A Study to Assess the Prevalence of Postnatal Depression among the Postnatal Mothers at Walaja Government Head Quarters Hospital, Vellore District Tamilnadu

Victoriajebakani .D

Associate Professor, Department of Obstetrics & Gynaecological Nursing, KKC college of Nursing Andhra Pradesh, India

Abstract: *Postnatal depression is the type of depression, it develops within four to six weeks after child birth characterized by sadness, episodes of crying, irritability, anxiety & irregular sleeping patterns. It usually affects the mothers around 2weeks after child birth and may also last up to several months or even a year postnatal depression is the most common complication of child bearing women affecting approximately 10-15% of women.* <u>Objectives</u>: *To assess the prevelance of postnatal depression among, postnatal mothers, to Associate between the prevelance of postnatal depression with the selected demographic variables of postnatal mothers. Methodology: The research methodology indicates the general pattern to gather valid and reliable data for the problem under investigation. The present study was aimed to assess the level of postnatal depression among the postnatal mothers through assessment of mothers by Eden Burg scale it includes the research design, setting of the study, population, sample and sample size, sampling techniques, development of the tool, method of data collection and plan for data analyze. Result and Conclusion: Based on objectives data were analyzed using descriptive statistics such as frequency, percentage & inferential statistics such as chi-square. The study finding showed that the majority postnatal mothers were having possible depression (53.33%) and (46%) have no depression, There was no association found between prevelance of postpartum depression and demographic variables such as age, place of living, type of family, socio-economic status, occupation, family income, obstectrical score, type of delivery and newspaper reading and there is association found between magazines, reading and prevelance of postpartum depression at the level of P<0.05*

Keywords: postnatal depression, postnatal mothers

1. Introduction

Postnatal depression is the type of depression, it develops within four to six weeks after child birth characterized by sadness, episodes of crying, irritability, anxiety & irregular sleeping patterns. (Medical dictionary-2013)

Postnatal depression usually affects the mothers around 2weeks after child birth & may last up to several months or even a year. (Peter J, chen-2008)

Postnatal depression is the most common complication of child bearing women affecting approximately 10-15% of women. (warner et al-2006)

There are certain physical and emotional factors that may contribute to postnatal depression

Physical:
- Genetic vulnerability
- Sudden fall in estrogen & progesterone level
- Sudden decrease in endorphins of Labor
- Low free serum triptophan level
- Post –parum thyroid dysfunction
- Severe eclampsia
- Post –parum complication
- Chronic fatigue

Emotional:
- Stressful life events
- Lack of emotional support
- Difficulty in relationship
- Birth of daughter when a son was desired
- Fear and anxiety/ (Roxanne Duran Edward-2010)

Apart from these causes there are number of factors that have been suggested to increase the risk of postnatal depression.
- Birth related psychological trauma
- Birth related physiological trauma
- Formula feeding rather than breast feeding
- A history of depression
- Cigarette smoking
- Low self –esteem
- Child care stress
- Prenatal depression during pregnancy
- Low social support
- Single marital status
- Low socio economic status
- Unwanted /unplanned pregnancy
- Maternity blues (Breck ct, 1996)

The mothers who have postnatal depression may have any of the following symptoms for at least two weeks

Feelings
- Having a very low mood
- Feeling inadequate & a failure as a mother
- Having a sense of hopelessness about the future
- Feeling exhausted, empty, sad, tearful
- Feeling guilty, ashamed or worthless
- Experiencing anxiety or panic

- Fear for the boy
- Fear of being alone or going out

Action
- Lack of interest in usual activity
- Insomnia
- Appetite changes
- Decreased energy and motivation
- Withdrawal from social contact
- Not looking after personal hygiene
- Inability to cope with the daily routine

Thoughts
- Inability to think clearly or make decision
- Lack of concentration & poor memory
- Ideas about suicides
- Thinking about running away from everything
- Worrying about partner
- Worrying about harm or death occurring to partner or baby.

Postnatal depression has a profound impact on mother, infant, partner and family members

Impact of postnatal depression on mother
Postnatal depression has an impact on the mothers physical well being, the changes in her diet, sleep activity, levels can result in her being less well nourished, exhausted and overly or less active than usual combined with ongoing depression and high levels of anxiety this will in turn reduce the body's immunity and ability to fight against infection. Eventually the emotional distress of depression may be expressed in increasing physical symptoms that might be felt as pain, headaches, chest pain or difficultybreathing. There are also along term implications for the mothers mental health as a result of postnatal depression, particularly if there is inadequate treatment. (Rachel elam, 2011)

Impact on postnatal depression on partner
Partners need a lot of support too and are known to be at risk of developing depression themselves. They often feel confused, lost and helpless, The partner's workload can increase enormously as he attempts to continue working to provide their single income but he may also need to take on more of household work and the care of the children if his partner has not able to manage during the day, he may be feeling very isolated and lonely. (milgromJ.1999)

Impact of postnatal depression on infant
Postnatal depression has many difficulties in mother-infant interaction over extended period of time compromise many aspects of the infants development

Table 1: Impact of postnatal depression on infant

Behavioral problems	Behavioral problems including sleep problem temper tantrum, aggression and hyperactivity
Delay in cognitive function development	They may bear to walk and talk later than other children & learning difficulties, including problem with school
Social problems	Difficulty in establishing relationship, they may find hard to make friends in school they may be socially withdrawn or they
	may act out in destructive ways
Emotional problems	Lower self-esteem, more anxious and fearful, more passive and less independent.
Depression	The risk of developing major depression early in life is particularly high for children of mother with postnatal depression

(Cooper PJ, 1997)

Impact of postnatal depression on family
Parents, siblings and extended family members are all affected by the presence of postnatal depression. The best approach will depend on an assessment of needs, the severity of symptoms and the services available in community.

2. Review of Literature

1) **Dubey and Gupta, et al. (2012)** studied the prevalence of women at risk for peripartum depression using Edinburgh postnatal Depression scale (EPDS) score in a tertiar teaching hospital in New Delhi. and to study the associated risk factors in the Indian population. Five hundred and six (506) peripartum women were interviewed using a structured questionnaire, which included sociodemographic details. Thirty one (6%) out of 506 women scored ≥10 on the EPDS. Birth of female child, nuclear family structure and poor marital relationship were found to have a statistically significant correlation with peripartum depression.

2) **Savarimuthu and Ezhilarasu**, et al. (2010) assessed Post –partum depression in the community, from rural south India. Women in the post-partum period were assessed using the Tamil versions of Short Explanatory Model Interview, the Edinburgh Postnatal depression scale and a semi-structured interview to diagnose ICD 10 depression. Socio-demographic and clinical details were also recorded. Totally 137 women recruited and assessed, of these, 26% were diagnosed to have postpartum depression.

3) **Mariam and Srinivasan (2009**) examined the prevalence and risk factors in the development of postpartum depression.132 pregnant mothers attending antenatal clinic were assessed for psychological distress at third trimester. Variables that were measured included postnatal depression, obstetrics history and socio –demographic characteristics.39 women (30%) scored greater than 12 on Edinburgh Postnatal Depression Scale at 6-10 weeks indicative of postpartum depression.44% of women with antenatal psychological distress developed postpartum depression. The study concluded that antenatal psychological distress was a risk factor in the development of postpartum depression calls for routine screening of psychological distress during antenatal visits.

4) **Deng and Xiong (2014)** investigated the prevalence and analyze the risk factors of postpartum depression (PPD) in Tangxia Community, Guangzhou, a community representative of the process of urbanization in china. A total of 1823 delivered women in Tangxia Community, Guangzhou were screened with Chinese version of Edinburgh Postnatal Depression Scale, Hamiltion Depression Scale and Social support Rating Scale. The

risk factors were evaluated by self-made questionnaire based on literature interview combined with expert consultation. The study concluded that the incidence of PPD was slightly higher than other regions of China.

5) **Deng and Jiang (2014)** investigated the prevalence and risk factors of postpartum depression (PPD) in Tianhe district of Guangzhou. A total of 1428 postpartum women in 3 hospitals in Tianhe District of Guangzhou were screened with Edinburgh Postnatal Depression scale (EPDS), social support Rating (SSRS) and a self – designed questionnaire of PPD –related factors during the perion from May to September, 2013. The Prevalence of PPD was 20.03% in these women. The study concluded that The prevalence of PPD is high in Tianhe District of Guangzhou, and health education and psychological intervention should be offered to prevent PPD.

3. Methods/Approach

The study undertaken is aimed at assessing the prevelance of postnatal depression among post natal mothers.

Setting: Walaja government headquarters hospital, walaja

Population: Postnatal mothers admitted at walaja government headquarters hospital walaja

Sample techniques: convenient sampling techniques

Sample & sample size: 30 postnatal mother
I. Sampling criteria:

Inclusion criteria:
a. The mother who stayed in the hospital up to 7 days after delivery.
b. The mothers were willing to participate in the study.
c. The mothers were present during the period of data collection.

Exclusion criteria:
a. Mothers with psychological problem under treatment.
b. The mothers having the babies with serious health problem
c. The mothers with high risk cases.

Description of the Tool and Scoring
The tool consists of 2parts:

PART-A
Demographic data consist of age, name, obstetric score, type of delivery, place of living, type of family, socio-economic status of postnatal mothers, occupation, income including, newspapers reading, magazines reading.

PART-B
Edinburgh postnatal depression ale (EPDS)
The Edinburgh postnatal depression scale was as a self completion questionnaire with 10 items

Table: 2 Description of Edinburgh postnatal depression scale (EPDS)

Response categories are scored as 0, 1, 2 and 3 according to increasing severity of the symptoms. Items marked with an asterisk are reverse scored (ie., 3, 2, 1 and 0): the total score is calculated by adding together the scores for each of the 10 items.

Questions	Scoring
1, 2&3 (without an*)	Top box scored as '0' & the bottom box scored as '3'
3, 5-10 (marked with an *)	The top box scored as '3' & the bottom scored as '0'

Maximum score-30
Possible depression-10 (or) greater
Always look at item 10 (suicidal thoughts)

Data Collectiion Procedure
The investigator self introduced and obtained consent from postnatal mothers who is fulfilling the inclusion & exclusion criteria of the study at Walaja Government Head quarters Hospital. The necessary information about the study was given to them. Then Edinburg postnatal depression scale was given. The mothers were asked to underline the response which comes closet to how she has been feeling in the previous days. All ten items in the questionnaires was completed. Care has taken to avoid the possibility of the mothers discussing answer with others. The investigator ensured the privacy and dignity of the postnatal mothers during the study process.

4. Results

Table 2: Frequency& percentage distribution of demographic variables among postnatal mother (n=30)

Demographic variables	Frequency	Percentage
1) Age (years)		
a) 19-24	17	56.66
b) 25-30	13	43.33
c) 31-35	0	0
2) obstetrical score		
a) Primi gravida	12	40
b) Second gravid	17	56.66
c) Above2	1	3.33
3) Type of delivery		
a) Normal delivery	10	33.33
b) caesarean section	20	66.66
c) Instrumental delivery	0	0
4) Place of living		
a) Village	25	83.33
b) city	5	16.66
5) Type of family		
a) joint family	12	40
b) Nuclear family	18	60
6) Socio-economic status		
a) Low class family	21	70
b) Middle class family	9	30
c) High class family	0	0
7) Occupation		
a) House wife	28	93.33
b) Coolie	2	6.66
c) Government job	0	0
8) Family income		
a) Rs2000-5000	21	70
b) Rs5000-8000	9	30
c) Rs8000-12000	0	0
9) Newspaper reading		

a) Yes	5	16.66
b) N0	25	83.33
10) Magazines reading		
a) Yes	4	13.33
b) No	26	86.33

Table 3: Frequency and percentage distribution of prevalence of postnatal depression among postnatal mothers (n=30)

Prevalence of postpartum depression	Frequency	Percentage
No depression	14	46.66
Possible depression	16	53.33

Table 4: Association of prevalence of postnatal depression with demographic variable among postnatal mothers (n=30)

Demographic variables	Prevalence of postnatal depression		X^2 Value	P Value
	No depression	Possible depression		
1) Age (years)				
a) 19-24	7	10		5.99
b) 25-30	7	6	0.477	(N. S)
c) 31-35	0	0		
2) Obstetrical score				
a) Primi gravid	5	7		5.99
b) Second gravid	9	8	1.265	(N. S)
c) Above2	0	1		
3) Type of delivery				
a) Normal delivery	7	3		5.99
b) Caesarean section	7	13	3.288	(N. S)
c) Instrumental delivery	0	0		
4) Place of living				
a) Village	10	15		3.84
b) City	4	1	2.668	
5) Types of family				
a) Joint family	5	7		3.84
b) Nuclear family	9	9	0.2	
6) Socio-economic status				
a) Low class family	12	13		5.99
b) Middle class family	3	2	0.24	(NS)
c) High class family	0	0		
7) Occupation				
a) Housewife	14	14		5.99
b) Coolie	0	2	1.888	
c) Government job	0	0		
8) Family income				
a) Rs2000-5000	10	11		5.99
b) Rs5000-8000	5	4	0.156	(N. S)
c) Rs 8000-120000	0	0		
9) Newspaper reading				
a) Yes	3	2		3.84
b) No	11	14	0.427	(N. S)
10) Magazines reading				
a) Yes	4	0		3.84*
b) No	11	5	4.615	

N. S – Non significant , * P-<0.05

5. Discussion

With regard to age group majority of postnatal mothers in the study group were between 19-24 years [56%].
With regard to obstetrical score of postnatal mothers in the study group were second gravida [56.66%]
With respect to type of delivery the majority had caesarian section [66.66%]

With regard to place of living majority of postnatal mothers were from village [83.33%]
With respect to types of family the majority of them were living in nuclear family [60%]
With regard to socio-economics status the majority of the postnatal mothers were belongs to low class family [70%]
With respect to occupation majority of the postnatal mothers were house wife [93.33%]
With regards to family income majority of postnatal mothers were between Rs.2000-5000 [70%].
With regard to newspaper reading majority of postnatal mothers in the study group have no habit of reading newspaper [83.33%]
With regard to magazines reading majority of postnatal mothers in the study group have no habit of reading magazines [86.66%]

The first objective of the study was to determine the prevalence of postnatal depression among postnatal mothers.

The prevalence of postpartum depression was assessed by using Edinburgh postnatal depression scale. The study finding showed that, the majority postnatal mothers were having possible depression [53.33%] and [46.66%] have no depression

The Second objectives of the study was to associate the prevalence of postpartum depression with their selected demographic variables of postnatal mother.

The association of demographic variables with postnatal depression among postnatal mothers in the study group was assessed by using chi-square.

There was no association found between prevalence of postpartum depression and demographic variables such as age, place of living, type of family, socio-economic status, occupation, family income, obstetrical score, type of delivery and news paper reading and there is association found between magazines reading and prevalence of postpartum depression at the level of P<0.05.

Certain limitation of this study includes samples size and duration of the study seems to be lesser to generalize the findings.

6. Nursing Implication

1) Implications in nursing practice:
- The midwives play an important role in educating mothers regarding self care aspects of puerperium, breast feeding techniques, newborn care etc.
- Implementing these education in the regular practice may impart knowledge about breast feeding technique and new born care to postnatal mothers.
- The community midwives organize cost effective programme for educating postnatal mothers on care aspects of newborn

2) Implication in nursing education:
- Postnatal depression and its impact should be emphasizes in nursing curriculum.

3) Implications in nursing administration:
- The nurse administrator can formulate policies and procedures regarding educating about breast feeding techniques and newborn care for postnatal mothers
- Nursing confences and in-service educating program can be conducted regarding postnatal depressions and its impact on mother, new born family and midwives role in preventing the incidence of postpartum depression.
- Nursing administrator can use this strategy for better quality care for postnatal mothers.

4) Implications in nursing research:
- The effectiveness of the study can be verified by its utility by nurses in the practical field
- Research can promote many studies on this topic with long term goals.
- The nurses can be motivated by the nurse educators and administrators to conduct research on various aspects of postnatal depression

7. Recommendations

The findings of this study helps to develop further recommendations as follows
- This study can be replicated on larger size with extended period of time to generalize the findings.
- Replication of this study in different setting to strengthen the findings.

References

Books
[1] D. C. Dutta, textbook of midwifery and obstetrical in nursing,
[2] Nima Bhaskar, Midwifery and obstetricalnursing, published by emmes, first edition
[3] Rosamund M, Brugar. Theory for Midwifier practice. Series editors, First published 1995.
[4] Sheila balakrishnan, Textbook of obstetrics, paras medical publisher, first edition 2007.

Journals
[5] Aldallal FH< Grant In, Prevalence of postnatal depression symptoms and the associated risk factors among random sample Bhahraini women. Int J Women's Health (2012) 4: 191-200.
[6] Almedia A, Meminod G, Mothers with Severe Pschiatric Illness and their New borns: a hospital based model of prenatal consultation Journal of ZERO-TO-THREE National centre for Infants, Toddlers and Families (2012), 29 (5): 267-72.
[7] Bener A, Gerber LM., determine the prevalence of depression, anxiety, stress, during the postpartum period of women. J Onset Gynecology Neonatal Nursing, (2012) 41 (3), 408-16.
[8] Bener A, Burgut, FT., (2012). The prevalence & Identify risk factory of postpartum depression among Arab women in qatar. J psychiatry, 57 (9): 5737-46.
[9] Burgut FT, Berner A, The postpartum depression & Maternal risk factors in qatar. Rev brasGinecol, (2013), 35 (3): 130-5.
[10] cohn, Jeffrey F, Campbell,, Susan B, "Infant response in the Still –face paradigm at 6 months predicts avoidant and secure attachment at 12 months "Development and Psychopathology (2009) 3 (4): 637-76".
[11] COX JL, Holden JM, Detection of Postnatal Depression., Development of the 10-Items Edinburg Postnatal Depression Scale. Br J Psychiatry 150 (2) 782-6.
[12] Deng., A., Xlong, R., (2014). Prevalence & risk factors of postpartum depression in Tianhe District of Guangzhou. J Med Assoc. (1987) 96 (7), 761-7.
[13] Dennis CL, Heaman M, Postpartum depression among the Canadian women, J Ostet Gnecology India., (2012) 61 (5): 528-30.
[14] Dennis CL, Dowswell T, Psychosocial and pscological intervention for prevention for prevention postpartum depression: I Dennis, Cindy lee Cochrane Database Syst Rev 2: (2013) CD001134.
[15] Dubey Cand Gupta N, Prevalence of associated risk factor for postpartum depression in woman attending a tertiary hospital, Delhi, India, tJ Soc psychiatry, (2012) 56 (1): 94-102.
[16] Ehborg M, Nasreen NH, Independent effect of maternal perinatal depressive symptoms on infants growth & mother development in rural Bangladesh, AvstN2J psychiatry (2011) 45 (12): 1040-6.
[17] Field T. C, postpartum depression effects on early interaction, parenting and safety practices: A review "Infant behavior and development (2010) 33: 1-6.
[18] Ghosh A, Goswani S, Evaluation of the postpartum depression in a tertiary Hospital, J Psychiatry (2011), 57 (9): 537-46.
[19] Golbasi Z, Kelleci M, Prevalence & Co-related of depression in pregnancy among Turkish Woman, Pubmed,-indexed for medicine (2010).
[20] Goodman JH, "Paternal postpartum depression its relationship to maternal postpartum depression, and implication for family health "Adv Nursing (20014) 45 (1): 26-35.
[21] Goxal D, Murph So, Incidence of Postpartum Depressive Symptomatology in a sample immigrant Asian India women, (2006)
[22] Hagen EH, Barrett HC, Perinatal Sadness among Shuar women: Support for an evolutionary Theory of Psychic Pain Med Antropol (2007) Q21 (1): 22-40
[23] Imbula Essam B, Okitund Luwa, EA, Prevalence of post partum depression & risk factors in Kinshasa, J Perinat Neonatal Nurs.27 (1): 25-33
[24] Klainin P, Arthur D G, postpartum depression in Asian cultures: a Literature review Int J Nurs Stud (2009) 46 (10) 1355-73.