

Factors Associated with Postpartum Depression among Women at Specialty Maternity Hospitals Omdurman –Locality 2022

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Abstract

Background: Postpartum Depression is one of the major psychological disorders worldwide that affects both mothers and infants. For prevention and screening to be more effective, a fuller understanding of postpartum depression risk factors is necessary. **Aim:** This study aimed to identify factors associated with postpartum depression among women. **Methods:** This was a hospital –based cross-sectional which was carried out in two maternity hospitals. It included (142) participants and was selected through systematic sampling method. Edinburgh Postnatal depression scale was used to identify mothers at risk of postnatal depression. A score of ≥ 14 was considered as positive for depressive symptom and a standardized administered questionnaire and data were analyzed by the Statistical Package of Social Sciences, version 25 and a significance test was checked by chi-square test, data were presented in form of tables and cross tabulations **Results:** (49%) is the prevalence of common risk factors of postpartum depression, 33.8 % of the participants were aged between 20 and 24 years, 34.5% were university graduates, 50.75 had wanted and un planned pregnancy, 54.9% multiparity, 20.4 had history of family depression, 57% received support from their husband and almost 97.2% had married

.Moreover, postpartum depression was found to be strong statistically association between marital status and family history of postpartum depression (p-value 0.00). **Conclusion:** This study identified certain factors that have been associated with postpartum depression (socio -demographic factors as :age of women at the time of delivery, lower socio-economic status, women level of education. Obstetric factors as parity, un planned current pregnancy and type of delivery, and psychological risk factors : lack of social support and history of family depression. In order to prevent postpartum depression, our findings **recommend** that pregnant women's mental health be tracked and that health care service—particularly supportive birth care—be improved.

Key words: Postpartum depression, Risk factors, Women

Introduction:

Postpartum depression (PPD); a non-psychotic depressive disorder classified by the Diagnostic and Statistical Manual of Mental Disorders as an episode of Major Depressive Disorder that begins within 4 weeks of childbirth (1). Study indicated that there was no greater risk of adverse maternal and infant outcomes in postpartum women who received adequate screening to identify pregnant and postpartum women with

depressive symptoms (1). Another study stated that adequate screening to identify pregnant and postpartum women with depressive symptoms is recommended to provide diagnosis, treatment, and follow-up care to reduce poor outcomes (2).

The prevalence of postnatal depression is especially high in developing countries, where psychological issues are mostly ignored. There is a lack of proper information exchange between the health care providers and mothers regarding pregnancy and postpartum period mostly among mothers having physical disabilities (3). The presence of high prevalence of PPD may interrupt the attainment of millennium developmental **goal 4** concerning the reduction in child mortality and the millennium developmental, goal 5 related to maternal reproductive health improvement; therefore, planning interventions are needed to be carried out (4). There has been an extensive research on risk factors for post-partum depression over the span of 20 years (5). There are many risk factors associated with postpartum depression, including; psychological, pregnancy and birth –related factors, social and Environmental factors, biological and demographic factors, and genetic factors (6). This paper aims to identify the multifaceted factors associated with postpartum depression.

Methods

This study was a descriptive cross-sectional hospital based study. It carried out in two maternity hospitals; Omdurman Maternity

Hospital and Omdurman New Saudi Hospital, which provided maternity healthcare services to women from different states of the country. The targeted population was composed of all women found in the post natal ward at selected hospitals at 6weeks and were aged between 15- 49 years following delivery. At maternity hospitals in Omdurman locality there are variations in the economical status, traditions, tribes, habits and educational levels. A total number of 142 participants (postnatal women) had enrolled in this study. The sample was selected from each hospital by the systematic random sampling technique. The data were collected by two trained researcher using a standardized administered questionnaire to assess factors associated with postpartum depression and Edinburgh Postnatal Depression Scale (EPDS), the maximum attainable score was 30. Scoring of <8-not likely, 9-11 - possible, 12-13-.Fairly high possibility, 14 or higher probable depression. (7)The data were analyzed using the Statistical Package of Social Sciences (SPSS), version 25 and a significance test was checked by chi-square test. The results accepted when the p-value was 0.05% or less. Data presented in the form of simple frequency table s and cross tabulations. An ethical approval obtained from the Institutional Review Board at Al Neelain University and Khartoum State Ministry of Health. Permissions were obtained from the hospital authorities. An informed consent obtained from each participant before the interview.

Results:**Table (1): Demographic characteristic of study participants n=142**

Variable	Frequency	Percentage%
Age		
15-19	11	7.7
20-24	48	33.8
25 -29	33	23.2
30-34	30	21.1
≥35	20	14.1
Total	142	100.0
Marital status		
Married	138	97.2
Divorced	1	.7
Widow	0	0.0
Separated	3	2.1
Total	142	100.0
Level of education		
Illiterate	15	10.6
Primary	35	24.6
Secondary	43	30.3
University	49	34.5
Post graduate	0	0.0
Total	142	100.0
Monthly income of family		
Sufficient	59	41.5
Insufficient	83	58.5
Total	142	100.0

Table (2): Distribution of study participants according to Pregnancy and delivery related risk factors n=142

condition of current pregnancy		
	Frequency	Percentage%
Wanted and planned	61	43.0
Wanted and unplanned	72	50.7
Unwanted and unplanned	9	6.3
Total	142	100.0
Parity during last pregnancy		
Primipara		33.1
Multipara	47	54.9
Grand multiparty	78	12.0
Total	17	100.0

	142	
Mode of delivery		
Normal delivery	52	36.6
Caesarian section	88	62.0
Instrumental delivery	2	1.4
Total	142	100.0

Table (3): Distribution of study participants according to family history of post-partum depression n=142

Variable	Frequency	Percentage%
Depression	29	20.4
Not depression	113	79.6
Total	142	100.0
Degree of the relation ship		
	2	
First degree	24	16.9
Second degree	5	3.5
Third degree	113	79.6
Total	142	100.0

Table (4): Family and social factors associated with postpartum depression n=142

Received support from their husband		
	Frequency	Percentage%
Never	10	7.0
Some time	51	35.9
Always	81	57.0
Total	142	100.0
Received support from their mother or family		
Always	99	69.7
Sometime	37	26.1
Never	6	4.2
Total	142	100.0

Table (5): Association between marital status and family history of postpartum depression n=142

Crosstab					
What is your marital status			Did you have a family history of post-partum depression		Total
			Yes	No	
	Married	Count	25	113	138
		% of Total	17.6%	79.6%	97.2%
	Divorced	Count	1	0	1
		% of Total	.7%	.0%	.7%
	Separated	Count	3	0	3
		% of Total	2.1%	.0%	2.1%
Total		Count	29	113	142
		% of Total	20.4%	79.6%	100.0%

P value = 0.00**Table (6): Association between condition of current pregnancy and Edinburgh Postnatal Depression Scale n=142**

Condition of current pregnancy		Edinburgh postnatal depression scale				Chi-Square Tests P-value
		Depression not likely Scoring of <8-.not likely	Depression possible 9-11	Fairly high possibility of depression 12-13	Probable depression at 14 or higher	
Wanted and planned	N	17	10	13	32	0.042
	%	24%	14%	18%	44%	
Wanted and unplanned	N	4	6	18	33	
	%	7%	10%	30%	54%	
Unwanted and unplanned	N	3	2	0	4	
	%	33%	22%	0%	44%	

More than half of participants 54 % had Wanted and unplanned pregnancy P-value = 0.042 less than 0.05 there's an association between Condition of current pregnancy and EPDS a 95% confidence level

Table (7): Relationship between the Edinburgh Postnatal Depression Scale and women who received support from their husbands n=142

received support from their husband		Edinburgh postnatal depression scale				Chi-Square Tests P-value
		Depression not likely Scoring of <8-.not likely	Depression possible 9-11	Fairly high possibility of depression 12-13	Probable depression at 14 or higher	
Never	N	5	1	1	3	0.048
	%	50%	10%	10%	30%	
Some time	N	10	7	14	20	
	%	20%	14%	27%	39%	
Always	N	9	10	16	46	
	%	11%	12%	20%	57%	

More than half of participants 57% received support from their husband P-value = 0.048 less than 0.05 there's an association between received support from their husband and EPDS with a 95% confidence level

Discussion:

In the present study, the prevalence of depressive symptoms among postnatal mothers out of 142 participants 49% were found to be suffering from post natal depression by the Edinburgh postnatal depression scale (EPDS) score at 14 or higher- probable depression. (7), this indicates that postpartum depression is a common problem in developing countries like Sudan and Edinburgh postnatal depression scale (EPDS) can be used as a screening tool. This study indentified several socio-demographic, obstetrical and delivery -related factors, family and social factors as being associated with postpartum depression .In terms of socio demographic data found that most of the participants' ages ranged between 20-24 years, this finding was congruent with a previous study conducted in united State MMWR (May 15, 2020), which revealed that the majority of the participants Aged were between 20-24 years (2). This may be due to this age is a common age of reproduction, mothers who have given birth 20-24 years

have more experience in caring for their babies compared to mothers who have given birth for the first time and tend to experience mild mood disorders (13) .In our study, 34.5% of screened mothers were university graduates .Moreover, no significant association was found between education status and postpartum depression .it is likely that the Sudanese mothers are vulnerable to postpartum depression because even after being well-educated and having a university degree, they have stay at home as housewives and raise their children, which may contributed to their mental health this finding is agree with study conducted by Elawad, etal 2020(13). In this study most of the participants were married (97.2%) this finding supported with previous study conducted by Gebregziabher NK &etal 2020(15). There was strong statistically association between marital status and family history of postpartum depression (p-value 0.00) (table 5). Lower socio-economic status has been found to be another factor associated with postpartum depression. This study revealed more than half of study participants

58% had low income table (1), low monthly family income is associated with postpartum depression with an incidence of 4.06 times greater than high monthly income(13), this indicates, the birth of baby is a challenge to the family's economic status due to the cost of caring for the baby and changing work schedules for babysitting responsibilities this findings in line with the research conducted by Wulan Rahmadhani ,etal ,in Indonesia 2022 (9),economic status was significantly related to the incidence of postpartum depression (12). In terms of pregnancy and delivery factors, unplanned pregnancy was another significant factor associated with PPD. In this study nearly half of participants found to be UN planned for current pregnancy (50.7%), also more than half of study participants had multiparty 54% and nearly to third of participants had delivered by Caesarian section (62%). This study dissimilar with previous study conducted by Abenova M, Myssayev A.etal. 2022 more than three-quarters of participants had a vaginal delivery (77.3%) (10) .And similar previous study conducted by Wulan Rahmadhani, etal, in Indonesia 2022 (9), which revealed that the type of delivery with Caesarean section affected postpartum depression as evidenced by (p-value of 0.002.) .In terms of family and social factors more than half of participants received support from their husband (57%) and two third received from family (69.7%), table (5) . This indicates mother who had no husband support after delivery were more likely to develop postpartum depression than who had support or nature of the husband relationship has been reported as a significant predictors of postpartum depression (10). More than half of participants 57% received support from their husband(P-value = 0.048) less than 0.05 there's an association between received support from their husband and Edinburgh

postnatal depression scale(EPDS) with a 95% confidence level table (6).

This study underscores the complex interplay of socioeconomic, psychological, and demographic factors in postpartum depression .Addressing these determinants through comprehensive and culturally sensitive interventions could significantly enhance maternal and child health outcomes.

Conclusion

Mental health problems are the crucial public health issues for women of reproductive age in both Low –and middle –income countries show higher prevalence rates, with estimates reaching up to 30—50% due to factors like limited healthcare access, high stress, and societal factors. According to our study, marital status and family history of postpartum depression were most common effects associated for postpartum depressions, followed by condition of current pregnancy, mode of delivery; and receive support from their husband. The study recommended sparking a light to health professionals to pay attention to depressive symptoms and to integrate mental health with maternal health care in clinical practice during pregnancy.

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Conflict of interest

The authors declare that they had no conflicts of interest.

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