

Original Article

## Hidden sufferers: Anxiety and Depression among Breast feeding mothers

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### Abstract

**Introduction:** Breast feeding is an emotional journey to mother. There is lot of physiological changes which occur during this time. . Postpartum depression can start soon after childbirth or as a continuation of antenatal depression and needs to be treated **Aims:** To assess the prevalence of anxiety and depression among breast feeding mothers and various factors associated with anxiety and depression. **Settings and Design:** Cross sectional study was carried out at Nandagudi Primary Health Centre, MVJ Medical College and Research Hospital field practice area, in rural Bangalore for three months duration from November 2017 to January 2018. **Methods and Material:** To assess the anxiety, Zung Anxiety scale and to assess depression Edinburgh depression scale (Edinburgh Postnatal Depression scale) were used. Statistical analysis used: descriptive statistics like frequencies and percentages and to check difference Independent t test and ANOVA was used. **Results:** Among 200 breast feeding mothers, around 147(74.5%) belonged to age group of 21-25 years, around 160(80%) were hindu by religion and rest were muslims. Around 90 (45%) belonged to nuclear family, 75(37.5%) belonged to joint family and 35(17.5%) belonged to three generation family. Among 200 study participants, 37.5% (75) were having anxiety which was assessed using Zung Anxiety scale. Among 200 study participants, 8% (16) had depression which was assessed using Edinburgh Depression Scale. **Conclusions:** The prevalence of anxiety and depression from the present study has given the picture of hidden suffers who are neglected because the symptoms coinciding with the normal physiological behaviour.

**Key-words:** Depression, Anxiety, Breast feeding mothers

### Introduction

Breast feeding is an emotional journey to a mother. There is lot of physiological changes which occur during this time. Breast feeding is a demanding condition both physiologically and psychologically. The mental abnormalities can be more evident during postpartum days. Postpartum psychiatric disorders can be divid-

ed into three categories which are postpartum blues, postpartum psychosis and postpartum depression. Postpartum blues are those which resolve in a few days to a week and has no or very few negative sequelae and usually requires only reassurance. Post-partum psychosis is a severe disorder with very obvious symptoms that begins within four weeks postpartum and requires hospitalization. Postpartum depression can start soon after childbirth or as a continuation of antenatal depression and needs to be treated. But the symptoms are so hidden that they are missed very often.<sup>[1]</sup> A meta-analysis has shown an average prevalence of 18%. The prevalence shows higher in low income countries explained with possible reasons of low educational attainment, ignorance, poor health care facilities and very im-

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portant is the social stigma attached to it.<sup>[2]</sup> Maternal state anxiety after childbirth is often understandable with highly demanding physical and emotional stress and lifestyle changes that occur after this major life event. Studies have assessed women at 6 months of postpartum have found prevalence of GAD to range of 6.1-7.7%.<sup>[3]</sup> Birth of child, Changing roles of partners, additional responsibility with more financial demand will definitely add on to the health status of mother. Mental abnormalities not only affect the health of mother but also it influences the nutrition on infant. So with this back ground the study was started with the objectives to assess the prevalence of anxiety and depression among breast feeding mothers and various factors associated with anxiety and depression.

## Material and Methods

It was a cross sectional study carried out among breast feeding mothers. Study was carried out at Nandagudi Primary Health Centre, MVJ Medical College and Research Hospital field practice area, in rural Bangalore for three months duration from November 2017 to January 2018. After informed written consent, the study was started. Sample size was calculated based on previous study.<sup>[4]</sup> It was around 170 and rounded off to 200. Mothers who had crossed 14 days of delivery were included in the study to avoid postpartum blues. Postpartum blues usually recedes by 2 weeks. Mothers who were already diagnosed with any mental abnormality during course of antenatal period or even before were excluded. A pretested semi-structured questionnaire was used to collect data regarding sociodemographic profile. To assess the anxiety, Zung Anxiety scale and to assess depression Edinburgh depression scale (Edinburgh Postnatal Depression scale) were used. Zung Anxiety scale is a 20-item self-report assessment device built to measure anxiety levels, based on scoring in 4 groups of manifestations which are cognitive, autonomic, motor and central nervous system symptoms. The total raw scores range from 20-80. The raw score then needs to be converted to an "Anxiety Index" score.<sup>[5]</sup> The Edinburgh Postnatal Depression Scale (EPDS) is a 10-item

questionnaire that was developed to identify women who have postpartum depression. Items of the scale correspond to various clinical depression symptoms, such as guilt feeling, sleep disturbance, low energy, anhedonia, and suicidal ideation. Overall assessment is done by total score, which is determined by adding together the scores for each of the 10 items. Higher scores indicate more depressive symptoms. The present study used recommended high cut-off of 13 and above to diagnose depression.<sup>[6]</sup> After informed consent, a pretested semi-structured questionnaire was used and data collected by interview technique. Data were entered in micro soft excel sheet and analyzed using SPSS v22. The results were expressed in mean and percentages and to find out association chi square test was applied and to find out statistically significant difference between various groups independent t test was used with level of significance defined as less than 0.05.

## Results

Among 200 breast feeding mothers, around 147(74.5%) belonged to age group of 21-25 years, around 160(80%) were hindu by religion and rest were muslims. Around 90 (45%) belonged to nuclear family, 75(37.5%) belonged to joint family and 35(17.5%) belonged to three generation family. Among 200 breast feeding mothers, 154(77%) were literates, 111(55.5%) were multigravida, 118 (59%) had female child and around 156 (78%) hemoglobin more than 11 gm%. Around 96 (48%) belonged to lower middle class and 75 (37.5%) belonged to middle class according to Modified BG Prasad Classification. All study participants followed Exclusive breast feeding. Among 200 study participants, 37.5% (75) were having anxiety which was assessed using Zung Anxiety scale. All those who had anxiety belonged to mild to moderate anxiety sub group. Among 200 study participants, 8% (16) had depression which was assessed using Edinburgh Depression Scale. Among 200 study participants, 5%(10) had distress which was assessed using Edinburgh Depression Scale. Edinburgh depression scale also tells about the distress. It was observed that mother with female children had higher scores compared to

male children, literates had higher scores, multigravida had higher scores compared to primigravida and mothers who had antenatal Hemoglobin percentage less than 11 gm% had higher scores ( $p$  value < 0.05). however moth-

ers who were hindu by religion , who had delivered the baby through normal vaginal delivery and those without complications during pregnancy had higher scores but was not statistically significant.

**Table 1.** Distribution of breast feeding mothers according to their socio-demographic profile

		Frequency	Percent
Age	15-20 years	19	9.5
	21-25 years	147	74.5
	26-30 years	34	16.0
Religion	Hindu	160	80.0
	Muslim	40	20.0
Family type	Nuclear	90	45.0
	Joint	75	37.5
	Three generation	35	17.5
Education status	Literate	154	77.0
	Illiterate	46	23.0
Parity	Primigravida	89	44.5
	Multigravida	111	55.5
Gender of baby born	Male	82	41.0
	Female	118	59.0
Hemoglobin level	More than 11	156	78.0
	Less than 11	44	22.0
BG Prasad Classification (Jan 2017)	Upper class	3	1.5
	Upper middle	11	5.5
	Middle class	75	37.5
	Lower middle class	96	48.0
	Lower class	15	7.5
Exclusive Breast Feeding	yes	200	100.0

**Table 2.** Distribution of breast feeding mothers according to anxiety and depression

	Frequency	Percent
Anxiety	75	37.5
Depression	16	8
Distress	10	5

**Table 3.** Comparison of EDS scores with various factors

		Mean (Std. Deviation)	P Value
Gender Of Baby	Male	2.1 ± 3.4	0.001
	Female	5.8 ± 2.9	
Religion	Hindu	4.5 ± 3.7	0.29
	Muslim	3.7 ± 3.3	
Educational Status	Literates	4.8 ± 3.7	0.001
	Illiterates	2.8 ± 2.6	
Mode Of Delivery	Normal vaginal delivery	4.5 ± 3.8	0.18
	Cesarean section	3.8 ± 3.2	
Parity	Primigravida	3.8 ± 3.3	0.04
	Multigravida	4.7 ± 3.8	
Complications In Pregnancy	With	3.4 ± 2.5	0.4
	With Out	4.4 ± 3.7	
Hemoglobin	Less Than 11gm%	3.1 ± 0.3	0.001
	More Than 11gm%	1.0 ± 0.1	

## Discussion

Among 200 breast feeding mothers, study showed 8% prevalence of depression which used Edinburgh Depression scale with high cut off of 13. Brown et al study done in UK using EDS showed prevalence of 14.7% which used the cut off 12.<sup>[7]</sup> Similarly, Patel et al study done in Goa revealed a high prevalence of 23% which also used EDS and Cut off taken 12.<sup>[4]</sup> However Hussain et al study revealed a low prevalence of 6% which also used EDS which was similar to present study.<sup>[9]</sup> Study done by Shriram et al using EDS also showed prevalence of 10% however study done by Savarimuthu et al showed a higher prevalence of 26.3%.<sup>[13,14]</sup> The present study showed lower prevalence of depression compared to many studies which could be because all mothers who participated in the study followed exclusively breast feeding and exclusively breast feeding itself is protective against depression.<sup>[8]</sup>

Among 200 breast feeding mothers, around 75 had mild to moderate anxiety with prevalence of 37.5% which was assessed using Zung Anxiety scale. Study done by Britton revealed 65.1% of breast feeding women had

anxiety disorder.<sup>[11]</sup> Study done by Paul et al revealed a low prevalence of 17% which used State Trait Anxiety Inventory (STAI).<sup>[12]</sup> There is a wide range of prevalence of anxiety in above mentioned studies and current study could be explained because of the different study tools and lack of no single standardized tool. The present study also shows distress among study participants. It was observed that mother with female children had higher scores compared to mothers with male children, literates had higher scores, multigravida had higher scores compared to primigravida and mothers who had antenatal Haemoglobin percentage less than 11 gm% had higher scores and the difference was statistically significant also with p value < 0.05. Strengths of the present study being using a validated tool to assess both anxiety and depression with a higher recommended cutoff limits can prevent over diagnosis. Usage of these tools took minimal timing and minimal training. They are easier to administer at household levels by a professional health worker. In spite of having lots of limitations, tools cannot override clinical diagnosis. Re-assessment using tools after two weeks were not done. Clinical assessment by professional would be always conclusive.

## Conclusion

Its time now (Reframe) that Postnatal visits by community health workers should also focus on mental health which is missed in the continuum of care in any models. With steady decline in maternal mortality, the next focus should be on maternal morbidity reduction which should also focus on maternal mental health

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