

Original Article

Knowledge Regarding Postpartum Depression among Postnatal Mother in Selected Hospital Of Kathmandu

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Abstract: Postnatal Period is defining as the period begins within 6 weeks after childbirth as the mother's body, including hormone levels and uterus size, returns to a non-pregnant state. Postpartum depression (PPD) is a mood disorder to describe the various disorders such as anxiety, loss of enjoyment, sadness, and fatigue which may have serious adverse long-term effects on both the children and mothers. Postpartum depression (PPD) is a mood disorder that affects approximately 10–15% of adult mother's yearly with depressive symptoms lasting more than 6 months among 25– 50% of those affected. Postpartum depression is one of the serious psychiatric morbidities of women of childbearing age and constitutes a significant public health problem globally. The objective of this study is to assess the knowledge about postpartum depression among postnatal mother. A descriptive cross-sectional design was adopted for the study. Non probability purposive sampling technique was used to select the 134 sample. Data was collected by using self-administered questionnaires. The questionnaires were prepared mainly on two parts. The first questions related to Demographic characteristics of the participants and the rest twenty-four questions was related to knowledge regarding postpartum depression. The Data was analyzed using statistical package for social sciences (SPSS) and the analyzed data was reported using descriptive statistical method such as frequency, mean, percentage and chi-square analysis. Result showed that the mean age and standard deviation of participants was 27.66±5.20 years. Out of 134 participants, the majority of participants 73.10% had poor knowledge and only 11.20% had fair knowledge about postpartum depression. Postpartum depression was statistically significant with age group (p 0.002), religion (p 0.016), education status (p 0.000), occupation (p 0.006), monthly family income (p 0.000) and family history of mental disorder (p 0.000). Thus, the conclusion of the study suggests for development of future plans, policies and strategies in different institutions of gynecological hospital which integrates psychiatric services. It is tool for quality health standard service and preventive approach to improve and empower women.

Keywords: Postpartum Depression, Postnatal Mother

1. INTRODUCTION

Postnatal Period is defining as the period begins within 6 weeks after childbirth as the mother's body, including hormone levels and uterus size, returns to a non-pregnant state[1,2]. Postpartum depression (PPD) is a mood disorder to describe the various disorders such as anxiety, loss of enjoyment, sadness, and fatigue which may have serious adverse long-term effects on both the children and mothers[3,4]. Postpartum depression (PPD) is a mood disorder that affects approximately 10–15% of

adult mother's yearly with depressive symptoms lasting more than 6 months among 25– 50% of those affected. Postpartum depression often occurs within a few months to a year after birth. However, some studies have reported the occurrence of postpartum depression 4 years after birth [5]. The etiology of PPD is still unknown but several research says that history of depression prior to becoming pregnant, or during pregnancy, age at time of pregnancy (the younger you are, the higher the chances) ,ambivalence about the pregnancy, children (the more you have, the more likely you are to be depressed in a later pregnancy), family history of mood disorders ,going through an extremely stressful event, like a job loss or health crisis, having a child with special needs or health problems, having twins or triplets, having a history of depression or premenstrual dysphoric disorder (PMDD), Limited social support, living alone and marital conflict[6]. Postpartum depression is associated with potentially adverse consequences for the mother, her infant and the family. Some of these adverse effects include impaired cognitive and emotional development of the child, marital discord, family violence as well as maternal suicide and infanticide ideations [7]. Risk factors are bipolar disorder, had postpartum depression after a previous pregnancy, you have family members who've had depression or other mood disorders and you've experienced stressful events during the past year, such as pregnancy complications, illness or job loss[8]. Postpartum depressive symptoms have been associated with tragic outcome, such as maternal suicide and infanticide; it is a neglected area of mental health care in developing countries[9,10]. Additional information like sick leave during pregnancy, number of pregnancies, data on breastfeeding, type of delivery, family and partner support, any illness of a child, any complications during the antenatal period, regular antenatal care (A.N.C.) checkups, and past medical history were recorded using the questionnaire[11]. Postpartum depression is often treated with psychotherapy (also called talk therapy or mental health counseling), medication or both. medication such as antidepressants and antipsychotic are used to treat PPD [12,13]. The aim of the study is to assess the knowledge regarding postpartum depression among postnatal mother in selected hospital of Kathmandu, Nepal. To find out the level of knowledge regarding postpartum depression among postnatal mother. To identify the association between level of knowledge regarding Postpartum depression among postnatal mother and selected socio- demographic variable.

2. MATERIALS & METHOD

A descriptive cross-sectional study was adopted for this study. The setting of this study was conducted in Paropakar Maternity & Women's Hospital. It is located on Maternity Hospital Road, in Thapa thali, Kathmandu, Nepal. The hospital was established on 17 August 1959 and has 415 beds, of which 336 are allocated to inpatient care; 241 beds are dedicated for obstetrics, 61 for gynecology and 34 for neonatology, while 79 are service beds. Population in this study were consists of postnatal mother of Paropakar Maternity & Women's Hospital. On probability purposive sampling technique was used for the sampling population. Postnatal mothers who were present in the study time period. Women who were willing to participate in the study. Sample size was calculated by using the prevalence of knowledge of postpartum depression among postnatal mother i.e. 90.3% and using 5% margin of error through the following calculation

Sample size (n) = z^2pq/d^2 Where, n= required sample size

Z=Reliability coefficient i.e. 1.96 (at 95% confidence interval) p= Prevalence :90.3% [14]

q=1-p

d= Possible error i.e. considered as 5% By formula,

sample size (n) = z^2pq/d^2

$$\begin{aligned}
 \text{Now, } n &= z^2pq/d^2 \\
 &= 1.96 \times 1.96 \times 0.903 \times 0.097 / 0.05 \times 0.05 \\
 &= 3.8416 \times 0.087591 / 0.0025 \\
 &= 0.33648959 / 0.0025 = \text{Sample size } 134
 \end{aligned}$$

Structured self-administered questionnaire was developed as per the objectives of the study with the help of extensive review of the literature by the researcher's knowledge and consultation with the concerned research advisor, research expert and subject expert. It contains two parts, questions related to Demographic characteristics of the Respondent & questions Related to knowledge regarding postpartum depression. Knowledge regarding questionnaire consists of 24 questions on Part 2. Content validity of the instrument was maintained by developing tools by reviewing extensive literature review and consulting with an advisor, subject teacher, faculty teacher, colleagues and research expert and was made necessary. Reliability was maintained by pretesting 10% of the total sample size at a similar setting and necessary modification was done. A formal request letter was taken from Innovative Collage of Health Science to submit to the administration department of Paropakar Maternity and Women's Hospital for data collection and permission was taken from Paropakar Maternity and Women's Hospital. Approval letter was obtained from the Research Committee of Paropakar Maternity and Women's Hospital. The researcher had visited the hospital units and respondent and self-introduction was given with greeting. Objectives of the study was explained to all respondent and informed consent was taken. Confidentiality was maintained by keeping filled up questionnaire safely and was used for research purpose only. Anonymity of respondents was maintained by keeping code numbers instead of name of the respondent. Self-administered questionnaire was administered to respondent in their lunch time. Researcher has clarified queries raised during the time of data collection. It had taken about 15-20 minutes for respondents to fill up the questionnaire. The filled-up questionnaire was collected by researcher herself. After completion of filling the questionnaire obtained information was checked for completeness. Respect on the decision of the participants to withdraw within the period of filling questionnaire was maintained. Data was taken from 10 -12 respondents per day. Data collection period was within the period of 2 weeks. The data was collected and analyzed according to the objectives of the study. All data was checked, reviewed and organized i.e. editing, classifying, coding, and tabulating for accuracy and completeness. Data was analyzed using statistical package for social sciences (SPSS) and the analyzed data was reported using descriptive statistical method such as frequency, mean, percentage and chi-square analysis. Approval from research committee and written permission was obtained from concerned hospital authority. Written consent was taken from the participants of study. They were also have informed about their right to refuse from participation in the study Anonymity was maintained through without mentioning identity. Confidentiality was maintained by not disclosing their information from research setting. The Information was used for study purpose only. No any discrimination was done to the participants according to their caste, religion etc.

3. RESULTS & DISCUSSION

The data was analyzed using descriptive statistics and presented in number, percentage, mean, SPSS version 20 was used for analyzing the collected data. The association between level of knowledge about postpartum depression and selected variables with it were tested by the use of Chi-Square tests

Table 01: Socio-Demographic Characteristics of the Participants.

Characteristics	Number	Percentage
Age (years)		

<20	7	5.20
20-25	53	39.55
25-30	31	23.10
>30	43	32.10
27.66±5.20 ^a (Mean± SD)		
Religion		
Hindu	96	71.60
Buddhist	29	21.60
Christian	7	5.2
Islam	2	1.5
Ethnicity		
Dalit	30	22.40
Janjati	38	28.40
Madhesi	9	6.70
Muslim	2	1.5
Brahmin/Chhetri	55	41.00
Education Status		
Illiterate	47	35.07
Primary (1-5)	5	3.73
Secondary (6-10)	28	20.90
Higher secondary (11-12)	52	38.81
University	2	1.49
Occupation		
Housemaker	73	54.50
Business	28	20.90
Agriculture	26	19.40
Government service	2	1.50
Others ^b	5	3.70
Age at marriage (years)		
< 20	115	85.80
≥ 20	19	14.20
Monthly family income (NRs)		
20000-40000	97	72.40
40000-60000	25	18.70
>60000	12	9.00
38395.52±18784.50 ^a		

Note. ^a for Mean ±SD and others occupation ^b includes teacher and cook

Table 01 shows that demographic status of participants. Out of 134, one third 39.55% of participants were aged between 20-25 years and only 5.20% were aged below 20 years. The majority 71.60% were Hindu and only 1.5% of participants were Islam. Less than half 41% of participants were Brahmin/Chhetri and only 1.5% were Muslim. The majority 64.90% of participants were literate, among them majority of participants 59.80% were higher secondary (11-12) and only 2.30% were university. More than half 54% participants were housemaker and only 1.50% were government service. The

majority 72% of participant's monthly family income was between 20000-40000 and only 9% were above 60000.

Table 02: Maternal and Neonatal Related Information of the Participants n=134.

Characteristics	Number	Percentage
Types of delivery		
Spontaneous vaginal delivery	68	50.70
Caesarean delivery	66	49.30
Health problem to child at the time of birth		
No health problem	91	67.91
Low birth weight	11	8.21
Respiratory problem	25	18.66
Cardiovascular problem	4	2.98
Congenital anomalies	3	2.24
Health problem during pregnancy*		
Gestational hypertension	44	32.80
Anemia	33	24.60
Gestational Diabetes	11	8.20
Hypothyroidism	21	15.70
Asthma	23	17.20
Back pain	59	44.00
Number of Antenatal care visit		
0	2	1.50
1-3	10	7.50
≥ 4	122	91.00
Family history of mental disorder		
Yes	75	56.00
No	59	44.00
Type of mental disorder in family		
Anxiety	23	30.70
Stress	39	52.00
Panic disorder	7	9.30
Depression	6	8.00
Type of Support from Family*		
Baby care	62	46.30
Financial help	84	62.70
Psychological support	25	18.70
Support in Household work	89	66.40
Support your decision	36	26.90
Take hospital	45	33.60

* denotes multiple responses

Table 02 shows that more than half 50.70% of participants had spontaneous vaginal delivery and almost half 49.30% of participants had caesarean delivery. The majority 67.90% of participants didn't have

health problem to child at the time of birth and only 32.10% had health problems to child at the time of birth, among them majority 58.10% had respiratory problem and only 7% had congenital anomalies. Less than half 44% of participants suffered from back pain and only 8.20% suffered from gestational diabetes. The majority 91% visit for antenatal care more than 4 times and only 1.50% did not visit for antenatal care. The majority 56% had family history of mental disorder and 44% didn't have family history of mental disorder. Among 56% of family history of mental disorder, 52% had stress and only 9.30% had panic disorder. The majority 66.40% of participant's family support in household work and only 18.70% have psychological support.

Table 03: Source of Information about Postpartum Depression among Participants n=134

Sources of information*	Number	Percentage
Radio	8	18.60
Television	30	69.80
Newspaper	6	14.00
Health Worker	4	9.30
Social media	21	48.80

*denotes multiple responses

Table 03 shows that among the participants 32%, the majority 69.80% heard from television and only 9.30% heard from health worker.

Table 04: Level of Knowledge regarding Postpartum Depression among Participants n=134

Level of knowledge	Number	Percentage
Poor	98	73.10
Fair	15	11.20
Good	21	15.70
Total	134	100%

Table 04 shows that majority 73.10% of participants had poor knowledge and 15.70% had good knowledge and only 11.20% had fair knowledge about postpartum depression.

Table 05: Association between level of knowledge about postpartum depression and socio-demographic variables

Characteristics	Level of Knowledge			Chi Square value/ Fisher exact value	p value
	Poor n (%)	Fair n (%)	Good n (%)		
Age group (years)					
<20	3 (42.9)	0 (0.0)	4 (57.1)	19.207	0.002**
20-25	32 (60.4)	11 (20.8)	10 (18.9)		
25-30	24 (77.4)	2 (6.5)	5 (16.1)		
>30	39 (90.7)	2 (4.7)	2 (4.7)		
Religion					
Hindu	77 (80.2)	10 (10.4)	9 (9.4)	13.716	0.016**
Buddhist	16 (55.2)	5 (17.2)	8 (27.6)		
Christian	4 (57.1)	0 (0.0)	3 (42.9)		
Islam	1 (50.0)	0 (0.0)	1 (50.0)		

Ethnicity					
Dalit	24 (80.0)	3 (10.0)	3 (10.0)	6.597	0.540
Janjati	24 (63.2)	5 (13.2)	9 (23.7)		
Madhesi	8 (88.9)	1 (11.1)	0 (0.0)		
Muslim	1 (50.0)	0 (0.0)	1 (50.0)		
Brahmin/Chhetri	41 (74.5)	6 (10.9)	8 (14.5)		
Educational status					
Illiterate	46 (97.9)	0 (0.0)	1 (2.1)	22.634	0.000**
Literate	52 (59.8)	15 (17.2)	20 (23.0)		
Occupation					
Housemaker	53 (72.6)	8 (11.0)	12 (16.4)	19.000	0.006**
Business	18 (64.3)	4 (14.3)	6 (21.4)		
Agriculture	25 (96.2)	1 (3.8)	0 (0.0)		
Government service	0 (0.0)	1 (50.0)	1 (50.0)		
Others	2 (40.0)	1 (20.0)	1 (20.0)		
Monthly family income (NRs)					
20000-40000	80 (82.5)	10 (10.3)	7 (7.2)	20.649	0.000**
40000-60000	11 (44.0)	3 (12.0)	11 (44.0)		
>60000	7 (58.3)	2 (16.7)	3 (25.0)		
Age at marriage					
< 20 years	83 (72.2)	13 (11.3)	19 (16.5)	0.361	0.919
≥ 20 years	15 (78.9)	2 (10.5)	2 (10.5)		
Family history of mental disorder					
Yes	45 (60.0)	10 (13.3)	20 (26.7)	17.854	0.000**
No	53 (89.8)	5 (8.5)	1 (1.7)		

** denotes significant at p-value <0.05

Table 05 describes the results of chi-square test which was used to find out the association (p 0.05) between level of knowledge regarding postpartum depression and socio-demographic variables of postpartum depression. This analysis showed that postpartum depression was statistically significant with age group (p 0.002), religion (p 0.016), education status (p 0.000), occupation (p 0.006), monthly family income (p 0.000) and family history of mental disorder (0.000) but there was not statistically significantly association with the ethnicity (p 0.540) and age at marriage (0.919) as p of all of variables were above 0.05.

DISCUSSION

This descriptive, cross-sectional study was conducted in 337 postpartum mothers in psychiatric care in 2022. Fifty-five mothers scored above the depression scale cutoff point (>13). Emotional violence from husband, poor problem solving and communication, low relationship satisfaction, dyadic adjustment, and consensus were important risk factors for postpartum depression (p<0.05) [15,16]. A descriptive cross-sectional survey was used to assess the knowledge, attitude and prevalence of postpartum depression in southwest Nigeria in 2021[17]. A total of 300 postnatal mothers were recruited in the study. Only 6.0% had good knowledge of postpartum depression and only 11.0% of the respondents had a good attitude towards postpartum depression [18,19]. A descriptive quantitative study using multistage sampling to select participants from two purposively selected comprehensive health centers in Mushin, Nigeria in 2021. Simple random sampling was used to select 240 mothers to participate in the study. The majority of participants (60.8%) had poor knowledge of postpartum depression [20,21].

A systematic review from four electronic base interview in 2020. A total N=28 postnatal women were in study. It was found that the ability to recognize PMHP and to identify relevant symptoms was lacking among both perinatal women and the public [22]. Perinatal women had low intentions of seeking help for PMHP and preferred seeking help from informal sources while reporting a variety of structural and personal barriers to seeking help [23]. The study was conducted to assess the PPD among postnatal mothers in selected hospitals. Regarding socio-demographic characteristics out of 134 participants, The result revealed that, one third 39.55% of the participants were between 20-25 years and 5.20% of the were below 20 years and more than half 54.50% of participants were housemaker where similar study which was conducted in selected maternity Hospital of Moja Punjab in 2020, more than half 53% of the participants postnatal mothers were in the age group of 23-26 years, and the majority of respondents 76.5% were house make[24,25]. The study findings reveal that the majority 73.10% had poor knowledge, 15.70% had good knowledge and only 11.20% had fair knowledge of postpartum depression [26]. The results are similar with the studies done in Mushin, Nigeria in 2021 with 240 respondents showed that the majority of participants (60.8%) had poor knowledge of postpartum depression [27] whereas this was contraindicating with another study conducted in Malaysia 76.4% had good knowledge of postpartum depression. Comparing knowledge scores with the previously conducted studies is not always appropriate as there are variations in the type of questions asked, and educational background is also disparate[28,29]. Furthermore, the findings of the study revealed that there was significant association ($p < 0.05$) between level of knowledge regarding postpartum depression and with age group ($p = 0.002$), religion ($p = 0.016$), education status ($p = 0.000$), occupation ($p = 0.006$), monthly family income ($p = 0.000$) and family history of mental disorder ($p = 0.000$) as p of all these variables were below 0.005[30,31]. Similar study was conducted in Mushin, Nigeria in 2021 that, there is a statistically significant relationship between age and knowledge of postpartum depression ($P = 0.000$) but there is no significant relationship between education level ($p = 0.530$) and knowledge of postpartum depression as p value of the variables is greater than 0.005[32].

4. CONCLUSIONS

The findings of the study show that one third 39.55% of participants were aged between 20-25 years and only 5.20% were aged below 20 years. The majority 71.60% were Hindu and only 1.5% of participants were Islam. Less than half (41%) of participants were Brahmin/Chhetri and only 1.5% were Muslim. The majority 64.90% of participants were literate, among them majority 59.80% of participants were higher secondary and only 2.30% were university. The more than half (54.50%) participants were homemakers and only 1.50% were government service. The majority 72.40% of participant's monthly family income was between 20000-40000 and only 9% were above 60000. The majority 73.10% of participants didn't have knowledge where 15.70% have good knowledge and only 11.20% have fair knowledge about postpartum depression. The conclusion drawn based on the findings of the study suggest that there was statistically significant with age group, religion, education status, occupation, monthly family income and family history of mental disorder but there was not statistically significantly association with the ethnicity and age at marriage. A similar study can be replicated on a large sample to generalize the findings. A formal awareness program can be conducted in both antenatal and postnatal mothers to enhance the existing awareness regarding postpartum depression. A comparative study can be done in both antenatal mother and postnatal mother to assess the awareness regarding postpartum depression.

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