

Determining the Occurrence of Postpartum Depression in the Southern Part of Kerala

Jomol Mathew¹, Bevan Abraham², Riya Thomas³, Surya Soman⁴,
Dr Philip Jacob⁵

^{1,2,3,4}Doctor of Pharmacy Interns, Nazareth College of Pharmacy, Othara, Thiruvalla

⁵Professor & HOD, Department of Pharmacy Practice, Nazareth College of Pharmacy, Othara, Thiruvalla, Kerala

ABSTRACT

Background: Pregnancy and childbirth represent pivotal moments in a woman's life, often accompanied by mental health challenges during both the prenatal and postpartum periods. The emergence of mental health issues during these phases can significantly impact a woman's well-being. Postpartum depression (PPD) stands out as a prevalent complication, affecting approximately 10–22% of women in their childbearing years.

Objective: To assess the prevalence of postpartum depression in the southern part of Kerala.

Materials and methods: A Cross-Sectional Descriptive Study was conducted to assess the prevalence of postpartum depression and the data was collected through Community visits to the Family Health Center, Othara, and households of Eraviperoor Grama Panchayath. The sample size of the study was 150 subjects and a duration of 6 months. Participants were asked to fill out a prepared questionnaire to determine maternal health and concerns that could lead to postpartum depression. Those with communication problems and those who refused to participate were excluded. Questionnaires were filled out through face-to-face interviews with patients. The questionnaire was prepared in English and translated into the Malayalam language.

Results: The prevalence of PPD was found to be 40% mild/moderate and 4% severe, and baby blues was found to be 77% prevalent.

Conclusions: The result of the study notifies that even though the awareness and importance of PPD is being discussed nowadays, nevertheless the understanding of related mechanisms and associated risk factors remains poor which brings high incidences of postpartum depression in our society silently.

KEYWORDS: Postpartum Depression (PPD), Edinburgh Postnatal Depression Scale (EPDS), Anxiety, Baby blues, Postpartum women.

INTRODUCTION

The well-being of mothers during the postpartum phase is crucial for both their health and the healthy development of their newborns. Welcoming a baby into the world marks a significant life transition, especially for first-time mothers, bringing about changes in relationships and family dynamics.⁽¹³⁾⁽¹⁴⁾ This period often introduces financial strains, even in households with higher incomes. Research has consistently highlighted the impact of stressful life events and social challenges on maternal mental health,

particularly depression, which commonly co-occurs with anxiety. Postpartum anxiety, characterized by heightened feelings of worry, is a mental health condition that can manifest within the first year after childbirth. ⁽¹⁾⁽²⁾

Typically, PPD arises within the initial six weeks post-delivery, with recovery commonly occurring within six months, although its effects can persist into the first and second years postpartum. ⁽⁴⁾ The repercussions of PPD are wide-ranging and include adverse outcomes for both mothers and infants, such as heightened suicide risk for mothers, compromised maternal-infant interactions, early cessation of breastfeeding, and developmental delays in children. ⁽⁶⁾

METHODOLOGY

The study was done by using a Cross-Sectional Descriptive Method. This was conducted for a period of 6 months (November 2022 to April 2023). All patients who met the inclusion and exclusion criteria were included. The number of study subjects was 150. The study was initiated after obtaining approval from the Institutional Review Board of Nazareth College of Pharmacy.

The data was collected through Community visits to the Family Health Center, Othara, and households of Eraviperoor Grama Panchayath. Participants were asked to fill out a prepared questionnaire to determine maternal health and concerns that can lead to postpartum depression. Questionnaires were filled out through face-to-face interviews with patients. The questionnaire was prepared in English and translated into Malayalam language After assessing their maternal health and concerns from the data, patient counseling was given to patients. Later, a follow-up was conducted after two weeks. The data collected were entered in the Microsoft Excel-2018 version and the results were analyzed in tabular form and percentage.

RESULTS

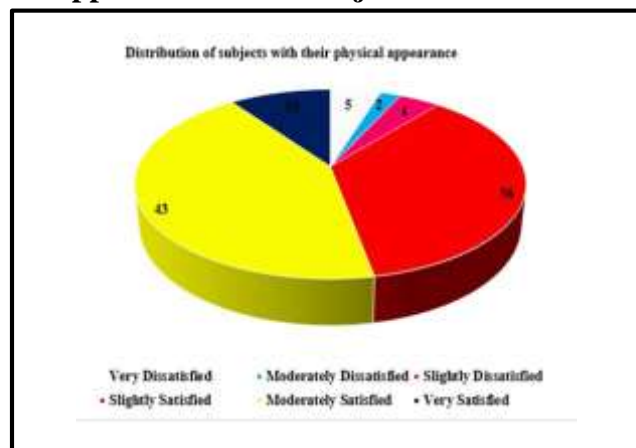
1. Distribution of age group of subjects

Among the 150 postpartum women enrolled in the study, the majority of the subjects belonged to the age group of 21-30 years (53%) followed by 31-40 years (40%) and 7% of the subjects belonged to the age group of 41-50 years.

2. Distribution in the occurrence of difficulty with weight gain

Among the women enrolled in the study, 76% did not have any difficulty associated with weight gain, while the remaining 24% had difficulty associated with weight gain.

3. Distribution in the physical appearance of the subject



4. Distribution of the emotional support received from Husband

Of about 150 postpartum subjects enrolled in the study 66% subjects were very satisfied with the emotional support by their husband, were as 23% had moderate satisfaction, 7% had slight dissatisfaction with the emotional support by their husband, 2% were very dissatisfied and 1% each was slightly satisfied and moderately dissatisfied on the emotional support by husband.

Family members

From the subjects enrolled in the study, 63% were very satisfied with emotional support provided by family members, 20% were moderately satisfied, 8% were slightly dissatisfied were as, 4% moderately dissatisfied, 3% were slightly satisfied and 2% very dissatisfied with emotional support obtained from family members.

Friends

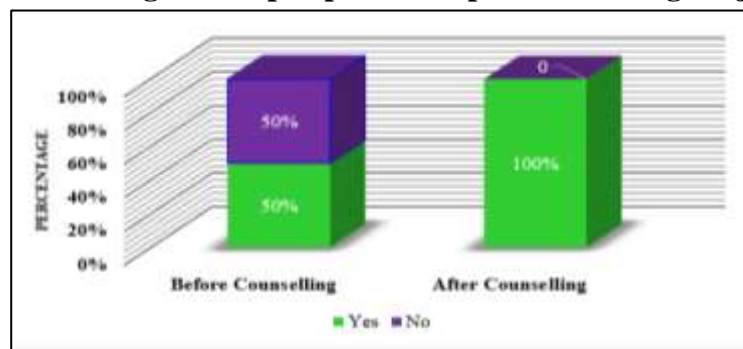
Also in the study, 65% were very satisfied with emotional support provided by friends, 15.5% were moderately satisfied, 9% were slightly satisfied, 5% were slightly dissatisfied, were as 4.5% were moderately dissatisfied, and the remaining 1% were very dissatisfied with emotional support received from friends.

5. Distribution in the presence of baby blues in subjects and methods used to overcome



Among the subjects who had baby blues used several methods to overcome them, such as, talking to a partner (37.93%) was most commonly did, meditation (17.24%), listening to music (14.66%), sleep (12.07%), family support (10.34%), some couldn't overcome which was (3.45%), resting (2.59%), and cry by self (1.72%).

6. Distribution in the knowledge about postpartum depression among subjects



From the women enrolled in the study, knowledge about postpartum was assessed, from which 50% of

women stated a positive result and 50% of women stated a negative result. Counseling was given which gave a 100% result.

7. Distribution in the subject's understanding of postpartum depression.

A: A complex mix of physical, emotional, and behavioral changes after delivery

B: A complex mix of physical, emotional, and behavioral changes before delivery

C: Type of depression seen in teenage girls and early adult women.

In the study of 150 participants 48% stated option A, while 33% stated option B and 19% option C about understanding postpartum depression.

8. Assessment of depression

It was done with an EPDS scoring scale which is given below:-

Q1. Distribution of whether subjects blamed me unnecessarily when things went wrong.

Q2. Distribution of whether subjects looked forward with enjoyment to things.

Q3. Distribution of whether subjects have felt scared or panicky for no very good reason.

Q4. Distribution of whether subjects thought of harming themselves.

Q5. Distribution of whether subjects have trouble falling asleep.

Q6. Distribution of whether subjects had been so unhappy to cry.

Q7. Distribution of whether subjects have felt sad or miserable.

Q8. Distribution of whether subjects had been anxious or worried for no reason.

Q9. Distribution of whether subjects have felt down or depressed.

Response	Q1		Q2		Q3		Q4		Q5	
	n	%	n	%	n	%	n	%	n	%
Yes, quite a lot	2	2	85	57	8	5	1	1	0	0
Yes sometimes	34	23	31	21	52	35	1	1	89	60
No not much	35	22	24	15	44	29	28	18	26	17
No not at all	79	53	10	7	46	31	120	80	35	23
Total	150	100	150	100	150	100	150	100	150	100

Response	Q6		Q7		Q8		Q9	
	n	%	n	%	n	%	n	%
Yes, quite a	1	1	0		2	1	0	

lot								
Yes sometimes	33	22	34	23	24	16	2	1
No not much	40	27	49	33	51	34	19	13
No not at all	76	50	67	44	73	49	129	86
Total	150	100	150	100	150	100	150	100

9. Ability to perform responsibilities that meet family needs

Among the 150 participants in the study ability to meet the responsibility for the family's needs was assessed and 97% stated a negative response while 3% stated a positive response.

10. Help received during the postpartum period

In the study of 150 participants enrolled, help from the family during postpartum was accessed by 90% of the population which stated a positive response while 10% stated a negative response.

11. Contact made during postpartum

In the study of 150 subjects, the contact made with other parents was accessed and showed 61% stated a positive response while 39% stated a negative response.

12. Distribution of whether subjects had depression

Sl. No.	Scoring	Stages	Frequency	Percentage
1	0-7	No Depression	83	56
2	8-12	Mild/Moderate depression	59	40
3	Above 13	Severe depression	8	4
	Total		150	100

DISCUSSION

Children of mothers with postpartum depression have greater cognitive, behavioral, and interpersonal problems compared with the children of non-depressed mothers. ⁽⁹⁾

A meta-analysis in developing countries showed that the children of mothers with postpartum depression are at greater risk of being underweight and stunted. Moreover, mothers who are depressed are more likely not to breastfeed their babies and not seek health care appropriately.

Awareness regarding screening, detecting, and treating PPD has increased in past years. Nevertheless, the understanding of related mechanisms and associated risk factors remains poor. Research supports the idea that a combination of medicine, counseling, support groups, and self-help strategies are the most effective

ways to treat depression and anxiety. ⁽¹⁰⁾⁽¹¹⁾

According to *Upadhyay RP et.al.*, postpartum psychiatric disorders can be categorized into three main types: postpartum blues, postpartum psychosis, and postpartum depression. Postpartum blues, affecting 300–750 per 1000 mothers globally, typically resolve within days to a week with minimal negative effects and often necessitate only supportive measures. On the other hand, postpartum psychosis, with a prevalence of 0.89 to 2.6 per 1000 births globally, is a severe condition necessitating immediate hospitalization, usually manifesting within four weeks postpartum. ⁽⁴⁾ Postpartum depression, with a global prevalence estimated at 100–150 per 1000 births, requires timely intervention, as it can commence shortly after childbirth or persist from antenatal depression. ⁽⁴⁾

Wassif OM et.al., studies emphasize postpartum depression (PPD) as a prevalent psychological issue affecting 10%–15% of women globally, while maternal postpartum anxiety ranges from 9% to 13% worldwide. ⁽³⁾ Various risk factors have been identified as robust predictors of postpartum depression or anxiety, including recent stressful life events, inadequate social support, and a history of depression. The negative ramifications of postpartum depression and anxiety extend beyond infancy, potentially impacting maternal and infant health well into childhood, adolescence, and even adulthood. ⁽³⁾

Here in this study according to the assessing scale 56% had no depression, while 40% had mild/moderate depression and 4% with severe depression in 150 participants, which point outs the relevance and seriousness of the consideration of postpartum depression and requirement of management for the same. ⁽³⁾⁽⁴⁾

Recently a case held in Kerala holds the importance of awareness of postpartum depression. It was an incident where a mother killed her newborn and committed suicide herself due to PPD. The case shows that the mother was suffering from depression after her first child's devastation which was followed by the second born and led to postpartum depression due to lack of family support. ⁽¹²⁾

Studies from Kerala, have shown that about 80% of women go through mild to severe behavioral changes triggered by various factors within a few days of delivery, says Dr. Arun B Nair, Assistant Professor of Psychiatry at Government Medical College, Thiruvananthapuram.

Kerala has always had a low maternal mortality rate, compared to the national average. But when we look at the cause of maternal mortality, many were suicides. In 2018-19, maternal suicides were about 7% of the total maternal mortalities. 13 out of 187 new mothers who had died killed themselves. It was addressed during the launch of "Amma Manasu", says Dr. Kiran PS, Nodal Officer, Mental Health Program.

CONCLUSION

In this study, a sample size of 150 women in their postpartum period was evaluated from which information regarding their physical and emotional health, the changes observed in them before and after pregnancy, and in the postpartum period, was recorded. The prevalence of PPD was found to be 40% mild/moderate and 4% severe, and baby blues was found to be 77% prevalent.

ACKNOWLEDGMENT

The author would like to thank Dr. Philip Jacob, Professor and Head of the Department, Department of Pharmacy Practice. Nazareth College of Pharmacy, Othara for the immense support and guidance throughout the research work.

CONFLICT OF INTEREST: There is no conflict of interest.

ABBREVIATIONS

PPD -Postpartum Depression

EPDS - Edinburgh Postnatal Depression Scale

REFERENCES

1. Van der Zee-van AI, Boere-Boonekamp MM, Groothuis-Oudshoorn CG, Reijneveld SA. Postpartum depression and anxiety: a community-based study on risk factors before, during, and after pregnancy. *Journal of Affective Disorders*. 2021 May 1; 286:158-65: 158-59.
2. Yelland J, Sutherland G, Brown SJ. Postpartum anxiety, depression, and social health: findings from a population-based survey of Australian women. *BMC Public Health*. 2010 Dec; 10(1):1.
3. Wassif OM, Abdo AS, Elawady MA, Abd Elmaksoud AE, Eldesouky RS. Assessment of postpartum depression and anxiety among females attending primary health care facilities in Qaliubeya Governorate, Egypt. *Journal of Environmental and Public Health*. 2019 Dec 26; 2019: 1-2.
4. Upadhyay RP, Chowdhury R, Salehi A, Sarkar K, Singh SK, Sinha B, Pawar A, Rajalakshmi AK, Kumar A. Postpartum depression in India: a systematic review and meta-analysis. *Bulletin of the World Health Organization*. 2017 Oct 10; 95(10): 706-07.
5. Cho H, Lee K, Choi E, Cho HN, Park B, Suh M, Rhee Y, Choi KS. Association between social support and postpartum depression. *Scientific reports*. 2022 Feb 24: 1-2.
6. Gastaldon C, Solmi M, Correll CU, Barbui C, Schoretsanitis G. Risk factors of postpartum depression and depressive symptoms: umbrella review of current evidence from systematic reviews and meta-analyses of observational studies. *The British Journal of Psychiatry*. 2022 Jan 27: 591-92.
7. Gjerdingen D, Fontaine P, Crow S, McGovern P, Center B, Miner M. Predictors of mothers' postpartum body dissatisfaction. *Women & health*. 2009 Nov 30;49(6-7): 2
8. Almalik MM. Understanding maternal postpartum needs: a descriptive survey of current maternal health services. *Journal of Clinical Nursing*. 2017 Dec;26(23- 24): 3-4
9. Patra S, Singh B, Reddaiah VP. Maternal morbidity during postpartum period in a village of north India: a prospective study. *Tropical doctor*. 2008 Oct; 38(4):204-8: 38.
10. Xiao X, Ngai FW, Zhu SN, Loke AY. The experiences of early postpartum Shenzhen mothers and their need for home visit services: a qualitative exploratory study. *BMC pregnancy and childbirth*. 2020 Dec; 20: 2.
11. Bennett ED, Sylvester AN. Postpartum depression: What counselors need to know? *Vistas*. 2013; 24: 2.
12. Shenoy H, Remash K, Shenoy S. Prevalence and determinants of postnatal depression in a tertiary care teaching institute in Kerala, India. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*. 2019 Sep 1;8(9): 3757-65
13. Abdollahi F, Zarghami M. Effect of postpartum depression on women's mental and physical health four years after childbirth. *East Mediterr Health J*. 2018 Oct 1;24(10):1002-9.
14. Dennis CL, Janssen PA, Singer J. Identifying women at-risk for postpartum depression in the immediate postpartum period. *Acta Psychiatrica Scandinavica*. 2004 Nov;110(5): 338-46.
15. Negron R, Martin A, Almog M, Balbierz A, Howell EA. Social support during the postpartum period: mothers' views on needs, expectations, and mobilization of support. *Maternal and child health journal*. 2013 May;17: 616-23.