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Research Article

Assessment of Status of Baby Friendly Hospital Initiative in Two Selected Tertiary Level Hospitals in South India

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Abstract

Purpose: To assess the status of baby friendly hospital initiative in selected teaching hospitals in Bangalore.

Methods: Implementation of Baby Friendly Hospital Initiative (BFHI) in two selected teaching hospitals in Bangalore, South India was assessed through a cross sectional study where post natal mothers and staff in charge of postnatal wards were interviewed using a pretested semi-structured questionnaire, and also direct inspection of hospital was done using a check list.

Results: Early initiation of breast feeding was seen only in 12% and 10% of mothers in government hospital and private hospital respectively. Practice of giving colostrums was found to be better in government hospital ($p < 0.05$), practice of giving top feeds was more in private hospital ($p < 0.05$). Nearly 64% of mothers in the government hospital and 20% in the private hospital ($p < 0.01$) were helped by staff during difficulty in feeding. Post graduates had better knowledge compared to nurses and interns on components of exclusive breast feeding.

Conclusion: Though both the hospitals were certified BF (Baby Friendly) hospitals, practice of exclusive breast feeding was found better in government hospital. This study identified the need of periodic and regular training programs on BFHI to educate the staff.

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Introduction

Breast feeding practice lowers the infant morbidity and mortality by reducing the occurrence of infectious diseases; it provides an ideal nutrition for infants and helps in their healthy growth and development. It also reduces the risk of breast and ovarian cancer and because of lactational amenorrhea, increases the spacing between pregnancies and hence indirectly helps in socio economic growth of the family and the country [1].

Exclusive breastfeeding, is central to achieving the United Nations' Millennium Development Goal 4 for child survival [2]. The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) have implemented a number of strategies to protect and promote breastfeeding globally. One of these strategies, launched in 1991-1992 is the Baby Friendly Hospital Initiative (BFHI). It is a global initiative aimed at changing practices in maternity facility so as to support breast

feeding and is based on the ten steps to successful breastfeeding [1].

The global criteria for Breast Feeding Hospital Initiative (BFHI) serve as a standard for measuring adherence to each of the 10 steps for successful breast-feeding [3]. Since its launch, BFHI has expanded with more than 152 countries around the world implementing the initiative [1]. In South Asia, over 1645 health facilities have attained BFHI accreditation and over 1250 Indian hospitals have received accreditation [4].

The Baby Friendly Hospital Initiative (BFHI) is considered as one of the most successful international effort ever performed to protect, promote and support breastfeeding [5]. The Baby Friendly Initiative has increased breastfeeding rates, reduced complications and improved mother's health care experiences [6]. An estimated 1.30–1.45 million child deaths could be prevented each year with improved breastfeeding practices

[7,8]. Studies have shown that Infants born in BFHs (Baby Friendly Hospitals) are more likely to be breast fed in the first hour of life and birth in a BFH also correlated with significant less pacifier use [9]. Protecting, promoting, and supporting infant and young child feeding is essential for the healthy growth and development of children. Hospitals play a pivotal role in promoting the breast feeding by following BFHI. Hence the current study intends to investigate the status of such initiative in two selected certified Baby Friendly Hospitals in Bangalore.

Methods

The study was conducted in two selected hospitals in Bangalore, South India, using a cross sectional study design from June to July 2010. One was a private hospital run by a private management and another was a government hospital; both were multi specialty - tertiary care hospitals located in Bangalore. Both were referral hospitals attached to medical colleges, and were certified "baby friendly hospitals".

The data was collected from three groups i.e, post natal mothers, trainee doctors and nursing staff of the hospitals who were administered semi structured questionnaire which was

pretested for validity and reliability through pilot study.

Review of literature relating to the proportions of mothers initiating breast feeding within one hour after delivery in baby friendly and non baby friendly hospitals was found to be 50% and 36.5% respectively [10]. Considering the above values, the sample size was calculated keeping a relative precision of 10% and alpha error of 5% and a total of 50 postnatal mothers from each hospital were selected for the study.

Post natal mothers were assessed for the practice of exclusive breast feeding as per BFHI. Data on demographic profile (socio economic status was assessed using modified Kuppaswamy's classification), breast feeding i.e initiation of breastfeeding within half an hour, breast feeding even if mother and child are to be separated, only exclusive breast feeding, rooming in, demand feeding which are part of 10 steps of BFHI were collected.

Staff in charge of post natal wards i.e. nurses and trainee doctors (post graduates and interns) formed the second and the third group for the data collection respectively. They were interviewed to assess their knowledge towards breast feeding practices.

Table 1. Comparison of feeding practices among post natal mothers in two hospitals in Bangalore

| Feeding practices | Government hospital (N=50) n (%) | Private hospital (N=50) n (%) | P value |
|---------------------------------------------------------|-------------------------------------|----------------------------------|---------|
| Initiation of breast feeding within 1/2hr | 6(12) | 5(10) | NS |
| Prelacteal feeds given | 12(24) | 18(36) | NS |
| Colostrum given | 44(88) | 32(64) | 0.017 |
| Demand feeding | 28(56) | 22(44) | NS |
| Rooming in practiced | 30(60) | 30(60) | NS |
| Top feeds given | 8(16) | 17(34) | 0.032 |
| Mother helped by staff in case of difficulty in feeding | 32(64) | 10(20) | 0.007 |
| NS: Statistically non-significant | | | |

BFHI practice was also assessed using an observational checklist which included points on the display of ten essential criteria in prominent places, display of advertisement on infant milk substitutes in the hospital ward and premises, presence of any artificial teats or feeding bottles in postnatal wards, monitoring of feeding practices by support staff, stock and sales of infant milk substitutes, artificial teats and feeding bottles in the attached pharmacy and presence of a BFHI coordinator.

Data were subsequently analyzed using SPSS 10 statistical software package. Chi square test was used to test the differences in feeding practices among the mothers. Statistical significance was considered at $p < 0.05$.

The interview was conducted following an approval from the institutional ethical committee and obtaining an informed written consent from the mothers.

Results

A total of 100 postnatal mothers were included in the study i.e.50 post natal mothers were interviewed from each of the hospitals. Their mean age was 24.5 years (± 3.4 years). Among them, 14 (28%) from government hospital and 6 (12%) in the private hospital were not literate. Majority of the mothers 33(66.6%) were housewives and most of the mothers 36 (72%) in government hospital & 30 (60%) in private hospital belonged to lower middle socio economic class. Nearly 40 (80%) and 30

(60%) of deliveries were normal in government and private setting respectively.

Only 6 (12%) of postnatal mothers in the government hospital and 5 (10%) of the postnatal mothers in the private hospital initiated breastfeeding within half an hour of their delivery. But more than three-fourths, 44(88%) of mothers in government hospital and 32 (64%) of them in private hospital had given colostrums to their newborns ($p < 0.05$). A negative practice of giving top feeds was practiced among 8 (16%) and 17 (34%) of mothers respectively in government and private hospital ($p < 0.05$) in the present delivery. Nearly 32 (64%) of mothers in government hospital and 10 (20%) in private hospital ($p < 0.01$) were helped by staff during difficulty in feeding (Table 1).

Nearly 48 (96%) of the postnatal mothers in government hospital and 32 (64%) in private hospital were informed post delivery on early initiation, frequency, duration and benefits of breast feeding and harms of bottle feeding by the health staff. But there was no support to breast feeding when baby was in ICU i.e. separated from mother in the private hospital.

Knowledge of nurses, interns and post graduates posted in post natal ward on early initiation, rooming in, importance of colostrum, duration and meaning of exclusive breast feeding, and awareness of Infant Milk Substitutes (IMS) act in both hospital is depicted in Figure 1, 2 and 3. Knowledge of nurses, in both the hospitals regarding duration of exclusive breast feeding and awareness about IMS act was found to be poor (Figure 1). Post graduates compared to nurses and interns had better knowledge on components of exclusive breast feeding (Figure 3).

Training of staff in BFHI was found to be irregular in both the hospitals.

Discussion

Observations made by using check list showed that both the hospitals had displayed 10 steps of BFHI in both local and English language at relevant places. There were no advertisements of Infant Milk Substitute act products in both the hospitals but artificial teats and feeding bottles were found in few wards in both the hospitals. Pharmacy attached to private hospital was selling infant formulas and feeding bottles. Also, there were no cradles in the postnatal wards in either of the hospitals and there were trained BFHI staff in both the hospitals.

Conclusion

One of the most important steps in successful breastfeeding is the initiation of breastfeeding within 30 minutes to 1 hour of birth. The present study has shown that in both the baby friendly hospitals, initiation of breast feeding within 30 minutes of delivery was nearly 10-12% which is similar to studies in other baby friendly hospitals. [11-13]

Support and counseling should be available routinely during ante-natal care to prepare the mothers at the time of birth to help them initiate breastfeeding and in the postnatal period to ensure that breastfeeding is fully established. However, in our study it was seen that in both the hospitals not more than 1% of the mothers were prepared to breast feed the child during their regular antenatal visits.

Practice of giving colostrum was good in both the hospitals (88% in government hospital and 64% in private hospital). Nearly 96% of the mothers in government hospital and 64% in private hospital were informed post delivery by health staff on early initiation, frequency, duration and benefits of breast feeding and harms of bottle feeding. In spite of it, practice of pre lacteal feeds (24% in government hospital and 36% in private hospital), top feeds (16% in government hospital and 34% in private hospital) was found in both the hospitals showing that mere imparting of information to improve knowledge does not improve the practice, stressing the results of study conducted at Karachi which showed that although 57% of mothers had good knowledge about feeding patterns and practices, their attitudes were not very positive i.e. only 30% had highly positive attitudes. It was also seen that even if the attitude is positive and the knowledge insufficient, the practices were not desirable (only 27% mothers were with positive practices) [14]. Most common reason that we found in our study for giving pre lacteals or top feeds was baby being kept in ICU

and lack of co-ordination between OBG and pediatric department.

Knowledge of nurses in both the hospitals regarding duration of exclusive breast feeding and awareness about IMS act was poor. Post graduates compared to nurses and interns had better knowledge on components of exclusive breast feeding which is comparable to a study done by Okolo (2002) shows that doctors had better knowledge compared to other health care staff [15].

There were no frequent regular training programs in either of the hospitals to equip health staff to promote exclusive breast feeding. The quality of knowledge and support has a crucial role in the success of breastfeeding promotion [16]. Studies have shown that medical and paramedical personnel who are not adequately trained to counsel mothers on breastfeeding impact negatively to the optimal practice of breastfeeding due to knowledge gaps [15-17]. The knowledge, attitude and practice of health workers play a major role for successful breast feeding policy implementation as shown in a study that there was general lack of awareness of some major recommended practices in the hospital to promote and sustain breastfeeding [15].

Conclusions

Though both the hospitals were certified baby friendly hospitals, practice of exclusive breast feeding was inadequate. Compared to private teaching hospital, practice and implementation of Baby Friendly Hospital Initiative in government teaching hospital was better. Knowledge of hospital staff in both the hospital was inadequate. More regular training programmes are required to update the knowledge of staff regarding Baby Friendly Hospital Initiative. Communication between OBG and pediatric department should be established well, so that the mothers can provide expressed milk to babies in ICU. Preparing the antenatal mothers and supporting them during their post natal period in establishing exclusive breast feeding is of utmost priority. Regular monitoring and evaluation of the hospitals is essential in better implementation of Baby Friendly Hospital Initiative.

Limitations of the study: This study was done in selected baby friendly hospitals. This should be taken into account interpreting the generalizability of results.

Conflict of interests: The authors declare no conflict of interest.

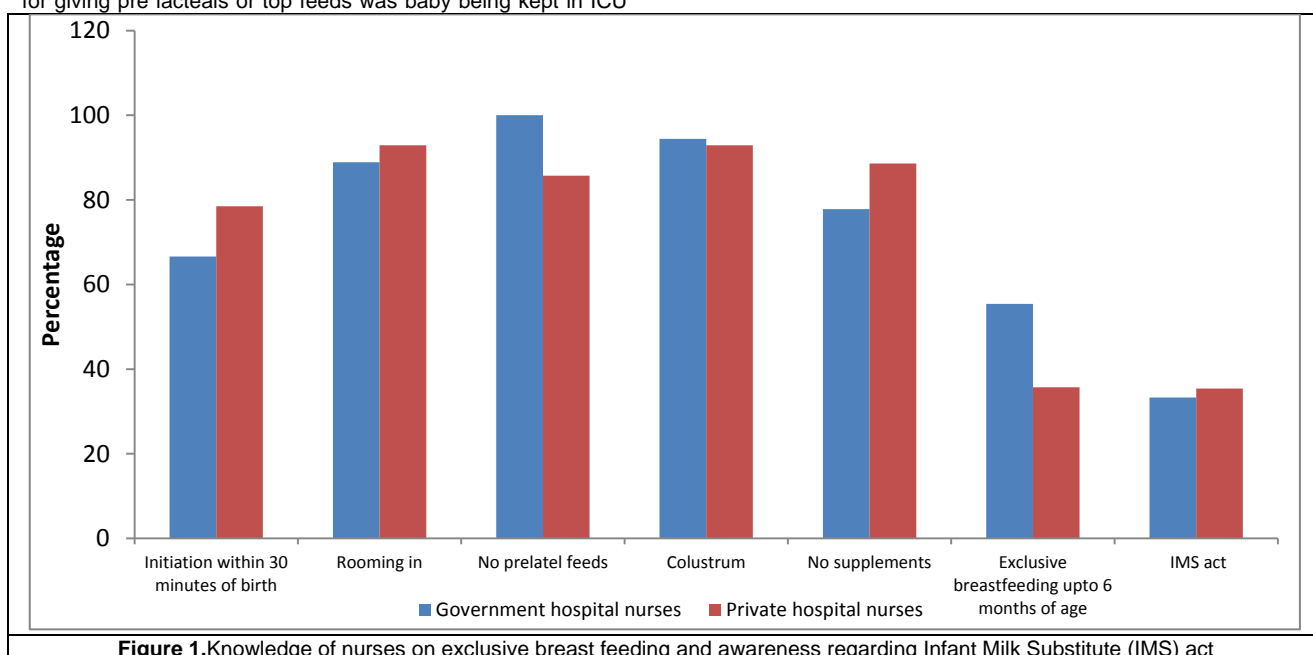


Figure 1. Knowledge of nurses on exclusive breast feeding and awareness regarding Infant Milk Substitute (IMS) act

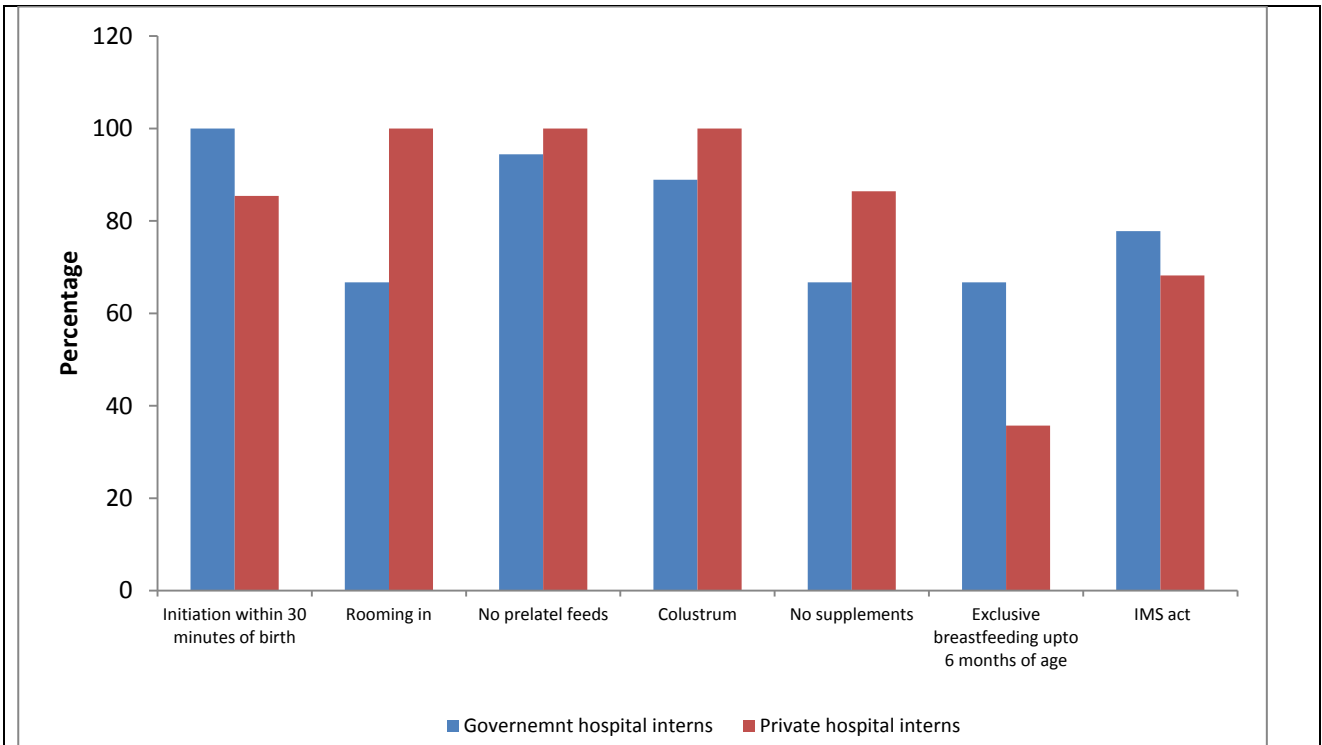


Figure 2. Knowledge of interns on exclusive breast feeding and awareness regarding Infant Milk Substitute (IMS) act

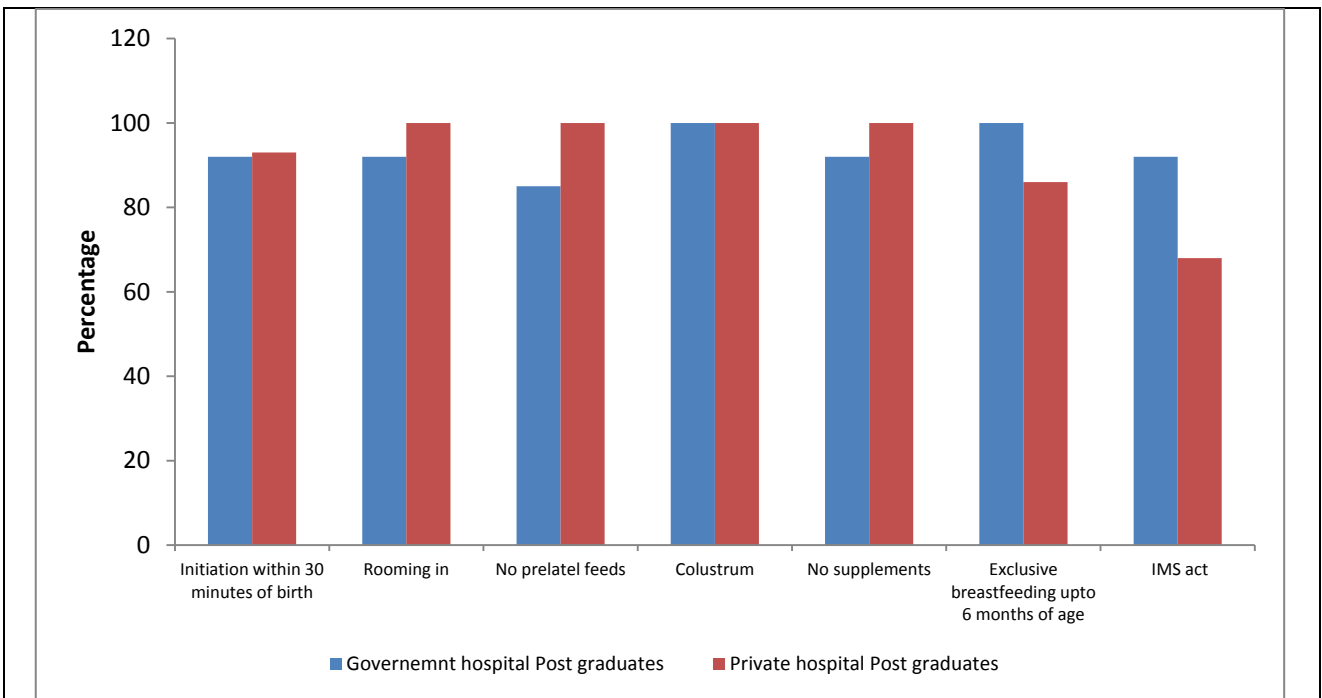


Figure 3. Knowledge of post graduates on exclusive breast feeding and awareness regarding Infant Milk Substitute (IMS) act

References

1. UNICEF: The Innocenti Declaration on the protection, promotion and support breastfeeding. New York: UNICEF, 1990. [<http://www.unicef.org/programme/breastfeeding/innocenti.htm>]
2. United Nations Millennium Development Goals. [<http://www.un.org/millenniumgoals/childhealth.shtml>]
3. Baby-friendly hospital initiative: revised, updated and expanded for integrated care. Section 1: Background and implementation. World Health Organization and UNICEF; 2009.
4. Baby Friendly Hospital Initiative. UNICEF. [<http://www.unicef.org/programme/breastfeeding/assets/statusbfhi.pdf>]
5. Chalmers B: The Baby Friendly Hospital Initiative: where next? *BJOG* 2004, 111:198-
9. Venancio SI, Saldiva SRDM, Escuder MML, Giugliani ERJ: The Baby-Friendly Hospital Initiative shows positive effects on breastfeeding indicators in Brazil. *J Epidemiol Community Health* 2012, 66(10):914–18. doi:10.1136/jech-2011-200332.
10. Breast feeding Promotion Network of India. Report of all India study of newborn care, infant feeding practices and implementation of the "Infant Milk Substitutes, Infant Foods and Feeding Bottles (Regulation Of Production, Distribution And Supply) Act, 1992." in the hospital settings, and infant feeding practices in the catchment area of these hospitals. Breast feeding Promotion Network of India; 2000.
11. Dasgupta A, Bhattacharya S, Das M, Chowdhury KM, Saha S: Comparative study before and after introduction of BFHI in CNMC, Calcutta. *Journal of the Indian Medical Association* 1997, 95(6):169-71, 195.
12. Soomro JA, Hashmi A, Iqbal Z, Soomro TK: Role of baby friendly hospital initiative on knowledge and practices of nursing mothers. *Journal of Pediatric Sciences* 2012, 4(1):e1217.
199. doi: 10.1111/j.1471-0528.2004.00069.x.
6. Philipp BL, Radford A: Baby-Friendly: snappy slogan or standard of care? *Arch Dis Child Fetal Neonatal Ed* 2006, 91(2):F145-9. doi:10.1136/adc.2005.074443
7. Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS: How many child deaths can we prevent this year? *The Lancet* 2003, 362(9377):65–71. doi:10.1016/S0140-6736(03)13811-1.
8. Lauer JA, Betrán AP, Barros AJ, De Onís M: Deaths and years of life lost due to suboptimal breast-feeding among children in the developing world: a global ecological risk assessment. *Public Health Nutrition* 2006, 9(6):673–85. doi:10.1079/PHN2005891.
13. Khichi GQK, Channar MS, Waraich E, Bajwa SN: Patterns of breast feeding in children under two years of age in Bhawalpur. *PJMS* 2001, 17(2):94-98.
14. Mufti K: Infant feeding practices knowledge attitude and practices of Infant feeding amongst mothers. *Ann Abbasi Shaheed Hosp Karachi Med Dent Coll* 2002, 7(2): 322-324.
15. Okolo SN, Ogbonna C: Knowledge, attitude and practice of health workers in Keffi local government hospitals regarding Baby Friendly Hospital Initiative (BFHI) practices. *Eur J Clin Nutr* 2002, 56: 438-41. doi:10.1038/sj/ejcn/1601331.
16. Issler H, Rodrigues de Sá MBS, Senna DM: Knowledge of newborn healthcare among pregnant women: basis for promotional and educational programs on breastfeeding. *Sao Paulo Med J* 200, 119(1):7-9. doi:10.1590/S1516-31802001000100003.
17. Owoaje ET, Oyemade A, Kolude OO: Previous BFHI training and nurses' knowledge, attitudes and practices regarding exclusive breastfeeding. *Afr J Med Med Sci* 2002; 31: 137–140.