



## A STUDY OF BREAST FEEDING PRACTICES IN THE RURAL COMMUNITY OF BELLARY TALUK

Chandrashekar K<sup>1</sup>, Bellara Raghavendra<sup>2</sup>, Pavithra BM<sup>3</sup> and T.Gangadhara Goud<sup>4</sup>

<sup>1</sup>Assistant Professor, Dept of Obstetrics and Gynaecology, <sup>2</sup>Assistant Professor, Dept of Community Medicine, <sup>3</sup>Post Graduate, <sup>4</sup>Professor and Head, Dept of Community Medicine, Vijayanagara Institute of Medical Sciences, Bellary, Karnataka, India.

Corresponding Author:- **Bellara Raghavendra**

**E-mail:** bellararaghu@gmail.com

### Article Info

Received 27/12/2014

Revised 05/01/2015

Accepted 22/01/2015

### Key words:

Exclusive breast feeding, Prolactal feeding, Colostrum feeding, Early initiation,

### Abstract

Given the recognized benefits of breastfeeding for the health of the mother and infants, the World Health Organization (WHO) recommends exclusive breastfeeding (EBF) for the first six months of life. However, the prevalence of EBF is low globally in many of the developing and developed countries around the world. The present study was undertaken to know the breast feeding practices in the rural community of Bellary taluk. A longitudinal descriptive study was conducted in one of the PHC of Bellary district during the period from 2013 to 2014, where in 108 pregnant women who have completed 32 weeks of gestation were enrolled and this cohort of pregnant mothers were included for the study. Every month this cohort was followed by home based visits until the infant was 6 months old. During the visits information was collected from the mothers regarding optimal breast feeding practices like early initiation, colostrum feeding, exclusive breast feeding, duration of breast feeding and techniques of breast feeding. Baby weight was seen after six months. The data was analysed using Epi-info software. The proportion of mothers practicing early initiation of breast feeding was 14.2%, 61% of them practiced colostrum feeding, 55% of mothers gave prolactal feeds to the new born baby and the practice of exclusive breast feeding during the sixth month was only 20%. There is need to improve the breast feeding practices in the community there by help in maintaining optimal baby weight.

### INTRODUCTION

Every woman wants to breast feed her babies but exclusive breast feeding for optimal duration is rarely being practiced in many parts of the world. Breast Feeding and Lactational Management Committee of Indian Academy Of Pediatrics conducted a National Survey on infant feeding practices in the year June-2001 by taking 2500 cases form all district branches attached to Indian academy of paediatrics. It was found that delayed initiation is widely prevalent and exclusive breast feeding was practiced only in 16% of the cases and the same was evident from the data from multiple cluster 2000 from UNICEF India showed that exclusive breast

feeding is practiced in 15% only [1]. The promotion and support of breast feeding is a global priority.

A vast scientific literature demonstrates substantial health, social and economic benefits associated with appropriate breast feeding, including lower infant morbidity and mortality from diarrhoea and other infectious diseases.

Hence this study was done to assess the breast feeding practices in a rural community of a primary health centre in Bellary taluk.



**METHODOLOGY**

We conducted a prospective study at Kudithini Primary Health Centre, Bellary district which comprises of 6 subcentres. After taking informed consent, pregnant mothers who have completed 32 weeks of gestation and delivered normal term baby and who can adequately breast feed their babies were selected for the study. HIV positive mother, mother with prolonged illness which can interfere with breast feeding and mothers of preterm babies were not included in the study. The pregnant mothers were enrolled from July 1<sup>st</sup> 2013 to 30<sup>th</sup> December 31<sup>st</sup> 2014.

Data collectors were trained in assessing the optimal breast feeding components. Pre-post training evaluation of participants was done. This training programme was conducted by trainers certified by National Task Force. Nine home-based counselling visits were scheduled, with three early postpartum visits (first day of delivery and third and seventh day after delivery) and monthly visits thereafter until the infant was 6 months old.

During the visits data collectors collected information from the mothers regarding optimal breast feeding practices like early initiation, prelacteal feeding, colostrum feeding, exclusive breast feeding, duration of breast feeding and techniques of breast feeding and baby weight. Exclusive breast feeding implies giving newborn infants no food or drink other than breast milk (including milk expressed or from wet nurse). It allows the infant to receive drops, syrups (vitamins and minerals, medicines). It does not allow the infant to receive anything else [2]. Prelacteal feeds refers to any fluid or food given before colostrum.

Statistical analysis was done using Epi-info software and appropriate descriptive statistics were used to analyse the findings and to draw the inferences.

**RESULTS**

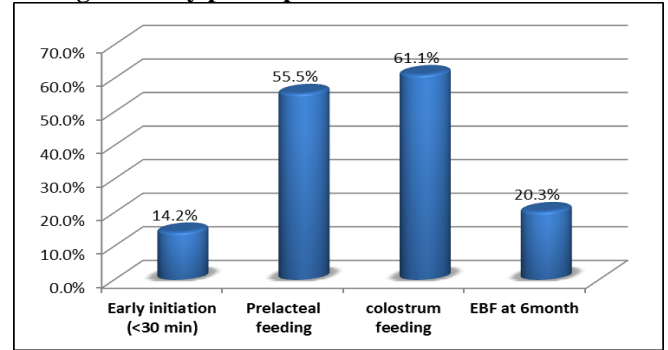
A total of 108 pregnant women who have completed 32 weeks of gestation participated in the study. Majority of the pregnant mothers were in the age group of 21-30 years age group (75.8%) and nearly 15% were less than 21 years. Most of the participant were Hindus (90.7%) and 61% were from joint family. More than half of them (61%) were from lower socio-economic class (income less than 3000 per month) and majority of the pregnant mothers had studied up to high school (81.4%) and were housewives (90.7%).

About one fourth of them had a obstetric score of para one, nearly 41% had a score of para two and

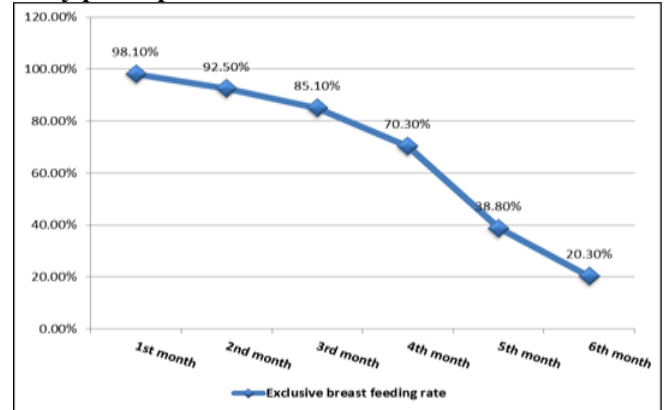
remaining were multipara. The breast feeding practices (outcome variables) were assessed in study participants where in early initiation of breast feeding was seen in 14.2% of mothers who delivered by normal vaginal delivery and in 20% of the mothers who delivered by Caesaerean section. The prelacteal feeding to the newborn infants was seen in 55.5% of infants. Only 61% of mothers practiced colostrum feeding. Majority of the mothers in both the groups practiced exclusive breast feeding for the first three months (1<sup>st</sup> month 98.1%, 2<sup>nd</sup> month 92.5% and 3<sup>rd</sup> month 85.1%).

However from the fourth month onwards there was appreciable decline in the rates of exclusive breast feeding from 85% in the third month to only 20% during the sixth month. At the end of six months, the mean weight of the infants 6.66/0.7 kg.

**Figure 1. Breast feeding practices among the study participants**



**Figure 2. Exclusive breast feeding rate among the study participants**



**Table 1. Socio-demographic Profile of the study participants**

Socio-demographic factors		Frequency (%)
Age in completed years	< 21	16(14.8%)
	21-25	56(51.8%)



	26-30	26(24.0%)
	>30	10(9.2%)
Religion	Hindus	98(90.7%)
	Muslim	10(9.2%)
Type of family	Nuclear	42(38.8%)
	Joint	66(61.1%)
Monthly Family income	< 1000	12(11.1%)
	1000-3000	54(50.0%)
	3000-5000	28(25.9%)
	> 5000	14(12.9%)
Mother's education	Illiterate	14(12.9%)
	Primary	6(5.5%)
	High school	88(81.4%)
	Graduate	0(0.0%)
Mother's occupation	Skilled	4(3.7%)
	Unskilled	6(5.5%)
	Housewife	98(90.7%)
Total participants		108(100%)

**Table 2. Obstetric profile of the study participants**

Obstetric profile		Frequency (%)
Para	1	28(25.9%)
	2	44(40.7%)
	3	26(24.0%)
	4	6(5.5%)
	5	4(3.7%)
Place of delivery	Home	32(29.6%)
	Govt. hospital	24(22.2%)
	Pvt.Hospital	52(48.1%)

**Table 3. Breast feeding practices in the study group**

Outcome variables		Frequency (%)
<b>Initiation of Breast feeding</b>		
FTNVD	Early initiation (<30 min)	7(14.2%)
	Late initiation (>30 min)	42(85.7%)
Caessaerean Section	Early initiation (< 4hrs)	1(20.0%)
	Late initiation (> 4hrs)	4(80.0%)
Prelacteal feeding	Yes	30(55.5%)
	No	24(44.4%)
Colostrum feeding	Yes	33(61.1%)
	No	21(38.8%)
Exclusive breast feeding	1st month	53(98.1%)



	2nd month	50(92.5%)
	3rd month	46(85.1%)
	4th month	38(70.3%)
	5th month	21(38.8%)
	6th month	11(20.3%)
Baby weight after 6 months	Mean Baby weight $\pm$ SD	6.66 $\pm$ 0.774

## DISCUSSION

### Breast feeding initiation

In our study significantly more number of mothers did not initiate early breast feeding (82%). This could be because significant number of mothers felt that there was no milk secretion within 48 hours. Breastfeeding initiation is delayed across the country because of the belief that mother's milk does not "come" at the time of childbirth; but flows two to three days later [3] Reissland N et al. There are many myths and beliefs which influence this practice of early initiation.

### Colostrum feeding

In our study 61% of babies were given colostrums. Many socio-cultural barriers that may prevent the mothers from giving colostrum to their babies. In a study done by Akram et al [4] on promotion of breast feeding showed that the colostrum was given by 3% of mother in the control group. In another study conducted by Savina G et al [5], on the effect of breast feeding education programme on lactational amenorrhoea in Phillippines showed that significantly more experimental mothers reported feeding colostrum to study infants compared to their previous children with no significant difference in the control group.

### Exclusive breast feeding:

In our study majority of the mothers practiced exclusive breast feeding for the first three months. However from the fourth month onwards there was appreciable decline in the rates of exclusive breast feeding from 85% in the third month to only 20% during the sixth month. Breastfeeding is extensive in India, however, the exclusive breastfeeding rate was 19% in 1998-1999 at six months [NFHS-2] [6], and in 2005-2006 it was 46.3% at less than six months [UNICEF Global Database] [7].

A community-based intervention promoting EBF in Haryana State, India, was conducted by Bhandari et al [8], where they utilized traditional birth attendants, community health workers, community representatives, nurse midwives and other health-care workers, to deliver EBF messages and they found that infants in the interventional group were exclusively breast feed at 3, 4, 5 and 6 months postpartum, compared to controls.

A similar community-based randomized trial was conducted in Dhaka, Bangladesh to assess the effect of PC on EBF rates by Haider et al [9]. Where women in the

interventional group who were given 15 home based counselling visits were significantly more likely to exclusively breastfeed throughout 5 months postpartum, compared to controls.

In another study conducted by Agrasada et al [10], in Philippines showed significantly higher rates of exclusive breast feeding at 6 months postpartum among mothers in the PC group (44%), compared to the reference (7%) and control groups (0%).

In a similar study done by Anderson et al [11], in Hartford, revealed that women in the interventional group, at 3 months postpartum, were almost 15 times more likely to be exclusively breastfeeding compared to controls.

In a randomized control trial conducted by Morrow et al [12], in Mexico found that exclusive breast feeding rates from birth to 3 months were highest in the group receiving six home visits, followed by those receiving three home-visits, and lowest in the control group. The EBF rate of the intervention groups (combined) was significantly greater than that of controls.

To promote breast feeding in the community, Davies-Adetugbo et al [13] conducted a study in Nigeria among mothers of young infants suffering from acute diarrhoea, where the intervention group received 3 breastfeeding peer counselor contacts along with advice for diarrhoea management while controls only received the latter. They found that the proportion of mothers exclusively breastfeeding was significantly ( $p < 0.0001$ ) higher in the intervention group than in controls at day 7 (49% vs. 6%) and day 21 (46% vs. 8%).

In Brazil, Leite et al [14] conducted a home based peer counselling trial to promote initiation and duration of breast feeding among mothers of low birth weight infants, found that significantly higher rates of EBF at 4 months postpartum in the intervention when compared to control group. Similarly, in the telephone-based PC intervention evaluated by Dennis et al [15]

EBF rates were significantly higher throughout the study in the intervention (vs control) group. These studies suggest that, in some settings, PC programs, which are designed to promote initiation or duration, may actually improve breastfeeding exclusivity as well.

In a study done by Froozani MD et al [16] on effect of breast feeding education on the feeding pattern and health of infants in their 4<sup>th</sup> month in Islamic Republic



Iran showed that exclusive breast feeding rates were significantly higher in the study group (54%) than the control group (6.5%).

The high rates of premature cessation of breast feeding are due to the inadequate assistance to mothers who are willing to breast feed their infants.(Jones d et al) [17]. Therefore education and support plays a pivotal role in shaping the frame work of lactation and breast feeding.(Wright A et al) [18]. In a country like India, where 3/4<sup>th</sup> of the population resides in rural areas, a continual, comprehensive and culturally appropriate breastfeeding education support through counselors (be they doctors, nurses, midwives, lactation consultants or peer counselors) during the prenatal period, intranatal and postnatal period both at hospital and at home may be critical for facilitating breastfeeding among mothers, especially those belonging to the low-income groups.

The incidence of breastfeeding is primarily affected by prenatal education, whereas the duration and exclusivity of breastfeeding is affected by both prenatal and postpartum management. (Brent NB et al, Aksu H et al) [19,20]. Apart from increasing the incidence of exclusive breast feeding, the continued social education

support has also beneficial effects on health of the mothers during pregnancy and labor. (Cohen S et al, Elbourne D et al, Matich JR et al) [21-23].

## CONCLUSIONS

In our study, we found that practices like delayed initiation of breast feeding, prelacteal feeding, discarding colostrums are still widely prevalent. The practice of exclusive breast feeding is practiced only in the initial days which gradually decreased in the subsequent months after delivery.

## ACKNOWLEDGEMENTS

We thank all the mothers and their babies who participated in the study, without whom this study would not have been possible. The authors thank all the staff members of community medicine of VIMS Bellary for their guidance and support. The authors are also grateful to authors/editors/ publishers of all those articles, journals and books from where the literature for this article has been reviewed and discussed.

## REFERENCES

1. Multiple indicator cluster survey. (2000). MICS-II, India Country Officer.
2. Gupta A, Mathur GP, Jindal T, Dadhich JP. (2003). Breastfeeding. BPNI Technical Info Series-2.
3. Reissland N, Burghart R. (1988). The quality of a mother's milk and the health of her child, Beliefs and practices of the women of Mithila. *Social Science and Medicine*, 27(5), 461-469.
4. Akram DS, Agboatwalla M, Shamsad S. (1997). Effect of intervention on promotion of breast feeding. *Journal of Pakistan Medical Association*, 47, 46-48.
5. Savina G, Kennedy K. (1989). The effect of Breast feeding education programme on lactational amenorrhoea in the Phillipines. *Study Fam Plan*, 20, 203-215.
6. National Family Health Survey. (2000). (NFHS-2), 1998-1999 International Institute for Population Sciences and ORC MACRO, Calverton, Maryland, USA.
7. UNICEF Global Database on Breastfeeding (2000-2006)
8. [[http://www.childinfo.org/breastfeeding\\_countrydata.php](http://www.childinfo.org/breastfeeding_countrydata.php)] website. Child info monitoring the situation of children and women.
9. Bhandari N, Kabir A, Salam M. (2008). Mainstreaming nutrition into maternal and child health programmes, scaling up of exclusive breastfeeding. *Maternal and Child Nutrition*, 4, 5-23.
10. Haider R, Ashworth A, Kabir I, Huttly S. (2000). Effect of community-based peer counselors on exclusive breastfeeding practices in Dhaka, Bangladesh, a randomized controlled trial. *Lancet*, 356, 1643-1647.
11. Agrasada G, Gustafsson J, Kylberg E, Ewald U. (2005). Postnatal peer counseling on exclusive breastfeeding of low-birthweight infants, A randomized, controlled trial. *Acta Paediatrica*, 94, 1109-1115.
12. Anderson A, Damio G, Young S, Chapman D, Pérez-Escamilla R. (2005). A randomized trial assessing the efficacy of peer counseling on exclusive breastfeeding in a predominantly Latina low-income community. *Arch Pediatr Adolesc Med*, 159, 836-841.
13. Morrow A, Guerrero M, Shults J et al. (1999). Efficacy of home-based peer counselling to promote exclusive breastfeeding, A randomized clinical trial. *Lancet*, 353, 1226-1231.
14. Davies-Adetugbo A, Adetugbo K, Orewole Y, Fabiyi A. (1996). Breast-feeding promotion in a diarrhoea programme in rural communities. *Journal of Diarrhoeal Diseases Research*, 14(1), 5-11.
15. Leite A, Puccini R, Atalah A, Da Cunha A, Machado M. (2005). Effectiveness of home-based peer counselling to promote breastfeeding in the northeast of Brazil, A randomized clinical trial. *Acta Paediatrica*, 94, 741-746.
16. Dennis C-L, Hodnett E, Gallop R, Chalmers B. (2002). The effect of peer support on breast-feeding duration among primiparous women, a randomized controlled trial. *CMAJ*, 166, 21-28.



17. Froozani M D, Permezhadeh K, Dorosty Motlagh A R, Golestan B. (1999). Effect of breast feeding education on the breast feeding pattern and health of infants in their 4<sup>th</sup> month in Islamic Republic Iran. *Bull World Health Organization*, 5, 381-5.
18. Jones DA, West RR. (1985). Lactation nurse increases duration of breast feeding. *Arch Dis Child*, 60(8), 772-774. doi, 10.1136/adc.60.8.772.
19. Wright A, Rice S, Wells S. (1996). Changing hospital practices to increase the duration of breastfeeding. *Pediatrics*, 97(5), 669-675.
20. Brent NB, Redd B, Dworetz A, D'Amico F, Greenberg JJ. (1995). Breast-feeding in a low-income population. Program to increase incidence and duration. *Arch Pediatr Adolesc Med*, 149(7), 798-803.
21. Aksu H, Kucuk M, Duzgun G. (2011). The effect of postnatal breastfeeding education/support offered at home 3 days after delivery on breastfeeding duration and knowledge, a randomized trial. *J Matern Fetal Neonatal Med*, 24(2), 354-61.
22. Cohen S, Syme SL. (1985). *Social support and health*. Orlando, Harcourt Brace Jovanovich.
23. Elbourne D, Oakley A, Chalmers I. In, *Effective care in pregnancy and childbirth*. Chalmers I, Enkin M, Keirse M, editor. Oxford, Oxford University Press, 1989. Social and psychological support during pregnancy, 221-236.
24. Matich JR, Sims LS. (1992). A comparison of social support variables between women who intend to breast or bottle feed. *Soc Sci Med*, 34(8), 919-927.

