy and the postpartum period.[7]

The rationale behind this study is the substandard state of

maternity care in our country. Despite the widespread availability of skilled birth attendants for women nationwide, postpartum depression remains a neglected aspect of maternal health care in developing countries like Pakistan. Recognizing and addressing postpartum depression is crucial due to its potentially severe consequences for both the mother and her children.

It was assessed through Edinburgh postnatal depression scale (EPDS) with cut-off value of above 12 was labeled as positive for postnatal depression.' [4] The scoring of EPDS was done according to Cox et al l[5]. In this method 10 questions were asked from each participants given below. Scoring was as follows; Questions 1, 2, & 4 (without an *) Are scored 0, 1, 2 or 3 with top box scored as 0 and the bottom box scored as 3, Questions 3, 5-10 (marked with an *) Are reverse scored, with the top box scored as a 3 and the bottom box scored as 0.The maximum score can be 30 and sore more 12 will show postnatal depression.

Material and Methods

This descriptive Cross Sectional study was conducted in department of Obstetrics & Gynaecology MTI-Lady Reading Hospital Peshawar from 22 June, 2021 to 22 Dec, 2022.Sample size was calculated by using WHO sample size calculator, total sample size was 302 by taking 14.7% for postnatal depression from a study while keeping 95% confidence interval and 4% interval. All patients in 6-10 weeks postpartum period after normal vaginal delivery with no co -morbids and no prior history of depression on gynae opd were included in the study while patients having instrumental vaginal deliveries, other co-morbids including past history of depression were excluded from the study. Approval of hospital ethical committee was taken. The patients fulfilling the inclusion and exclusion criteria was invited to take part in the study. The purpose, procedures, risk and benefits of the study was explained to them. An informed consent and their willingness to participate in the study were ensured. They were assured of confidentiality of the data collected from them. Data was collected through structured questionnaire. Demographic like name, age, educational level, monthly income of family, number of children, and history still birth or miscarriages. Post-natal depression was assessed through Edinburgh postnatal depression scale (EPDS) with cut-off value of above 12 was labeled as positive for postnatal depression. Biases and confounders were calculated through strictly following inclusion/exclusion criteria and stratification.

Data was entered and analyzed in SPSS for Windows (version 22.0). Mean and Standard deviation were calculated for numerical variables like age and number of children. Frequencies and percentages were calculated for categorical variables like positive postnatal depression, educational level, and monthly income of family, and history still birth or miscarriages. Frequency of postnatal depression was stratified among age groups, categories of number of children, educational level, and monthly income of family, and history still birth or miscarriages. P<0.05 was considered significant.

Results

Mean age was 34.46+6.498 years. Mean parity was 3.80+1.484. 161 (53.3%) patients were recorded in 25-35 years age group while 141 (46.7%) patients were recorded in 36-50 years age group. 75 (24.8%) patients were illiterate while 227 (75.2%) patients were literate. 77 (25.5%) patients had history of still births. 77 (25.5%) patients had history of miscarriages.181 (59.9%) patients had low family income; 52 (17.25%) patients had middle income of family while 69 (22.8%) patients high monthly family income. As per frequencies and percentages for post-natal depression,46 (15.2%) patients had post-natal depression after normal vaginal delivery. Postnatal depression after normal vaginal deliver was stratified with age, number of children, history of still births, history of miscarriages and monthly family income.

Table I: Frequencies and Percentages for Post Natal Depression after Normal Vaginal Delivery (n=302)

Post Natal Depression	Frequency	Percent
Yes	46	15.2%
No	256	84.8%
Total	302	100.0%

Table II: Stratification of Post Natal Depression after Normal Vaginal Delivery with Age Groups(n=302)

		Age Groups		Total	P Value
		25-35 Years	36-50 Years		
Post Natal Depression	Yes	23	23	46	0.625
		14.3%	16.3%	15.2%	
	No	138	118	256	
		85.7%	83.7%	84.8%	
Total		161	141	302	
		100.0%	100.0%	100.0%	

Table III: Stratification of Post Natal Depression after Normal Vaginal Delivery with Educational Level (n=302)

		Ed Level		Total	P Value
		Illiterate	Literate		
Post Natal Depression	Yes	10	36	46	0.598
		13.3%	15.9%	15.2%	
	No	65	191	256	
		86.7%	84.1%	84.8%	
Total		75	227	302	
		100.0%	100.0%	100.0%	

Table IV: Stratification of Post Natal Depression after Normal Vaginal Delivery with Monthly Income of Family (n=302)

		Monthly Income of Family			Total	P Value
		Low	Middle	High		
Post Natal Depressio	Yes	29	7	10	46	0.866
		16.0%	13.5%	14.5%	15.2%	
	No	152	45	59	256	
		84.0%	86.5%	85.5%	84.8%	
Total		181	52	69	302	
		100.0%	100.0%	100.0%	100.0%	

Discussion

Globally, postpartum depression can impact up to 15% of mothers annually. In Asian countries, the prevalence rate varies from 3.5% to 63.3%.[4] Notably, Pakistan exhibits the highest prevalence among Asian countries, ranging from 28% to 63%.[5] Postpartum depression is more prevalent in resource-constrained countries compared to developed nations. [5] Various factors are associated with an elevated risk of postpartum depression, including a history of psychiatric illness, psychological disturbances during gestation, domestic violence, poor marital relationships, and insufficient social support. Additionally, low social status and limited access to healthcare facilities play crucial roles in determining maternal and fetal outcomes. [5,9]

Identified risk factors encompass poor marital relationships, prenatal depression, child illness, low socioeconomic status, low educational levels, unwanted pregnancies, obesity, previous postpartum depression history, and physical symptoms. Some risk factors are specific to Eastern communities, such as the sex of the infant 6 and grand multiparty. [7]

Interventions for postnatal depression (PND) include pharmacologic approaches, supportive interpersonal and cognitive therapy, psychosocial support through groups, and complementary therapies. Electroconvulsive therapy has demonstrated efficacy for mothers experiencing severe PPD.[8,9] In severe cases of postpartum depression, especially for mothers at risk of suicide, inpatient hospitalization may be necessary. [10]

In the current study, the prevalence of postpartum depression was found to be 15.3%. Pradhananga et al.[11] conducted a study to determine the prevalence of postpartum depression in Nepal. Their results indicated a 14.7% prevalence among total mothers, which differs from the findings of this study. Another study conducted in Sindh reported a prevalence of 19.3%, almost consistent with our study. Additionally, a study investigating depressive and post-traumatic stress symptoms in women giving birth during the Covid-19 pandemic found a 42.9% prevalence, with fear of Covid-19 contributing to depression.[12] Another study in the Karachi population reported a 28.8% prevalence of postnatal depression, consistent with other studies in Pakistan.[13] Differences may be attributed to varying sociodemographic characteristics in different regions. In developed countries, including Singapore, Netherlands, and Switzerland, the prevalence rates of PPD were 3%, 8%, and 11%, respectively. [14,15]

Postpartum depression is a common and complex phenomenon with significant negative outcomes for children, women, and families. This study specifically highlights postnatal depression in patients who underwent normal vaginal delivery. The research identified several risk factors associated with postpartum depression, such as women's age, educational status, a history of previous miscarriages and stillbirths, and notably, low family income. However, no statistically significant association was observed. Overall, the level of prenatal attachment to the child emerged as the most critical predictor of postpartum depression. These findings underscore the crucial role of prenatal attachment in the onset of postpartum depression and the importance of promoting targeted prevention interventions.

Conclusion

This study concluded that Post-Natal Depression is prevalent amongst women having Normal Vaginal Delivery as well, therefore, this study recommends that females undergoing normal vaginal delivery shall be looked after properly. Recommendations: Females undergoing normal vaginal delivery shall be looked after and arrangements should be made for their special care so that they are properly counseled, thereby preventing them from future complications and depressive states. Moreover, future research should also focus on studies examining the efficacy of interventions delivered for prevention of Post-Natal Depression in the postnatal period in our local population.

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