



PREVALENCE OF POST-PARTUM DEPRESSION AND ITS ASSOCIATED RISK FACTORS AT ASHFAQ NEUROPSYCHIATRIC AND GENERAL HOSPITAL KHWAZA KHELA SWAT

Ashfaq Ahmad^{1*}, Aqeela Iqbal², Abid Usman³

^{1*}Consultant Psychiatrist, Government THQ Hospital Khwaza Khela, Swat Pakistan

²Senior Registrar Psychiatry Department, Naseer Teaching Hospital, Peshawar Pakistan

³Consultant Psychiatrist, MTI DHQ Hospital, Bannu Pakistan

***Corresponding Author:** Ashfaq Ahmad

*Consultant Psychiatrist, Government THQ Hospital Khwaza Khela, Swat Pakistan.

Email: ashfaq2996@gmail.com

ABSTRACT

Background: Women go through a variety of emotional changes throughout the crucial postpartum phase of their lives. If postpartum depression is not identified and treated, both the mother and the child may suffer serious consequences.

Objective: The aim of this study was to explore the Prevalence of post-partum depression and its associated risk factors at Ashfaq Neuropsychiatric and General hospital Khwazakhela Swat.

Methodology: The current study was carried out at the department of psychiatry in Ashfaq Neuropsychiatric and General Hospital Khwazakhela Swat from August 2022 to April 2023 after taking approval from the ethical committee of the institute. A total 179 postpartum women age ranged from 18 to 45 visited the hospital between 10 days to a year following delivery were enrolled in the current study. Women on antidepressants and antipsychotics and with a history of mental illness were excluded. The validated version of the Edinberg Postpartum depression Scale was used to screen for postpartum depression. Participants were given the questionnaire and instructed to choose the option that best reflected their feelings during the previous seven days for each topic. To lessen bias, patients were advised to fill out the questionnaire as independently as possible with as little help as possible. Women were considered to be suffering from post-partum if their threshold score was 10 or above. Women exhibiting post-partum depression symptoms were sent to the psychiatric department for further management. The data was entered into a Microsoft Excel spreadsheet and analyzed using SPSS version 23.0. The odds-ratio was used to assess the relationship between post-partum depression and other risk variables, with a P-value of less than 0.05 indicating a significant correlation.

Results

A total of 179 women participated in this study out of which 22 individuals (12.2%) on Edinberg Post-partum depression scale scored more than 10 were considered depressed. Age previous abortion did not correlate with postpartum depression. (Value of P 0.11). Previous intrauterine device was associated with increase of postpartum depression (value of p 0.013). There was no evidence associating the baby's sex to a higher incidence developing postpartum depression (P = 0.33). Patients who had family support had a lower risk 5(6.4%) of developing Post -partum depression. (P is equal

to 0.02). Additionally, individuals who have postpartum complications had a higher risk (7.76%) to get PPD ($P = 0.03$). Postpartum depression was not observed to be correlated with socioeconomic position ($p = 0.09$) or education ($OR = 0.62$, $P = 0.27$). Among working and housewife women, there wasn't no statistically significant distinction ($P = 0.3$). Postpartum depression was shown to have a strong correlation ($P = 0.01$) with IUD or early neonatal mortality.

Conclusion

The current study concluded that prevalence of PPD is 11.4%. Postnatal women frequently experience post-partum depression, which can have an impact on the mother, child, and whole family.

Key words: Prevalence; Post-partum; Risk factors

Introduction

The American Psychological Association (APA) defines postpartum depression as "a serious mental health problem that results in a prolonged period of emotional stress which occur during the care of a newborn.¹ It is a non-psychological depressed episode that can persist for up to 14 months following childbirth and starts after the first week of the postnatal period.² It can negatively impact the attachment between a mother and her child.³ It may be harmful to the children and have a bad effect on their relationship.⁴ In later life, persistent, recurring depression and interpersonal issues may result from undiagnosed and untreated PPD.⁵ The prevalence of postpartum psychosis is substantially lower, ranging from 0.89 to 2.6 per 1,000 newborns worldwide.⁶ According to several research, the prevalence of postpartum depression has ranged between 10% and 15%. According to current reports, 22% of cases are from India.⁷ Undiagnosed postpartum depression can have major consequences for both the mother and the child if treatment is not received. Treatment is necessary since it may appear right after the baby is born or may develop afterwards prenatal depression⁸ Compared to children of non-depressed female mothers, postpartum depression can result in increased cognitive, behavioral, and interpersonal issues as well as a higher chance of underweight and stunting in the offspring.⁹ PPD has been associated with a number of things. International research, for example, revealed that young age and single motherhood.¹⁰

PPD is linked to a number of factors, including delivery complications as well as partner support at the pregnancy itself¹¹, reporting of a health issue during the previous pregnancy¹², feeling exposed to a lot of stressors in life, having low satisfaction with interactions with the husband as well as family, and not having enough money or social support.¹³

The Edinburgh Postpartum Depression Scale (EPDS), a 10-point questionnaire, is typically used for postpartum depression screening. It is simple to validate and use. This scale is mostly used as a screening tool.¹⁴ In order to prevent postpartum depression's impact on women's and their children's health and avoid its distant consequences, we conducted a cross-sectional study in which we enrolled women in the postpartum period to determine its prevalence and analyze its risk factors.

Material and Method

The current study was carried out at the department of psychiatry in Ashfaq Neuropsychiatric and General hospital Khwazakhela Swat from August 2022 to April 2023 after taking approval from the ethical committee of the institute. A total 179 postpartum women age ranged from 18 to 45 visited the hospital between 10 days to a year following delivery were enrolled in the current study. Women on antidepressants and antipsychotics and with a history of mental illness were excluded. The validated version of the Edinberg Postpartum Depression Scale was used to screen for postpartum depression. The Edinburg Post-Partum Depression Scale examines about poor self-esteem, sleep difficulties, weeping fits, sadness, despair, and suicide thoughts. There are ten questions in it. Participants were given the questionnaire and instructed to choose the option that best reflected their feelings during the previous seven days for each topic. To lessen bias, patients were advised to fill out the questionnaire as independently as possible with as little help as possible. The scores for the responses are 0, 1, 2, and 3. The score is between 0 and 30. Women were considered to be suffering

from PPD if their threshold score was 10 or above.¹⁴ The sociodemographic, obstetric, and other factors pertaining to delivery, the postpartum phase, and the family were enquired about and recorded. Patients exhibiting PPD symptoms were sent to the psychiatric department for further management.

Data analysis

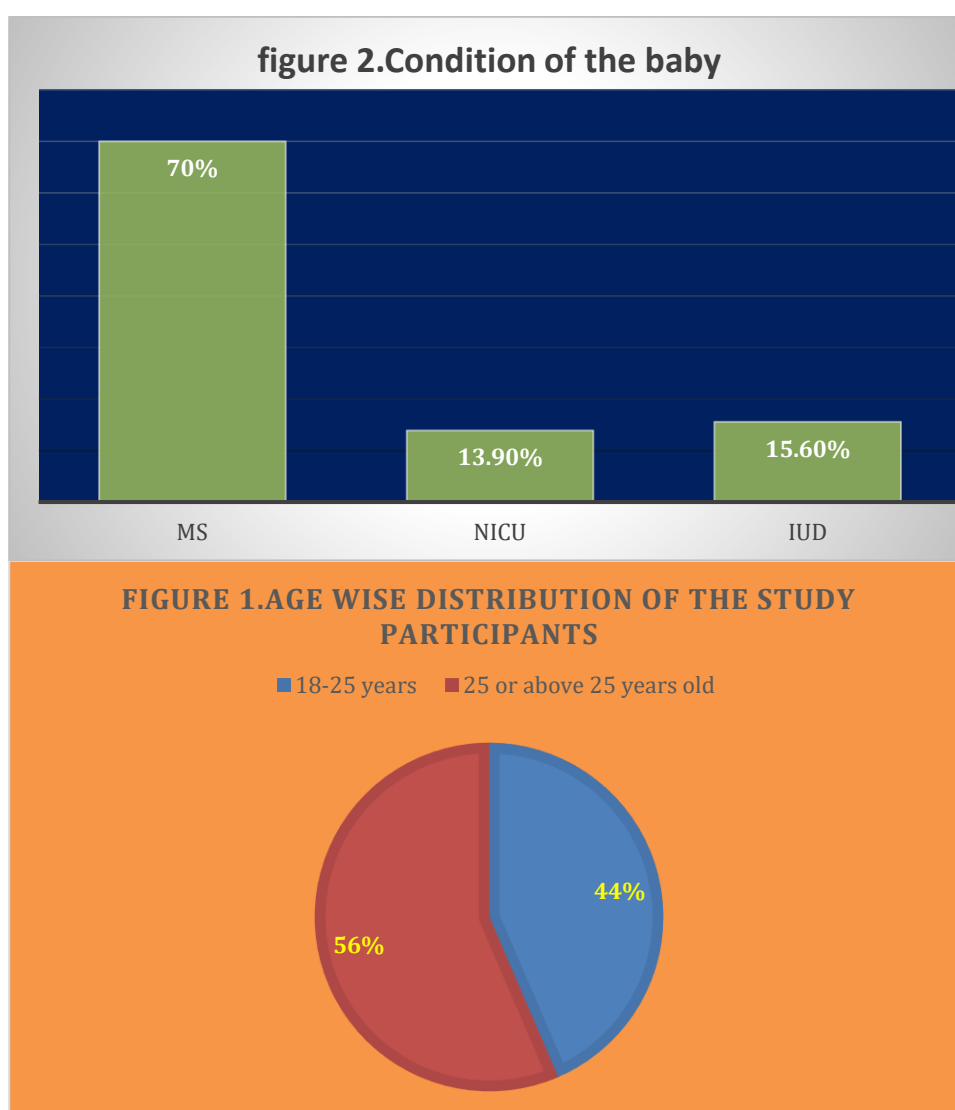
The data was entered into a Microsoft Excel spreadsheet and analyzed using SPSS version 23.0. The odds-ratio was used to assess the relationship between post-partum depression and other risk variables, with a P-value of less than 0.05 indicating a significant correlation.

Results

A total of 179 women participated in this study out of which 22 individuals (12.2%) on Edinberg Post-partum depression scale scored more than 10 were considered depressed.(Comparison of the obstetrical and demographic characteristics of the depressed & non-depressed group of postpartum mothers presented in table 1.) Majority of the individuals were in the age group of 25 years or more (**figure 1**). When examining the effects of several variables, age did not correlate with postpartum depression. History of previous abortion was evaluated in 42(23.4%) individuals but it was not associated with postpartum depression (Value of P 0.11) 34(18.9%) of the participants had Previous intrauterine device of which 9(13.8%) had PPD. so it was realized to be associated with increase of postpartum depression (value of p 0.013). There was no evidence associating the baby's sex to a higher incidence developing postpartum depression (P = 0.33). Patients who had family support had a lower risk 5(6.4%) of developing Post -partum depression. (P is equal to 0.02). Additionally, individuals who have postpartum complications had a higher risk (7.76%) to get PPD (P = 0.03). Postpartum depression was not observed to be correlated with socioeconomic position (p = 0.09) or education (OR = 0.62, P = 0.27). Among working and homemaker women, there wasn't no statistically significant distinction (P = 0.3). Among babies 13.9% were admitted to NICU, 15.6% had IUD (Fig .2) Postpartum depression was shown to have a strong correlation (P = 0.01) with IUD or early neonatal mortality (**table 1**)

Table 1. Comparison of the obstetrical and demographic characteristics of the depressed & non-depressed group of postpartum mothers				
Factors	Depressed group N (%)	Non depressed group N(%)	Odd ratio	Value of P
Age in years			0.8675	(0.47)
18 to 25	11(50%)	67(42.6%)		
25 or above	11(50%)	90(57.3%)		
Previous abortion history			0.3421	(0.11)
Yes	3(7.1%)	39(92.8%)		
No	19(86%)	118(75.1%)		
Previous intrauterine device			0.2748	(0.01)
Yes	9(13.8%)	25(18.2%)		
No	13(8.9%)	132(91.0%)		
Delivery type			1.692	(0.19)
Through vagina	12(15.3)	66(84.6%)		
Lower segment caesarian	10(9.9%)	91(90.0%)		
Gender of baby			1.373	(0.33)
Male	10(10.7%)	83(89.2%)		
Female	12(13.9%)	74(86.0%)		
Baby congenital malformation				P = 0.88
Yes	0	2(100%)		
No	22(12.4%)	155(87.5%)		
Postpartum complication			2.862	(0.03)
Yes	8(7.76%)	95(92.2%)		

No	14(18.42%)	62(81.57%)		
Support from family			0.295	(0.02)
Yes	5(6.4%)	72(93.5%)		
No	17(16.6%)	85(83.3%)		
Baby condition			P < 0.001	
MS	5(3.9%)	121(96.0%)		
NICU	3(12%)	22(88%)		
IUD	14(50)	14(50)		
Education			0.623	(0.27)
Illiterate	6(9.8%)	55(90.1%)		
Literate	16(13.5%)	102(86.4%)		
Parity			1.036	(0.56)
Primi	8(12%)	54(87.0%)		
Multi	14(11.9%)	103 (88.0%)		



Discussion

Women go through a variety of emotional changes throughout the crucial postpartum phase of their lives. If postpartum depression is not identified and treated, both the mother and the child may suffer serious consequences. Numerous studies have demonstrated that postpartum depression negatively impacts both the development of the newborn and the mother-child attachment.¹⁵ The goal of this study is to investigate the trends in risk factors that may influence postpartum depression. In our

study, the prevalence of PPD is 11.4%. The findings of our study are not similar with the research conducted by Kale et al.¹⁶ in which they reported 4.87% prevalence. The most current data published in the WHO 2017 Bulletin indicates that the actual incidence of depression following childbirth in India is 22%¹⁷ In a Mysore research, the prevalence of PPD was greater, at 27%.¹⁸ It is simply proposed that there may be a decreased incidence of postpartum depression in our cohort; this might be examined in further studies. Due in part to the delivered women's refusal to take part in the research, which required them to be sent to and speak with a psychiatrist, our study's small number of participants may be one of its main drawbacks. This may be the cause of the fact that many women ignored our recommendation to see a psychiatrist because it is still criticized in our culture and many of them did not desire for it. Age was not shown to be associated with postpartum depression in our study. This is with in line with the study conducted by kale et al.¹⁶ they reported that there was no statistically significant correlation between postpartum depression and age. Because these variables depend on the numerous demographic aspects of the people under research and change appropriately, outcomes of different research may not be consistent with our findings.¹⁹ The study found a correlation between postpartum depression and the history of IUD use but not between the history of abortion and postpartum depression. The current study found no evidence linking PPD to a child's sex. This contrasts with other research that found a link between PPD and the delivery of a female child.²⁰ Women with postpartum complications have a higher risk of developing postpartum depression. Those with family support in the current research had a lower risk of having PPD (7.76%). The results of our investigation, which were in accordance with those of earlier studies by Farheen et al., indicated that postpartum depressive women experienced higher feelings of loneliness, which may be related to a lack of social and emotional support.²¹ Additionally, research by Stewart DE et al. and Ray S. et al. demonstrated an association between PPD and social support²² Our research did not find a correlation between the socioeconomic situation, level of education, and employment status of women with PPD. PPD was discovered to be much higher in mothers with either an IUD or a sick baby. Szymusik et al.²³ and Patel et al.²⁴ both demonstrated a connection between PPD and feeling sick neonates.

Limitation One of the study's limitations was that it was a cross-sectional study conducted in a hospital and did not reflect the entire community at risk. High socioeconomic category women are not included in this study.

Conclusion

The current study concluded that prevalence of PPD is 11.4%. Postnatal women frequently experience post-partum depression, which can have an impact on the mother, child, and whole family. It is associated with a number of dynamic variables, including social and interpersonal support. For women who are at risk, early identification of PPD and family therapy are therefore crucial to its prevention.

References

1. American Psychological Association, Post-partum depression. Available at:<http://www.apa.org/pi/women/resources/reports/postpartum-dep.aspx>. Accessed on 10th September 2019.
2. Leitch S. Postpartum depression: A review of the literature. St. Thomas, Ontario: Elgin-St. Thomas Health Unit; 2002.
3. Barnes DL. Postpartum depression: its impact on couples and marital satisfaction. *J Syst Ther.* 2006; 25:25-42
4. Kavanaugh M, Halterman J, Montes G, Epstein M, Hightower AD, Weitzman M. Maternal depressive symptoms are adversely associated with prevention practices and parenting behaviors for preschool children. *Ambulatory Pediatr.* 2006; 6:32-7
5. Jacobsen T. Effects of postpartum disorders on parenting and on offspring. In L. J. Miller

- (Ed.), Postpartum Mood Disorders, Washington, DC: American Psychiatric Press; 1999:119-139
6. Surkan PJ, Kennedy CE, Hurley KM, et al. Maternal depression and early childhood growth in developing countries: systematic review and meta-analysis. *Bull World Health Organ* 2011;89(8):608–615D.
 7. Upadhyay RP, Chowdhury R, Salehi A, et al. Postpartum depression in India: a systematic review and meta-analysis. *Bull World Health Organ* 2017;95(10):706 –717C
 8. Tewart DE, Robertson E, Dennis CL, et al. Postpartum depression: literature review of risk factors and interventions. Toronto: University Health Network Women’s Health Program; 2003.
 9. Surkan PJ, Kennedy CE, Hurley KM, et al. Maternal depression and early childhood growth in developing countries: systematic review and meta-analysis. *Bull World Health Organ* 2011; 89(8):608–615D.
 10. Kang SY, Khang YH, June KJ, Cho SH, Lee JY, Kim YM, Cho HJ: Prevalence and risk factors of maternal depression among women who participated in a home visitation program in South Korea. *Soc Psychiatry Psychiatr Epidemiol.* 2022, 57:1167-78
 11. Inicio | Revista de Ginecología y Obstetricia de México . (2022). Accessed: September 19, 2022:<https://ginecologiyobstetricia.org.mx/>
 12. Roumieh M, Bashour H, Kharouf M, Chaikha S: Prevalence and risk factors for postpartum depression among women seen at Primary Health Care Centres in Damascus. *BMC Pregnancy Childbirth.* 2019, 19:519
 13. Maharajan S, Ramkumar DS, Amthul N, Shrutiravali: Prevalence of postpartum depression among postnatal women at a tertiary care centre using Edinburgh Post-Partum Depression Scale. *Int J Res Pharm Sci.* 2021, 12:1-5.
 14. Cox JL, Holden JM, Sagovsky R. Detection of postnatal depression: development of the 10-item Edinburgh Postnatal Depression Scale. *Br J Psychiatry* 1987; 150(6):782–786.
 15. Field T. Postpartum depression effects on early interactions, parenting, and safety practices: a review. *Infant Behav Dev* 2010;33(1):1–6.
 16. Kale, Deepali P., Zenab Y. Tambawala, and Namrata M. Rajput. "Postpartum depression prevalence in a tertiary care hospital in Mumbai, Maharashtra, India." *Journal of South Asian Federation of Obstetrics and Gynaecology* 11.4 (2019): 240.
 17. VanderKruik R, Barreix M, Chou D, et al. The global prevalence of postpartum psychosis: a systematic review. *BMC Psychiatry.* 2017;17(1):272.
 18. Kumar N, Nagaraj AKM, Koudike U, Majgi SM. Psychiatric morbidity and correlates in postpartum women in a tertiary care hospital. *Indian J Psychol Med.* 2016; 38(4):309-14.
 19. Di Florio A, Putnam K, Altemus M, et al. The impact of education, country, race and ethnicity on the self-report of postpartum depression using the Edinburgh Postnatal Depression Scale. *Psychol Med* 2017;47(5):787–799
 20. Gupta S, Kishore J, Mala YM, Ramji S, Aggarwal R. Postpartum depression in north Indian women: prevalence and risk factors. *J Obstet Gynaecol India.* 2013;63(4):223-9.
 21. Zaidi F, Nigam A, Anjum R, Agarwalla R. Postpartum depression in women: a risk factor analysis. *J Clin Diagn Res.* 2017;11(8):QC13-QC16.
 22. Sheela CN, Venkatesh S. Screening for postnatal depression in tertiary care hospital. *J Obstet Gynaecol India.* 2016; 66(1):72-6
 23. Patel S, Wittkowski A, Fox JRE, Wieck A. An exploration of illness beliefs in others with postnatal depression. *Midwifery.* 2013;29(6):682-9.
 24. Szymusik I, Wielgoś M, Horosz E, KosińskaKaczyńska K, et al. Affective disorders in the first week after the delivery: prevalence and risk factors. *Ginekol Pol.* 2008; 79:182-5