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Original Research Article

Postpartum depression associated with sex preference among rural Bangladeshi mothers

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ABSTRACT

Background: Maternal depression, particularly postpartum depression (PPD), significantly impacts women's well-being and can have long-term effects on child health, development, and behavior. The purpose of this study was to evaluate the association between postpartum depression and sex preference among rural Bangladeshi mothers. The aim of the study was to evaluate the association between postpartum depression and sex preference among rural Bangladeshi mothers.
Methods: This cross-sectional study, conducted in Banchanagar village, Laxmipur District, Bangladesh, from January to December 2014, focused on postpartum depression among rural mothers with children aged 0-12 months and its association with sex preference. A total of 219 postpartum women, aged 15-49 years, participated. Data were collected using a pre-tested, semi-structured questionnaire, including the Edinburgh postnatal depression scale (EPDS), with double data entry and analysis in SPSS.
Results: Of the 219 mothers, most had a wanted pregnancy (87.20%), with 60% experiencing complications during pregnancy. Most had no family history of depression, and a majority showed a low probability of depression. Over half considered the sex of the child, with most satisfied with it. Logistic regression showed that the sex of the child, the husband's views, and the mother's satisfaction were significant factors influencing postpartum depression.
Conclusions: In rural Bangladesh, postpartum depression is notably higher among mothers who give birth to female children, driven by strong cultural preferences for male offspring and negative family reactions toward daughters.

Keywords: Child development, Maternal mental health, Postpartum depression, Rural Bangladesh, Sex preference

INTRODUCTION

Depressive disorders significantly impact women's lives, with maternal depression posing risks not only to women's well-being but also to their children's health, development, and behavior. Addressing maternal depression is essential to mitigate these intergenerational effects. Maternal depression may be more prevalent in low- and middle-income countries, where nearly 90% of the world's children live.[1] Prevalence rates for perinatal depression vary, with estimates for minor and major depression ranging from 6.5% to over 12.9%, depending on factors such as population characteristics, assessment tools, and the timing of the assessment.[2]

Postpartum depression (PPD) encompasses various mood disorders that arise after childbirth. PPD affects 10-15% of all new mothers, but this number may rise to as high as 35% in certain demographic groups. One-third of women scoring within a depressive range at 8 months postpartum remained depressed 12-18 months later. PPD is underdiagnosed and remains the most common complication of childbirth and the most prevalent perinatal psychiatric disorder, with women at greatest risk during

their first postpartum year.[3] The postnatal period is when women readjust physiologically and psychologically to motherhood. PPD is an intense and pervasive illness characterized by severe mood swings and is more serious and persistent than postpartum blues. Postpartum depression develops gradually and can persist for 3 to 6 months. In some cases, it may last throughout the first year of the baby's life.[4]

About half of all women with a previous history of depression will experience perinatal depression, and 30% of women diagnosed with PPD will experience their initial onset of depression during pregnancy. Women who have experienced an episode of postpartum depression (PPD) have a 25% risk of experiencing another episode unrelated to childbirth, and a 40% risk of experiencing another episode of postpartum depression.[5] PPD is one of the most common psychiatric disorders of pregnancy and puerperium, influenced by a range of biological, psychological, and social factors. In the male-dominated societies of Asia, a mother's preference for a male child may lead to psychological distress if unmet.[6] PPD has a universal prevalence of around 13%, with affected women experiencing significant declines in cognitive and emotional functions that may impact mother-infant attachment and the child's development.[7] Mothers face unique stressors during the postpartum period, which can influence their experience of PPD, especially when cultural and socioeconomic factors are at play.[8]

Strong gender preferences, along with practices like infanticide, sex-selective abortions, or the use of sex-selection technologies, can severely distort the natural sex ratio. Parents' preferences for a child's gender are often rooted in cultural, religious, and community norms.[9] Motherhood can be both rewarding and fulfilling. However, the daily stresses and demands of raising children can affect overall well-being. The postnatal period can be especially difficult for women already experiencing mental health problems and for those with a history of serious mental health problems.[10]

Sex preference for children is generally not considered in western societies. Evidence from non-western countries shows varying patterns, but when sex preference exists, a strong son preference is often dominant, though a preference for having at least one girl and one boy is also common. PPD is an important and prevalent health issue for many women across diverse cultures. Postpartum depression is concerning due to its well-documented health impacts on both mother and infant. Although women who have suffered from PPD are twice as likely to experience future episodes of depression over a 5-year period, infants are particularly vulnerable due to impaired maternal-infant interactions and negative perceptions of infant behavior.[11]

Pregnancy and childbirth are significant events in a woman's life, marked by considerable physical and psychological changes. In developing countries, the focus has understandably been on women's physical health, with comparatively little research exploring women's experiences of pregnancy and childbirth.[12] Postpartum depression can be debilitating for the mother, causing feelings of hopelessness and sadness during a time that is widely considered joyful. Women who experience PPD are also more likely to suffer from recurrent depressive episodes, whether postnatally or otherwise. Many women with untreated PPD suffer from suicidal thoughts and physical illness.[13] Depression associated with childbearing is particularly significant as the first year of childrearing brings additional responsibilities, personal disruptions, and consequences in relationships and material circumstances. The development of PND cannot be predicted accurately at present; therefore, pregnant women and their families need information about postnatal emotional disorders, useful self-help strategies, and guidance for finding appropriate professional help.[14] The purpose of this study is to assess the association between postpartum depression and sex preference among rural Bangladeshi mothers, with a focus on understanding how these factors influence maternal mental health and child development.

Objectives

The aim of the study was to evaluate the association between postpartum depression and sex preference among rural Bangladeshi mothers.

METHODS

This cross-sectional study was conducted in Banchanagar village, Laxmipur Sadar Upazila, Laxmipur District, Bangladesh, from January to December 2014, focusing on postpartum depression among rural mothers with children aged 0-12 months and examining any association with sex preference. The study targeted postpartum women aged 15-49 years who had given birth within the study period, with a total of 219 eligible mothers participating.

Inclusion criteria

Postnatal mothers with at least one child under 1 year. Mothers who provided consent and could understand the study's purpose. Long-term residents of the area (at least five years).

Exclusion criteria

Mothers who declined participation or were unable to understand the study's purpose. Those with physical or mental illness during data collection.

Data were collected using a semi-structured, pre-tested questionnaire covering socio-demographic details, obstetric history, and maternal health factors, with the Edinburgh postnatal depression scale (EPDS) screening for postpartum depression. Interviews in Bengali lasted about an hour per participant. The questionnaire, pretested

and modified based on feedback, was translated into Bengali. Data, initially collected in Bengali, were translated into English and entered into SPSS for analysis. Quality assurance included double data entry. Descriptive statistics such as frequencies, percentages, means, medians, modes, ranges, and standard deviations were used. The chi-square test assessed associations between postpartum depression and sex preference, while logistic regression estimated the strength of these associations, with significance at $p<0.05$. Results were presented through various charts and tables. Daily checks ensured data completeness and consistency, with follow-ups for any missing information. The dependent variable was postpartum depression. Independent variables included socio-demographic, reproductive, pregnancy-related, gender-based, cultural, psychosocial factors, and depression-related aspects. Postpartum depression (PPD) was defined as a clinical depression affecting women after childbirth, measured using EPDS, with the postnatal period estimated as 1 year after delivery. Family was defined as a primary unit in all societies, consisting of biologically related individuals living together.

RESULTS

Figure 1 shows that among the 219 study subjects, the majority of mothers had a wanted pregnancy (87.20%), while a smaller proportion had an unwanted pregnancy (12.80%).

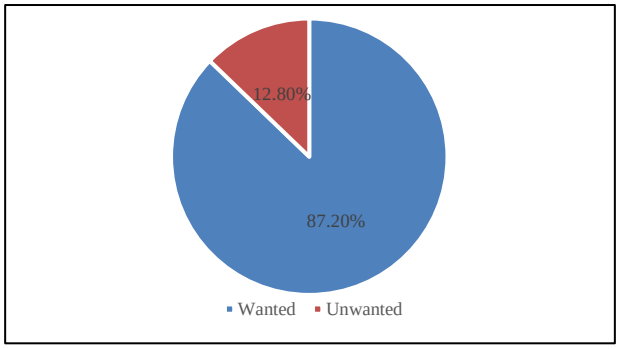

Figure 1: Distribution of mothers by pregnancy wanted or unwanted.

Table 1: Distribution of mothers by complications during different stages of maternity (n=219).

Variables		Frequency	Percentage
Complication during pregnancy	Yes	133	60.73
	No	86	39.27
Complication during delivery	Yes	86	39.27
	No	133	60.73
Complication during postnatal	Yes	41	18.72
	No	178	81.28

Table 1 shows the distribution of mothers by complications during different stages of maternity. Among the 219 mothers, 133 (60.73%) experienced complications during pregnancy, while 86 (39.27%) reported no complications. During delivery, the distribution shifted, with 86 (39.27%) mothers experiencing complications and the majority, 133 (60.73%), reporting no issues. In the postnatal period, most mothers, 178 (81.28%), did not experience complications, whereas a smaller portion, 41 (18.72%), reported postnatal complications.

Table 2: Distribution of mothers by family history of depression (n=219).

Family history of depression	Frequency	Percentage
Yes	14	6.39
No	181	82.65
Not sure	24	10.96
Total	219	100.00

Table 2 shows the distribution of family history of depression among the mothers. The majority, 181 (82.65%), reported no family history of depression, while 14 (6.39%) indicated a positive family history. Additionally, 24 (10.96%) were unsure about any family history of depression.

Table 3: Distribution of mothers by level of depression according to sex (n=219).

Level of depression	Frequency	Percentage
Low probability of depression	116	53.00
Most likely just dealing with a new baby or the baby blues	51	23.30
Signs leading to the possibility of postpartum depression	30	13.70
High probability of experiencing clinical depression	22	10.00
Total	219	100.00

Table 4: Distribution of mothers by consideration and preference regarding the sex of the child before birth.

Variables		Frequency	Percentage
Think about sex of child	Yes	123	56.16
	No	96	43.84
	Total	219	100.00
Sex preference before childbirth	Male child	63	51.22
	Both	27	21.95
	Female child	23	18.70
	Any one	7	5.69
	No opinion	3	2.44
	Total	123	100.00

Table 3 shows the distribution of depression levels related to sex preference among the 219 study subjects. Among

the participants, 116 (53.00%) mothers had a low probability of depression. A significant proportion, 51 (23.30%), were most likely just dealing with a new baby or experiencing the "baby blues". Additionally, 30 (13.70%) mothers showed signs leading to a possible postpartum depression, while 22 (10.00%) had a high probability of experiencing clinical depression.

Table 5: Distribution of mothers and their husbands by satisfaction with the sex of the child (n=219).

Variables		Frequency	Percentage
Mother's satisfaction with sex of child	Very satisfied	163	74.43
	Somewhat satisfied	4	1.83
	Not satisfied	51	23.29
	No response	1	0.46
	Total	219	100.00
Husband's satisfaction with sex of child	Very satisfied	153	69.86
	Somewhat satisfied	41	18.72
	Not satisfied	23	10.50
	Not at all satisfied	2	0.91
	Total	219	100.00

Table 6: Association between consideration or desire regarding sex preference and satisfaction with the sex of the child and level of depression.

Variables		Depression (%)		Total (%)	χ^2	P value
		Had depression	Had no depression			
Thinking about preference of sex	Yes	38 (39.58)	58 (60.42)	96 (100.00)	23.683	0.000
	No	14 (11.38)	109 (88.62)	123 (100.00)		
	Total	52 (23.74)	167 (76.26)	219 (100.00)		
Satisfied about sex of child	Satisfied	23 (14.11)	140 (85.89)	163 (100.00)	32.675	0.000
	Not satisfied	29 (51.79)	27 (48.21)	56 (100.00)		
	Total	52 (23.74)	167 (76.26)	219 (100.00)		
Husband's satisfaction with sex of child	Satisfied	33 (17.01)	161 (82.99)	194 (100.00)	42.562	0.000
	Not satisfied	19 (76.00)	6 (24.00)	25 (100.00)		
	Total	52 (23.74)	167 (76.26)	219 (100.00)		
Family members' satisfaction with sex of child	Satisfied	34 (17.62)	159 (82.38)	193 (100.00)	33.713	0.000
	Not satisfied	18 (69.23)	8 (30.77)	26 (100.00)		
	Total	52 (23.74)	167 (76.26)	219 (100.00)		

Table 7: Logistic regression analysis showing the effect of independent variables on mothers' depression status (1. had depression, 2. had no depression).

Independent variables	B	SE	Wald	df	Sig.	Exp(B)	95% CI for Exp(B)	
							Lower	Upper
Age of the mother	1.17	0.78	2.27	1.00	0.13	0.31	0.07	1.42
Age of the husband	0.98	0.77	1.64	1.00	0.20	2.67	0.59	12.04
Duration of marriage	1.19	0.80	2.18	1.00	0.14	3.27	0.68	15.80
Sex of the child	2.89	1.18	5.96	1.00	0.01	18.02	1.77	183.46
Number of children	0.09	0.68	0.02	1.00	0.90	0.92	0.24	3.49
Age of the first child	0.45	0.51	0.77	1.00	0.38	0.64	0.23	1.74
Thoughts about the sex of the child	0.34	0.61	0.31	1.00	0.57	0.71	0.21	2.36
Husband's thoughts about the sex of the child	1.69	0.69	5.92	1.00	0.01	0.18	0.05	0.72
Satisfaction with the sex of the child	2.16	1.03	4.38	1.00	0.03	0.11	0.01	0.87
Husband's satisfaction with the sex of the child	1.76	1.10	2.56	1.00	0.11	5.80	0.67	50.05
Family members' sex preference	0.57	1.15	0.24	1.00	0.62	1.76	0.19	16.72
Consent	0.49	1.10	0.20	1.00	0.65	1.64		

Table 4 shows the distribution of mothers based on their consideration and preference regarding the sex of the child before birth. Among the 219 study participants, 123 (56.16%) mothers had thought about the sex of the child, while 96 (43.84%) had not. Regarding the sex preference before childbirth, 63 (51.22%) mothers preferred a male child, 27 (21.95%) preferred both, 23 (18.70%) preferred a female child, 7 (5.69%) had no preference between male or female, and 3 (2.44%) mothers had no opinion. This preference was recorded among the 123 mothers who had thought about the sex of the child.

Table 5 shows the distribution of mothers and their husbands based on their satisfaction with the sex of the child. Among the 219 study participants, 163 (74.43%) mothers were very satisfied with the sex of their child, 51 (23.29%) were not satisfied, 4 (1.83%) were somewhat satisfied, and 1 (0.46%) had no response. Regarding their husbands' satisfaction, 153 (69.86%) were very satisfied, 41 (18.72%) were somewhat satisfied, 23 (10.50%) were not satisfied, and 2 (0.91%) were not at all satisfied.

Table 6 shows the association between various factors regarding the sex of the child and the level of depression among mothers. Among the 219 participants, 38 (39.58%) of those who thought about the sex of the child experienced depression, compared to 14 (11.38%) of those who did not think about it (χ^2=23.683, p=0.000). Regarding satisfaction with the sex of the child, 29 (51.79%) of those dissatisfied with the sex of their child were depressed, while 23 (14.11%) of those satisfied were depressed (χ^2=32.675, p=0.000). Among the 194 mothers whose husbands were satisfied with the sex of the child, 33 (17.01%) had depression, while 19 (76.00%) of those whose husbands were dissatisfied experienced depression (χ^2=42.562, p=0.000). Lastly, 18 (69.23%) mothers whose family members were dissatisfied with the sex of the child had depression, compared to 34 (17.62%) of those whose family members were satisfied (χ^2=33.713, p=0.000).

Table 7 presents the results of logistic regression analysis showing the independent effects of various parameters on postpartum depression outcomes in rural mothers. The analysis examines the strength of association with eleven independent variables, including the age of the mother, age of the husband, duration of marriage, sex of the child, number of children, age of the first child, mother's thoughts or desire about the sex of the child, husband's thoughts or desire about the sex of the child, satisfaction with the sex of the child for both the mother and the husband, and family members' sex preference. Among these variables, sex of the child, husband's thoughts or desire about the sex of the child, and mother's satisfaction with the sex of the child were found to have a significant influence on postpartum depression in rural mothers.

DISCUSSION

The current study was a cross-sectional study conducted among rural mothers with babies aged 1 to 12 months to determine sex preference in relation to their postpartum depressive status in the Laxmipur district. The total sample size was 219, which were selected purposively. Data were collected through face-to-face interviews with the mothers using a semi-structured questionnaire. The presence of postnatal depression was measured using the validated Edinburgh postnatal depression scale (EPDS). Mothers who scored above 12 were considered likely to be suffering from depressive illness of varying severity. The socio-economic and demographic characteristics of the mothers were also recorded to detect any influence or explore relationships between socio-economic indicators and postnatal depression. The purpose of this final chapter is to provide a summary of the study and a discussion of the research findings presented in chapter four.

In our study, 87.2% of mothers reported having planned pregnancies, while 12.8% had unplanned pregnancies. This finding is significant in the context of postpartum depression, as pregnancy planning can influence maternal well-being. The predominance of planned pregnancies suggests that many rural Bangladeshi mothers are intentional in their family planning, potentially mitigating some risk factors for postpartum depression. However, it also highlights the need for continued support for those with unplanned pregnancies, who may experience additional psychological stress, particularly related to societal expectations of sex preference. These findings align with the study by Coates et al.[15] They found that unplanned pregnancies often resulted in higher levels of psychological distress and were linked to a greater incidence of postpartum depression. Similar to our findings, Coates et al emphasized the importance of intentional family planning in reducing the risk of postpartum depression and highlighted the need for targeted support for women with unplanned pregnancies.[15]

In the present study, the proportion of mothers according to their sex preference was as follows: most mothers preferred a male child (proportion =0.51), followed by those who preferred both genders (proportion =0.22), those who preferred a female child (proportion =0.19), those with no preference (proportion =0.06), and the least preferred were those with no opinion (proportion =0.02). In another study conducted on 1000 UP migrant families from Uttar Pradesh who lived in various localities of Ludhiana, Punjab, a significant preference for a male child was found. Among the 1000 families interviewed, 92.80% felt that a male child was necessary and strongly preferred a male child, while only 7.20% preferred both genders equally, and none had a preference for a female child.[16] The findings of these studies did not correlate with those of the present study.

In our study, 74.43% of mothers reported being very satisfied with the sex of their child, while 23.29% expressed dissatisfaction. Similarly, 69.86% of husbands were very satisfied, with 10.50% not satisfied. These results suggest that most parents are content with their child's sex, potentially reducing post-birth emotional

stress. However, the dissatisfaction among some parents raises concerns about the influence of sex preference on postpartum mental health. These findings align with Fagan et al, who found that higher satisfaction with paternal involvement significantly reduced postpartum depressive symptoms.[17] This highlights the need to address parental dissatisfaction to mitigate postpartum depression risk, particularly in rural areas with strong gender expectations.

In the present study, the majority of mothers (82.6%) had no family history of depression, 11% were unsure, and 6.4% had a history of depression. A family history of depression was found in 64.3% of mothers. Most mothers (74.4%) had not suffered from antenatal depression, while 15.1% had suffered from antenatal depression and 10.5% were unsure. A majority of mothers (92.2%) had not experienced any serious life events. In another study, 4 out of 25 women assessed following delivery were depressed at the antepartum assessment. The rates of antepartum depression were similar for the 384 women assessed before delivery and the 359 women followed up after delivery.18 These findings did not correlate with those of the present study.

In the present study, among 219 study subjects, the level of depression concerning sex preference was as follows: 53% had a low probability of depression, 23.3% had the possibility of just dealing with a new baby (baby blues), 13.7% showed signs leading to possible postpartum depression, and 10% had a high probability of experiencing clinical depression. Another study showed no significant interaction between maternal depressive symptoms and infant sex [F (1, 94) =0.69; p=0.56]. A two-way ANOVA showed no effects of maternal depressive symptoms [F (1, 96) =0.45; p=0.51] or infant sex [F (1, 96) =0.88; p=0.35] on the GRS.[19] These study findings did not correlate.

In the present study, depression levels were higher (27.2%) among mothers with a total monthly family income of more than 10,000 taka, but no significant relationship was found between family income and depression level (p=0.31). Depression levels were higher (26.3%) in families with more than 4 members, though no significant relationship was found (p=0.25). In households with pakka houses, the number of depressive mothers (31%) was higher than in kacha houses (22.6%), but no statistical significance was found (p=0.32). Depression levels were higher (27.5%) among mothers with pregnancies over 20 years old, but no significant association was found (p=0.32). Depression levels were higher (34.7%) in mothers with a first child over 5 years old, and a statistically significant relationship was found between the age of the first child and depression (p=0.008). Depression levels were higher (33.3%) among mothers whose youngest child was under 6 months old, but no significant relationship was found (p=0.44). Depression levels were higher (36.3%) among mothers married for more than 5 years, with a highly significant relationship between marital duration and depression (p=0.000). Depression levels were higher (34.2%) among mothers who had more than 2 pregnancies, and a statistically significant relationship was found between the number of pregnancies and depression (p=0.008). Depression levels were higher (39.4%) among mothers who had a preference for sex, with a highly significant association between preference for sex and depression (p=0.008). Depressive mothers were higher (51.8%) among those dissatisfied with the sex of their child, and a highly significant relationship was found between dissatisfaction with child sex and depression (p=0.008). Depressive mothers were higher (33.6%) among those whose husbands had preferences about the sex of the child, but no significant relationship was found between husband's preference and maternal depression (p=0.05). Depressive mothers were higher (76%) among those whose husbands were dissatisfied with the sex of their child, and a highly significant association was found between husband's satisfaction and maternal depression (p=0.000). Similarly, depressive mothers were higher. These findings are consistent with those reported by Gupta et al, who also found that dissatisfaction with the child's sex was significantly associated with higher levels of postpartum depression.[20] Their study highlighted that socio-economic factors, marital duration, and family size also played crucial roles in maternal mental health, aligning with our results. This emphasizes the need for targeted support for mothers in similar socio-economic and cultural contexts to mitigate the risk of postpartum depression.

This study had some limitations. As this study was part of a postgraduate learning process, the study population was purposively selected from a specific rural community for convenience. Therefore, the findings may not be fully representative of the broader population of Bangladesh. Due to time and resource constraints, it was not possible to cover the entire community, and the study included 219 respondents. Only a sample was taken within the given time frame, so the results may not align with those of a large-scale survey. Information regarding depression, family history of depression, and breastfeeding history was gathered through a questionnaire based on the mothers' recollections. This approach introduced the possibility of recall bias, as well as the potential for over- or under-reporting. Due to the respondents' illiteracy and limited understanding, difficulties arose in obtaining accurate responses, and some participants were unable to provide complete information. This study was cross-sectional in nature. However, a case-control study would have been more suitable to address the study objectives in greater depth. Future research that addresses the limitations mentioned above would yield results that are more generalizable and applicable in practical settings.

CONCLUSION

Postpartum depression can occur at any time during the first postpartum year. This population-based study in rural Bangladesh confirms that depression and anxiety are common during late pregnancy and the postpartum period.

Mothers with depressive symptoms were found to be poorer and less educated. The study also revealed a strong preference for male children among both mothers and husbands, which is associated with postpartum depression. Women who already have a female child experience greater stress due to their desire for a male infant. If the child is a girl, the risk of depression is higher, and mothers may be blamed for the birth of a female child. A significant proportion of mothers with male child preference experienced postpartum depression. Son preference is deeply rooted in the cultural background of families and nations. This study concludes that the risk of postpartum depression is higher in Bangladeshi women who give birth to a female child compared to those who give birth to a male child, and this is linked to negative reactions from family members toward the birth of a female baby.

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REFERENCES

1. Wachs TD, Black MM, Engle PL. Maternal depression: a global threat to children's health, development, and behavior and to human rights. Child Develop Perspect. 2009;3(1):51-9.
2. Anderson CA. Using the Edinburgh postnatal depression scale to screen for symptoms of depression among Latina, African American and Caucasian Adolescents. South Online J Nurs Res. 2008;10(1):Art-03.
3. Thurgood S, Avery DM, Williamson L. Postpartum depression (PPD). Am J Clin Med. 2009;6(2):17.
4. Jose D. Comparison of postpartum depression among primi and multi para mothers in a view to develop self-instructional module for family members on prevention of postpartum depression. Rajiv Gandhi University of Health Science. 2009.
5. Cox JL, Murray D, Chapman G. A controlled study of the onset, duration and prevalence of postnatal depression. Br J Psychiatr. 1993;163(1):27-31.
6. Kar SK, Kumar R, Jyrwa S. Unmet expectations from pregnancy attributing to post-partum depression: an impact of gender discrimination. Indian J Appl Res. 2013;3(5):504-5.
7. Tortajada S, García-Gomez JM, Vicente J, Sanjuán J, de Frutos R, Martín-Santos R, et al. Prediction of postpartum depression using multilayer perceptrons and pruning. Methods Inform Med. 2009;48(03):291-8.
8. Crist NG. Women's perceptions of postpartum stress: A narrative analysis. University of South Florida; 2010.
9. Hank K, Kohler HP. Gender preferences for children in Europe: Empirical results from 17 FFS countries. Demogr Res. 2000;2.
10. Tsivos Z, Wittkowski A, Calam R, Sanders M. Postnatal depression- the impact for women and children and interventions to enhance the mother-infant relationship. Perspective. 2011:16-20.
11. Dennis CL, McQueen K. The relationship between infant-feeding outcomes and postpartum depression: a qualitative systematic review. Pediatrics. 2009;123(4):e736-51.
12. Sawyer A, Ayers S, Smith H, Sidibeh L, Nyan O, Dale J. Women's experiences of pregnancy, childbirth, and the postnatal period in the Gambia: a qualitative study. British J Health Psychol. 2011;16(3):528-41.
13. Tranmer AS. Barriers to care for women with postpartum depression: an integrative review of the qualitative literature. Montana State University; 2013.
14. Pope S, Pope S. Postnatal depression: a systematic review of published scientific literature to 1999: an information paper. National Health and Medical Research Council; 2000.
15. Coates R, Ayers S, De Visser R. Women's experiences of postnatal distress: a qualitative study. BMC Pregnancy Childbirth. 2014;14:1-4.
16. Nag A, Singhal P. Gender preference towards male child among Uttar Pradesh migrants in Ludhiana, Punjab, India. Anthropologist. 2013;15(2):219-23.
17. Fagan J, Lee Y. Perceptions and satisfaction with father involvement and adolescent mothers' postpartum depressive symptoms. J Youth Adolesc. 2010;39:1109-21.
18. Patel V, Rodrigues M, DeSouza N. Gender, poverty, and postnatal depression: a study of mothers in Goa, India. Am J Psychiatr. 2002;159(1):43-7.
19. Edhborg M, Hogg B, Nasreen HE, Kabir ZN. Impact of postnatal maternal depressive symptoms and infant's sex on mother-infant interaction among Bangladeshi women. Health. 2013;5(02):237.
20. Gupta S, Kishore J, Mala YM, Ramji S, Aggarwal R. Postpartum depression in north Indian women: prevalence and risk factors. J Obstet Gynecol India. 2013;63:223-9.

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