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Prevalence and Associated Risk Factors for Postnatal Depression among the Postnatal Mothers

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Abstract

Abstract- Postpartum depression is an important public health problem adversely affecting mothers and their newborns, and members of the family. It typically lasts from 2 weeks to 1 year and its symptoms are not very apparent to untrained observers. A descriptive study was conducted in order to assess the level of postpartum depression and its associated risk factors among the mothers delivered within 6 months.

Methodology- The study was restricted to 150 mothers delivered within 6 months in the selectedVillages, Puducherry. The investigator has used Postpartum Depression Screening Scale and a Short explanatory model interview scale to assess the level of Depression and identification of Risk factors. Data was collected by the investigator through direct interview for a period of 4weeks. 150women were interviewed on an average of 4 to 5 persons per day. Demographic data was analyzed by using frequency and percentage. Chi-square is worked out to associate the demographic variables and risk factors with Postpartum Depression.

Result and Findings- Major findings of the study, the level of PPD was assessed as around 83.3% mother had No depression, 14% mothers had Mild depressions and 2.7% had Major depression. The Risk factors identified as Unplanned pregnancy, Menstrual disorders, Difficulty in becoming pregnant, history of Spontaneous abortions, Still births, Low birth weight baby, previous history of family members affected with depression, In-laws were staying with them, Anxious during pregnancy, Physically abused, Demand for dowry, Alcoholic husband and not have good relationship with in-laws etc. It is further inferred from the study that the major risk factors like anxious during pregnancy, demanded for dowry and having alcoholic husband had an association with the postpartum depression in this study.

Conclusion- This study concluded that women during pregnancy and after child birth need tobe cared for and supported. Early detection and appropriate intervention will improve the health of many postpartum women.

Introduction

Having a baby is a joyous time for most women, but many feel sad afraid or anxious after child birth. Pregnancy is such a huge change in a woman's life that it brings about more psychological changes than any other life events [1].Women are between 2 and 3 times more likely to experience depression and anxiety than men. Women in the postpartum period are even more vulnerable. Affective disorders occur commonly in postpartum period, ranging in severity from mild and transient "baby blues" experienced by 50–80 % of women to postpartum psychosis which affects <1 % of women [2]. Postpartum depression occurs in 10- 15% of new mothers , and the incidence of post-partum psychosis is 0.14% to 0.2% Another report says that approximately 15% to 20% of pregnant women experience postpartum depression and that 15% are severely depressed that they attempt suicide [3-4]. Post-partum depression is an important public health problem adversely affecting mothers and their newborns, and members of the family. It typically lasts from 2 weeks to 1 year and its symptoms are not very apparent to untrained observers. Mothers have their feelings in a mild form as Post-partumblues [5-7].

During child birth the identified risk factors are obstetric factors including complication during pregnancy or delivery, traumatic birth experience including unexpected Cesarean Section or the delivery of preterm infant, unexpected birth outcomes those who deliver multiple infants and early discharge from the hospital less than 24–40 hours. Reports of sleeplessness, anxiety and cognitive impairment are especially important to listen to, as they may be mistaken for normal maternal adaptation in the post-partum period rather than indicating a deepening postpartum depression [8-12]. It is difficult to predict which women will develop post-partum depression before birth. Proper identification of these risk factors during antenatal period with collaboration of obstetrician and psychiatrist can reduce the morbidity associated with this group of disorders. Pregnancy screening and counseling will prevent the symptoms in the post-partum period. Nurses who work with child bearing women in the post-partum period can discover the problem as soon as symptoms develop make appropriate counseling recommend appropriate referral encourage in anti-depressant treatment thus preventing post-partum psychosis a severe mental illness; thus making the mother's march towards safe motherhood [13-15].

PPD has been experienced by many women many of them do not seek medical help which may be due to the lack of financial support. The more the women delay the treatment, the severe is the depression and its consequences[16]. Nurses have a vital role in identifying the risk group and to empower appropriate support system as they meet the postpartum women in the community and in the clinical setting. They can mobilize healthy support system for the post-partum women within the family and can guide the depressed postpartum women to appropriate health care services. The study aims to find out the level of Post-partum depression and also the risk factors associated with depression.

Objectives

To assess the level of Post-partum depression among the mothers delivered within 6 months

To identify the risk factors of Post-partum depression among the mothers delivered within 6 months

To associate the level of Post-partum depression with selected risk factors

To associate the level of Post-partum depression with the selected demographic, Obstetrics variables .

Methodology

The research approach used for this study was Quantitative Research Approach. The Research design selected for this study was descriptive design. The study was conducted in selected Villages of Puducherry. The samples selected for this study consisted of the mothers with infants of 6months residing at selected villages. In the present study sample size was 150 delivered mothers. It was collected from the birth register from the selected PHC from the last 6 months. Total numbers of births were 165, out of which 9 mothers were still in the mothers house after delivery and not available during data collection, 2 mothers have shifted to other area, 5 not willing to participate in the study. Hence the final sample size consisted of 150delivered mothers with infants of 6 months. Data Collection period was 1 month. Purposive sampling technique was used to select the samples for this study.Inclusion Criteria for the study were Women who had delivered with infants of 6 months, Were more than 18 years old, were residing in the selected villages during the study, were willing to participate in the study. The Exclusion Criteria was: Those who are physically and mentally unfit. The tool for data collection was divided into 2 sections. Section A consists of Demographic data and Obstetrics data and Section B had two parts. Part 1 consisted with Edinburgh postnatal depression scale (EPDS) to assess the level of depression among women. Edinburgh postnatal depression scale (EPDS) was created specifically for postpartum women by Cox et al. for screening of depression. It is a 10-item self-rated questionnaire used extensively for the detection of PPD. It has been well validated and found to have high sensitivity, specificity, and accuracy. Part 2 was based on Short explanatory model interview scale to assess the risk factors contributing for development of Depression. Data was collected after obtaining formal written permission from the concerned Authority and from the Institutional Ethical Committee. An oral/written consent was obtained from the mothers. The data collection period was 6 weeks. Data was collected by the investigator through direct interview with the women. 150 women were interviewed for 20 to 30 minutes. Interview duration was prolonged according to women's need. On an average of 6 to 7 persons were interviewed per day. All mothers were cooperated well.

Result and Findings

The study findings regarding demographic variable shows that with the respect to age majority of the samples 87(58%) belong to the age group of 21 – 25years, 18(12%) were below 20 years, 36(24%) belong to26- 30 years and 9(6%)belong to 31- 35 years, with respect to religion 142(94.7%) were Hindus, 4(2.7%) were Christians and 4(2.7%) were Muslims, with respect to education 9(6%) were illiterate, 32(21.3%) had primary school education, 66(44%) had high School education, 31(20.77%) had higher secondary education and 12(8%) were graduates, with respect to occupation 141(94%) were unemployed and 9(6%)were employed, regarding income 39(26%) earned below1000 Rs. Per month 54(36%) were earning Rs1001 -2000, 29(19.3%)were earning Rs 2001 – 3000 and 28(18.7%) were earning above Rs 3000 respectively.

With regard to the age at first delivery 64(42.7%) were Primi mothers 8(5.4%) delivered at the age of 17- 19 years, 52(34.6%) delivered at the age of 20- 22years, 19(12.7%) delivered at the age

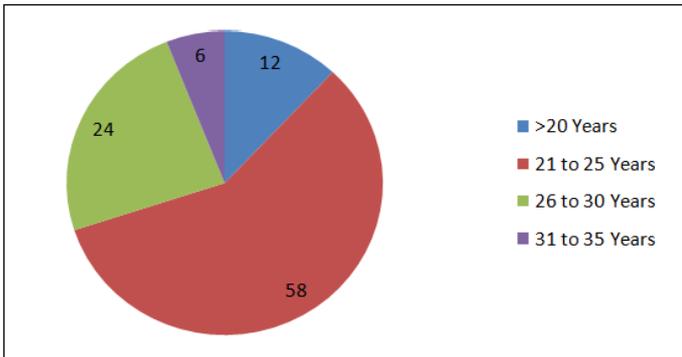of 23-25 years and 7(7.7%) delivered at the age of 26- 29years of age respectively.

Figure 1: Distribution of Age

According to the number of living children 64(42.7%) had one child, 76(59.7%) had two children and 10(6.7%) had more than three respectively. Considering the support system 94(62.7%) had the support of husband and parents, and 56(37.3%) had the support of husband. Only With regard to the type of feeding 145(96.7%) breast fed their children,2(1.3%) gave bottle feeding to their children and 3(2%) breast fed as well as bottle fed their children respectively.

According to the type of family 84(56%) belong to nuclear family and66(44%) belong to Joint family. Considering the no of days after delivery 22(14.7%) had less than 30 days children,30(20%) had 31-60 days children, 29(19.3%) had 61-90 days children,22(14.7%) 91-120 days children, 29(19.3%) had 121-151 days children, 18(12%) had 121- 150 days children respectively. Type of delivery 125(83.3%) had normal delivery, 25(16.7%) had caesarean delivery.

The above table 1 & Figure 2, shows that identifying the risk factors related to postpartum depression negative aspects 11(7.3%) mothers had not planned pregnancy, 4 (2.7%) mothers had menstrual disorders 7(4.7%) mothers had difficulty in becoming pregnant 4(2.7%) mothers thought of aborting this pregnancy, 23(15.3%) mothers had spontaneous abortions, 5(3.3%)mothers had still birth, 27(18%) mothers had low birth weight baby, 5(3.3%)mothers' family members were affected with depression, 9(6%) mothers' had in laws staying with them, 70(46.7%) mothers' were anxious during pregnancy, 13(8.7%) mothers' were physically abused, 11(7.3%) mothers' had been demanded for dowry, 20(13%) mothers' had gender preferences problem 8(5.3%)mothers' did not have good relationship with in-laws and 14(9.3%) mothers' had alcoholic husband.

| Table: 1- Identifying the Risk Factors Related to Postpartum Depression				
Variables	**Yes**	**Percent%**	**No**	**Percent %**
Pregnancy Planned one	139	92.7	11	7.3
Antenatal check-up	150	100	-	-
Menstrual disorder	4	2.7	146	97.3
Difficulty in becoming pregnant	7	4.7	143	95.3
Long term Psychiatric medication	-	-	150	100
Thinking of aborting this pregnancy	4	2.7	146	97.3
Spontaneous abortion	23	15.3	127	84.7
Still birth	5	3.3	145	96.7
Full term delivery	150	100	-	-
Normal birth weight	123	82	27	18
Family members affected	5	3.3	145	96.7
In laws staying with you	9	6	141	94
Anxious during pregnancy	70	46.7	80	53.3
Death of loved ones	23	15.3	127	84.7
Misunderstanding with husband	20	13.3	130	86.7
Immigration	-	-	150	100
Physically abused	13	8.7	137	91.3
Demanded for dowry	11	7.3	139	92.7
Gender preferences	20	13.3	130	86.7
Happy married life	150	100	-	-
Good relationship with in laws	142	94.7	8	5.3
Husband consumed alcohol	14	9.3	136	90.7
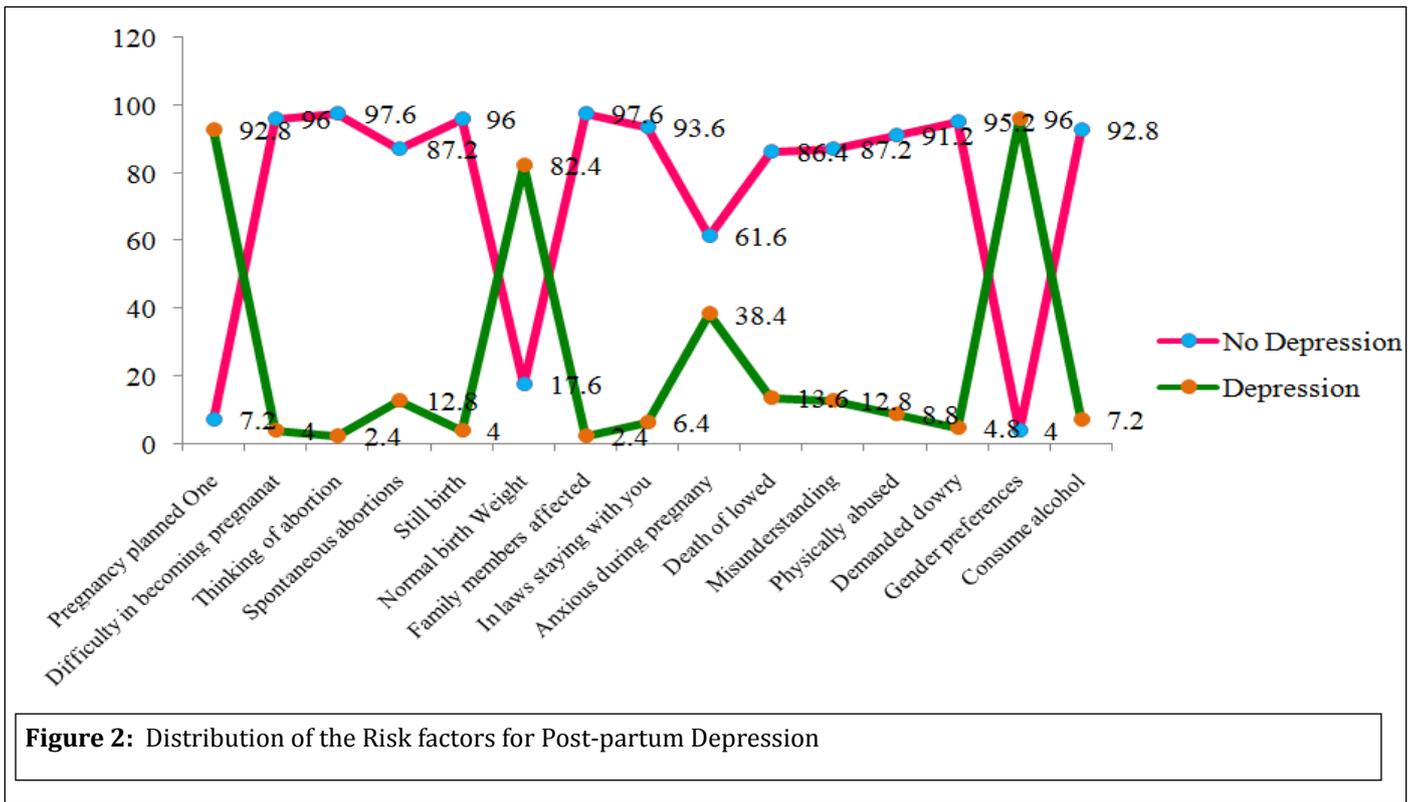
Figure 2: Distribution of the Risk factors for Post-partum Depression

Positive aspects of risk factors related to PPD 139 (92.7) mothers had planned pregnancy,146(97.3)mothers did not have any menstrual disorders, 143(95.3)had no difficulty in becoming pregnancy,150(100%) had regular antenatal checkup, 150 (100%) were not on any long term Psychiatry treatment, 146 (97.3%)never thought of aborting this pregnancy, 127(84.7%) did not had any history of spontaneous abortions, 145 (96.7%) did not have anystillbirths,150(100%) had full term delivery, 123 (82%) delivered normal birth weight infants and 27 (18%) delivered low birth weight babies, 145 (96.7%)family members were not affected with depression, 141(94.0%) in- laws were not staying with them, 127(84.7%) had not lost their loved ones, 80 (53.3%) were not anxious during pregnancy,130 (86.7%) did not have any misunderstanding with the husband, 137 (91.3%) were notphysically abused during pregnancy or after childbirth, 150 (100%) lead a happy married life.

With regard to the level of depression shows that 125 (83.3%) mothers had no depression, 21 (14%) mothers had mild depression and 4 (2.7%) mothers had severe depression(Figure-3).
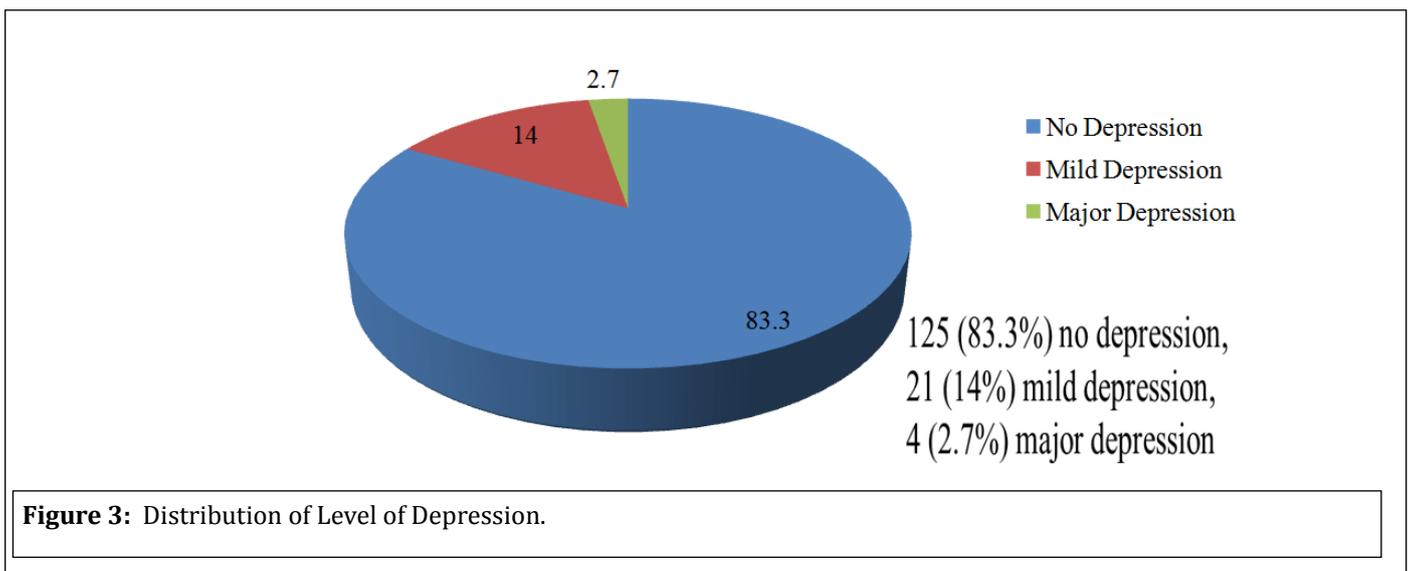

Figure 3: Distribution of Level of Depression.

Further in relation to association between risk factors and level of depression it highlights that among the women with depression 7 (28%) had history of spontaneous abortion, and 16(12.8%) without depression had history of spontaneous abortion. The findings p=0.054. Reveals that there is an association between the risk factor spontaneous abortion with PPD(Table-2).

Table-2- Association of Risk Factors With Postpartum Depression(Spontaneous Abortion)						
Risk factor	No depression		Depression		Chi- square	P value
Spontaneous abortion	No	%	No	%		
No	109	87.2	18	72	3.708	0.054***
Yes	16	12.8	7	28		

Similarly among the depressed women 22(88%) were anxious during pregnancy and among the non-depressed women 48(38.4%) were anxious during pregnancy. The findings p=0.000 reveals that there is a strong relationship between the risk factor anxious during pregnancy and postpartum Depression(Table-3).

It was noticed that among the depressive women 5(20%) were demanded for dowry and 6(4.8%) of the no depressive women were demanded for dowry. The findings p=0.008 reveals that there is a relationship between the risk factor demanded for dowry and PPD(Table-4).

Table-3- Association of Risk Factors With Postpartum Depression(Anxious during pregnancy)						
Risk factor	No depression		Depression		Chi- square	P value
Demanded dowry	No	%	No	%		
No	119	95.2	20	80	7.083	0.008***
Yes	6	4.8	5	20		

Table-4- Association of Risk Factors With Postpartum Depression(Demand for Dowry)						
Risk factor	No depression		Depression		Chi- square	P value
Alcoholic husband	No	%	No	%		
No	116	92.8	20	80	4.034	0.045***
Yes	9	7.2	5	20		

Among the depressive women 5(20%) had alcoholic husband and among the no depression patient 9(7.2%) had alcoholic husband. The finding=0.045reveals that there is a relationship of PPD and the risk factor alcoholic husband (Table-5).

Among the depression women 7(28%) had Caesarean delivery and 18(14.4%) had normal vaginal delivery. Among the no depression women107(85.60%) had normal vaginal delivery and 18(72%) had Caesarean delivery. The findings p=0.096 reveals that there is a relationship between the variable delivery type and PPD(Table-6).

Table-5- Association of Risk Factors With Postpartum Depression(Alcoholic Husband)						
Risk factor	No depression		Depression		Chi- square	P value
Alcoholic husband	No	%	No	%		
No	116	92.8	20	80	4.034	0.045***
Yes	9	7.2	5	20		

Table-6- Association of Risk Factors With Postpartum Depression(Types of Delivery)						
Demographic variables	No depres-sion	125	With depression	25	Total 150	Chi-square	P value
Delivery type					Total		
Vaginal	107	85.6	18	14.4	125	2.774	0.096***
Caesarean	18	72	7	28	25		

Discussion

The present study result highlighted that 125 (83.3%) mothers had no depression, 21 (14%) mothers had mild depression and 4 (2.7%) mothers had severe depression among the postnatal mothers. The present study result supported by Shriraam et al, 2019 found that prevalence of depression during postpartum period was found to be 11%, and among them, two-thirds had major depression. This study finding was similar to the community-based study conducted by Prost A,, et al, 2012, in rural Jharkhand and Orissa in which, 11.5% of mothers had symptoms of distress. This could have been due to the difference in methodology, time of data collection with reference to delivery and also difference in socio-cultural environment of the study participants.

Further in relation to association between risk factors and level of depression it highlights that there is an association between the risk factor spontaneous abortion, anxious during pregnancy, demanded for dowry, alcoholic husband, type of delivery with Post-Partum Depression. These factors were similar to Saldanha D et al,2014, conducted a study on Incidence and evaluation of factors contributing towards postpartum depression. Findings of the study also supported by Heera Shenoy T, Remash K, Sheela Shenoy T (2019) conducted on Prevalence and determinants of postnatal depression in a tertiary care teaching institute in Kerala, India that low social support inadequate relationship with the in-laws was significantly associated with PND (p-0.003).

Limitations

This study is limited to a selected Community Health center, and hence, the findings cannot be generalized. A larger sample size in the community will be more authentic. Some factors assessed like relationship with husband and family, dowry system etc.were based on subjective reporting, and the validity of the same may be questionable.

Conclusion

Postpartum depression can begin anytime within the first year after childbirth. Symptoms may also include thoughts of hurting the baby, thoughts of hurting yourself, not having any interest in the baby.

It is difficult to predict which women will develop postpartum depression before birth. Proper identification of these risk factors during antenatal period with collaboration of obstetrician and psychiatrist can reduce morbidity associated with this group of disorders. Pregnancy screening and counseling will prevent the symptoms in the post -partum period.

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