International Journal Dental and Medical Sciences Research
Volume 4, Issue 4, July-Aug 2022 pp 148-153 www.ijdmsrjournal.com ISSN: 2582-6018

Prevalence of postpartum psychiatric disorders in Northern Haryana and their relation to various socio-demographic factors

Dr Akshara Mishra, Dr Geetika Arora, Dr. Ajay Ogha

Submitted: 10-07-2022 Accepted: 23-07-2022

Objectives: To identify the prevalence and various socio-demographic risk factors for postpartum psychiatric disorders (PPD) in Northern Haryana.

Materials and Methodology: This retrospective study was conducted between September 2020 to February 2021 in the department of obstetrics and gynecology hospital at SGT Medical College, Gurugram among postnatal mothers who were followed up for 6 months. The items on the questionnairewere designed to identify and assess the income level ofthe family, the occupation of the pregnant woman and her husband, and their education levels, family type (nuclearor extended), whether the pregnancy was planned or unwanted, attitudes towards the pregnancy and thebaby, the presence of domestic violence, and previouspsychiatric and obstetric history. The outcome of the pregnancy,the delivery method, and gender and health status of thebaby were obtained from hospital records.Whooley questions for depression were used to assess the PPD. Differences between the two groups were determined using the chi-square test and the level of significance was set at $p < 0.05$.

Results: Statistically significant association was found between positive family history and PPD ($p<0.05$) while no such association of PPD was found with SES, education, religion, and type of family as $p>0.05$. PPD was present among 76.47% and 23.53% of the subjects with and without NICU admission respectively with a statistically significant difference.

Conclusion: Preventive strategies must be designed toattenuate or eliminate the impact of such contributory factors which can substantially improve the emotional well-being of women in the vulnerable postnatal period.

I. INTRODUCTION:

One of the most significant life phases in which appropriate assessment& management of psychological discomfort is essential, is the postpartum period. In up to 30% of women, the adjustment to new parenthood is linked with mental anguish[1]. Several kinds of research have found that stressful life events and social health difficulties influence mothers' psychological morbidities such as depression, anxiety, and stress[2,3].Depression and anxiety symptoms frequently co-occur, and this comorbidity is thought to be a measure of the intensity of psychological suffering[4].

There are three types of postpartum mental disorders: postpartum blues, postpartum psychosis, and postpartum depression[5]. With a worldwide frequency of 300-750 per 1000 moms, postpartum blues can last anywhere from a few days to a week, have minimal harmful consequences, and generally merely require reassurance. Postpartum depression, which affects 10% to 22% of women, can develop shortly after childbirth or as a continuation of prenatal depression and requires treatment. Postpartum psychosis is a severe illness that develops within four weeks of delivery and necessitates hospitalization. Its global prevalence ranges from 0.89 to 2.6 per 1000 births[6].

Children of mothers with PPD are more likely to be underweight and stunted, according to a meta-analysis conducted in poor nations. Furthermore, sad moms are less likely to nurse their children and to seek proper health care[7]. 10-year longitudinal research in low- and middle-income countries found that maternal PPD is linked to negative psychological outcomes in children[8]. While PPD is a serious health concern for many women, it is frequently misdiagnosed and hence ignored[7].

Many risk factors for the illness have been discovered, and it is especially tempting to blame it on hormonal changes. However, several additional variables may predispose women to this illness viz. “past premenstrual dysphoria, stressful events during pregnancy or early puerperium, poor social support, marital conflict and violence, low levels of partner support, personality disorders, low income, immigrant status, young maternal age, obstetrical stressors, and difficult infant temperament have all been identified as predictors of PPD in previous studies”[9]. For other circumstances, such as an unexpected pregnancy and the gender of the infant, the data is conflicting.

International Journal Dental and Medical Sciences Research
Volume 4, Issue 4, July-Aug 2022 pp 148-153 www.ijdmsrjournal.com ISSN: 2582-6018

This study was conducted to evaluate the prevalence and various socio-demographic risk factors for PPD in Northern Haryana.

II. MATERIAL AND METHOD:

This retrospective study was conducted between September 2020 to February 2021 in the department of obstetrics and gynecology hospital at SGT Medical College, Gurugram amongpostnatal mothers who were followed up for 6 months. The SGT Medical College's Ethics Committee gave its approval to the project. After being briefed about the study's approach and objectives, participants completed informed permission forms. "Women with multiple fetal pregnancies, a current or previous history of schizophrenia, a major chronic disease, or obstetric and pregnancy complications (severe preeclampsia or eclampsia, placenta previa, placental abruption, or major postpartum infection) were excluded from the study because these conditions could compromise the accuracy of the PPD assessment".According to inclusion and exclusion criteria, a total of 200 subjects were recruited during the study period.

Two standardized self-report questionnaires devised by the researchers were used to analyze the patients' socio-demographic and clinical information. The first section looked at both socio-demographic and clinical characteristics. The second, which was utilized after birth, was only concerned with clinical difficulties. "The items on the questionnaire were designed to determine and assess the family's income level, the pregnant woman's and husband's occupations, as well as their educational levels, family type (nuclear or extended), whether the pregnancy was planned or unwanted, attitudes toward the pregnancy and the baby, the presence of domestic violence, and previous psychiatric and obstetric history". Physical violence in theprepartum and postpartum periods was assessed throughinterviews with the study subjects. The outcome of the pregnancy,the delivery method, and gender and health status of thebaby were obtained from hospital records.

Whooley* questions for depression were used to assess the PPD[10]. The questions were:

1. "During the last month, have you often been bothered by feeling down, depressed or hopeless? (YES/NO)"
2. "During the last month, have you often been bothered by little interest or pleasure in doing thing? (YES/NO)"

YES to one or both questions is take as a positive screen for depression.

Statistical analysis: Under the supervision of a statistician, the data was tallied on an excel sheet. For statistical analysis, the means and standard deviations of the measurements per group were employed (SPSS 22.00 for windows; SPSS inc, Chicago, USA). The chi-square test was used to measure the difference between the two groups, and the level of significance was chosen at $p<0.05$.

III. RESULTS:

In our study, out of 200 subjects, the incidence of PPD was found to be 34%. PPD was reported maximum among subjects having lower middle (40.86%) SES followed by upper-middle (37.5%). PPD was reported least among subjects having studied upto graduate/postgraduate level. Out of 85 subjects living in an extended family, 47.06% the subjects were having PPD. 61.90% of the subjects with positive family history were suffering from PPD. Statistically,a significant association was found between positive family history and PPD ($p<0.05$) while no such association of PPD was found with SES, education, religion, and type of family as $p>0.05$ (table 1).

International Journal Dental and Medical Sciences Research
Volume 4, Issue 4, July-Aug 2022 pp 148-153 www.ijdmsrjournal.com ISSN: 2582-6018

Table 1: Association of PPD with socio-demographic factors

	PPD	N	Planned		Unplanned	
			N	%	N	%
Pregnancy	Normal	132	27	64.29	105	66.5
	Illness Present	68	15	35.71	53	33.5
Total		200	42	100	158	100
Chi Square			2.91			
p-value			0.32			

	PPD	N	Vaginal		LSCS		Instrumental	
Mode Of Delivery	Normal	132	114	69.51	15	48.39	3	60
	Illness Present	68	50	30.49	16	51.61	2	40
Total		200	164	100	31	100	5	100
Chi Square			7.03					
p-value			0.009*					

	PPD	N	Yes		No	
H/O Family Conflict During Pregnancy	Normal	132	16	38.1	116	73.42
	Illness Present	68	26	61.9	42	26.58
Total		200	42	100	158	100
Chi Square			10.72			
p-value			0.006*			

	PPD	N	Pre term		Term		Post Term	
Term/Pre Term/ Post Term	Normal	132	7	46.67	123	67.58	2	66.67
	Illness Present	68	8	53.33	59	32.42	1	33.33
Total		200	15	100	182	100	3	100
Chi Square			6.71					
p-value			0.04*					

	PPD	N	Present		Absent	
Ante/Intra Partum Complications	Normal	132	6	50	126	67.02
	Illness Present	68	6	50	62	32.98
Total		200	12	100	188	100
Chi Square			4.87			
p-value			0.13			

*: statistically significant

In the present study, PPD was not significantly associated with planned/unplanned pregnancy. PPD was found among 51.61%, 40%, and 30.49% of the women who delivered through LSCS, instrumental and vaginal way respectively with a statistically significant difference as $p<0.05$. A statistically significant association was found between PPD and H/O family conflict during pregnancy as well as preterm delivery($p<0.05$) as shown in table 2.

Table 2: Association of PPD with pregnancy-related factors

	PPD	N	Planned		Unplanned	
			N	%	N	%
Pregnancy	Normal	132	27	64.29	105	66.5
	Illness Present	68	15	35.71	53	33.5
Total		200	42	100	158	100
Chi Square			2.91			
p-value			0.32			

	PPD	N	Vaginal		LSCS		Instrumental	
Mode Of Delivery	Normal	132	114	69.51	15	48.39	3	60
	Illness Present	68	50	30.49	16	51.61	2	40
Total		200	164	100	31	100	5	100
Chi Square			7.03					
p-value			0.009*					

	PPD	N	Yes		No	
H/O Family Conflict During Pregnancy	Normal	132	16	38.1	116	73.42
	Illness Present	68	26	61.9	42	26.58
Total		200	42	100	158	100
Chi Square			10.72			
p-value			0.006*			

	PPD	N	Pre term		Term		Post Term	
Term/Pre Term/ Post Term	Normal	132	7	46.67	123	67.58	2	66.67
	Illness Present	68	8	53.33	59	32.42	1	33.33
Total		200	15	100	182	100	3	100
Chi Square			6.71					
p-value			0.04*					

	PPD	N	Present		Absent	
Ante/Intra Partum Complications	Normal	132	6	50	126	67.02
	Illness Present	68	6	50	62	32.98
Total		200	12	100	188	100
Chi Square			4.87			
p-value			0.13			

International Journal Dental and Medical Sciences Research
Volume 4, Issue 4, July-Aug 2022 pp 148-153 www.ijdmsrjournal.com ISSN: 2582-6018

*: statistically significant

PPD was present among 76.47% and 23.53% of the subjects with and without NICU admission respectively ($p<0.05$) (table 3).

Table 3: NICU admission and other factors

	PPD	N	Present		Absent	
			N	%	N	%
NICU Admission	**Normal**	**132**	8	23.5	124	74.7
	Illness Present	**68**	26	76.5	42	25.3
Total		**200**	34	100	166	100
Chi Square			8.91			
p-value			0.007*			
	PPD	**N**	**Girl**		**Boy**	
Sex of Baby	**Normal**	**132**	60	63.2	72	68.6
	Illness Present	**68**	35	36.8	33	31.4
Total		**200**	95	100	105	100
Chi Square			3.64			
p-value			0.21			
	PPD	**N**	**Yes**		**No**	
Breast Feeding	**Normal**	**132**	132	66.7	0	0
	Illness Present	**68**	66	33.3	2	100
Total		**200**	198	100	2	100
Fisher Exact Test			3.89			
p-value			0.11			

*: statistically significant

IV. DISCUSSION:

A woman's life changes biologically, psychologically, and socially when she has a kid. These changes can lead to personal growth and enjoyment, but they can also lead to emotional anguish in women.In our study, the prevalence of PPD was found to be 34%. PPD affects roughly 10–15 percent of all moms, according to research performed in Western nations[11,12]. Previous well-designed investigations in Western nations have revealed that estimations of PPD are highly variable. Prevalence rates in non-Western nations also vary greatly, ranging from 16 percent in Zimbabwe to 22 percent in Jordan[13], thirty-four point seven percent in South Africa[14], and six to twenty-five percent in India[15]. PPD in Turkey has been estimated to be fourteen-forty point four percent[16].

Among their study, AbdulbariBeneret al[17] discovered a greater depression (eighteen points six percent) among Arab women during their postpartum period in comparison to anxiety & stress. Matthey et al[18] found a comparable level of psychological morbidity, with 17 percent of people suffering from depression and 13 percent from anxiety. In addition, a recent study revealed anxiety and depression rates of 12.7 percent and 17.4 percent, respectively[19]. In the early postpartum period, >ten percent of women suffer from sadness, anxiety, and stress, according to these research findings.Research employing the DASS-21 indicated that seven percent of women exhibited anxiety and depressive symptoms during their

postpartum period, indicating a reduced prevalence[20]. Postpartum depression symptoms were found to be lowest among European and Australian women, and greatest among moms from non-Western nations such as Taiwan and India, according to Affonsoet al[21]. In comparison to non-Western groups, Asian women had a greater rate of postpartum depression and anxiety. Cultural factors, such as connections with in-laws and the impact of extended family members, might explain why Asian women have a greater frequency of psychological discomfort.

In our study, PPD was found to be significantly associated with various factors viz. family history, H/O family conflict during pregnancy as well as preterm delivery, mode of delivery, and NICU admission.Psychopathology in the family has been recognized as a substantial risk factor for PPD fora long time. A hereditary component has been discovered in familial research, contributing to a mental risk for postpartum mood illness[22].

Baker et al[23] found that postpartum mental problems are linked to a history of marital strife, a bad parental relationship experienced as a child, low self-esteem, low socioeconomic position, undesired pregnancy, and stressful life events during pregnancy. Unplanned pregnancy and bad relationships with their mothers-in-law were the most prevalent life events that impacted postpartum women, according to AbdulbariBeneret al[17].Stay-at-home mothers, women exposed to violence during pregnancy or the postpartum period, or women with a history of PMS, unplanned pregnancies, previous psychiatric history (particularly previous depressive episodes), depressive symptoms, or suicidal thoughts in pregnancy have higher rates of PPD than other women, according to Turkcapar et alstudy[24]. Suicidal thoughts, a history of PPD, and domestic violence were the most strongly linked variables to PPD. Previous psychiatric history, depressive symptoms during pregnancy, a history of PMS, unexpected pregnancies, and unhappiness with the pregnancy were all important variables.

Because of the high frequency of psychological morbidity among mothers during the postpartum period and its link to social health concerns, health care providers must be aware of a wide variety of social health difficulties. The current study suggests that healthcare providers participate in education programs to raise their knowledge of the postpartum mental disorder. Women should be given the opportunity and support to discuss openly their feelings, particularly difficult life events, with their health care professionals. Women at risk of mental problems can be identified through prenatal screening programs.

The limitations of the study need to be noted. The study did not assess the prevalence of PPD in the studied women during their antenatal period. Also,information like paternal stress was not includedin the questionnaire. Another limitation is the small sample size.

V. CONCLUSION:

In general, the findings of our study are in line with those found in the literature.Factors such as family history, H/O family conflict during pregnancy as well as preterm delivery, mode of delivery, and NICU admission were significantly associated with PPD. Identifying postnatal distress correlations can lead to a more in-depth examination to determine contributing causes. Finally, preventative efforts aimed at reducing or eliminating the negative effects of such contributing variables can significantly enhance women's emotional well-being during the sensitive postpartum period.

REFERENCES

[1]. Johnson J, Weissman MM, Klerman GL. Service utilization and social morbidity associated with depressive symptoms in the community.JAMA. 1992;267(11):1478–1483.

[2]. Braveman P, Marchi K, Egerter S, et al. Poverty, near poverty, and hardship around the time of pregnancy. Matern Child Health J.2010;14(1):20–35.

[3]. Yelland J, Sutherland G, Brown SJ. Postpartum anxiety, depression and social health: findings from a population-based survey of Australianwomen. BMC Public Health. 2010;10:771.

[4]. Austin MP, Hadzi-Pavlovic D, Priest SR, et al. Depressive and anxiety disorders in the postpartum period: how prevalent are they and can we improve their detection? Arch WomensMent Health. 2010;13(5):395–401.

[5]. Stewart DE, Robertson E, Dennis CL, Grace SL, Wallington T. Postpartum depression: literature review of risk factors and interventions. Toronto: University Health Network Women's Health Program; 2003. Available from: http://www.who.int/mental_health/prevention/suicide/lit_review_postpartum_depression.pdf [cited 2021 May 16].

[6]. Di Florio A, Smith S, Jones I. Postpartum psychosis. The Obstetrician &Gynaecologist. 2013;15(3):145–50.
[7]. Surkan PJ, Kennedy CE, Hurley KM, Black MM. Maternal depression and early childhood growth in developing countries: systematic review andmeta-analysis. Bull World Health Organ. 2011;89(8):608–15D.
[8]. Dennis CL, Stewart DE. Treatment of postpartum depression, part 1: a critical review of biological interventions. J Clin Psychiatry. 2004;65(9):1242–51.
[9]. Turkcapar AF, Kadıoğlu N, Aslan E, Tunc S, Zayıfoğlu M, Mollamahmutoğlu L. Sociodemographic and clinical features of postpartum depression among Turkish women: a prospective study. BMC Pregnancy & Childbirth. 2015;15(1):1-8.
[10]. Howard LM, Ryan EG, Trevillion K, et al. Accuracy of the Whooley questions and the Edinburgh Postnatal Depression Scale in identifying depression and other mental disorders in early pregnancy. The British Journal of Psychiatry. 2018;212(1):50-6.
[11]. Kumar R, Robson KM. A prospective study of emotional disorders in childbearing women. Study of emotional disorders in childbearing women.Br J Psychiatry. 1984;144:35–47.
[12]. O'Hara MW, Swain AM. Rates and risk of rates and risk of postpartumdepression: a meta-analysis. Int Rev Psychiatry. 1996;88:37–54.
[13]. Mohammad KI, Gamble J, Creedy DK. Prevalence and factors associated with the development of antenatal and postnatal depression amongJordanian women. Midwifery. 2011;27:238–45.
[14]. Cooper PJ, Campbell EA, Day A, Kennerley H, Bond A. Non-psychotic psychiatric disorder after childbirth: a prospective study of prevalence,incidence, course and nature. Br J Psychiatry. 1988;152:799–806.
[15]. Dubey C, Gupta N, Bhasin S, Muthal RA, Arora R. Prevalence and associated risk factors for postpartum depression in women attending a tertiaryhospital, Delhi, India. Int J Soc Psychiatry. 2012;58:577–80.
[16]. Ekuklu G, Tokuc B, Eskiocak M, Berberoglu U, Saltik A. Prevalence of postpartum depression in Edirne, Turkey, and related factors. J Reprod Med.2004;49:908–14.
[17]. Bener A, Gerber LM, Sheikh J. Prevalence of psychiatric disorders and associated risk factors in women during their postpartum period: a major public health problem and global comparison. International journal of women's health. 2012;4:191.
[18]. Matthey S, Barnett B, Howie P, Kavanagh DJ. Diagnosing postpartum depression in mothers and fathers: whatever happened to anxiety?J Affect Disord. 2003;74(2):139–147.
[19]. Yelland J, Sutherland G, Brown SJ. Postpartum anxiety, depression and social health: findings from a population-based survey of Australianwomen. BMC Public Health. 2010;10:771.
[20]. Miller RL, Pallant JF, Negri LM. Anxiety and stress in the postpartum: is there more to postnatal distress than depression? BMC Psychiatry. 2006;6:12.
[21]. Affonso DD, De AK, Horowitz JA, Mayberry LJ. An international study exploring levels of postpartum depressive symptomatology. J Psychosom Res. 2000;49(3):207–216.
[22]. Corwin EJ, Kohen R, Jarrett M, Stafford B. The heritability of postpartum depression. Biol Res Nurs. 2010;12, 73–83.
[23]. Baker L, Cross S, Greaver L, Wei G, Lewis R; Healthy Start CORPS. Prevalence of postpartum depression in a native American population. Matern Child Health J. 2005;9(1):21–25.
[24]. Turkcapar AF, Kadıoğlu N, Aslan E, Tunc S, Zayıfoğlu M, Mollamahmutoğlu L. Sociodemographic and clinical features of postpartum depression among Turkish women: a prospective study. BMC Pregnancy & Childbirth. 2015;15(1):1-8.