Knowledge and Practices about Breast Feeding in Accordance with the National Policy among Mothers in Baby Friendly Hospital

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**Abstract**

Breast milk is essential for the baby. All babies should receive exclusive breast milk for 6 months. The aim of Baby Friendly Hospital Initiative by WHO/UNICEF is to promote exclusive breast feeding. Hospitals which follow the steps of successful breastfeeding are accredited Baby Friendly status. But the practice of these steps varies considerably. This study is to determine the percentage of women experiencing ten steps to successful breastfeeding in tertiary care centres and to assess the practice of breastfeeding at 6 and 10 weeks. This hospital based Prospective descriptive study was conducted among 170 mothers delivering a term baby at tertiary care centre. A validated questionnaire was used to assess the practice of ten steps to successful breastfeeding in the hospital at the time of discharge and status of breastfeeding was assessed at 6 weeks and 14 weeks among these mothers. The results described in a simple descriptive manner comparing with previous studies. In this study majority of mothers (73.5%) had seen written breastfeeding policy, 45.9% received antenatal counselling, 35.9% started breastfeeding within 30 min, 58.8% by 2 hours, 75.9% by 4 hours. One of main reason for delay in initiation of breastfeeding being cesarean section 70.6% were given training regarding how to breastfeed, majority among these being primigravida. The rate of exclusive breastfeeding was 60% during hospital stay. 78.8% mothers were taught when to feed baby or to feed the baby if baby slept too long. Follow up study at 6 weeks and 14 weeks showed 94.8% and 79% of the mothers respectively following exclusive breastfeeding. The rate of exclusive breastfeeding is greatly influenced by the counseling and guidance mother receives antenatally as well as postnatally. It was particularly more if mother has experienced the ten steps of successful breastfeeding by WHO/UNICEF in a baby friendly hospital.

**Keywords:** Knowledge, practices, breastfeeding, mothers, baby, friendly, breastfeeding, hospital, Hrishikesh, Varghese, Rojo.

**INTRODUCTION**

In 1991, Baby friendly hospital initiative (BFHI) was jointly launched by world health organization (WHO) and United Nations Children Fund (UNICEF). It emphasized the role of obstetrical services in promoting, protecting and supporting breastfeeding [14]. The aim of baby friendly hospital initiative is to give every baby the best start in life by providing an environment where breastfeeding is the norm [15]. This initiative uses 10 steps to successful breastfeeding as the standard. These 10 steps are used to evaluate hospital practices and hospitals that incorporate 10 steps are designated as baby friendly hospitals. Exclusive breastfeeding means giving nothing orally than colostrum and breast milk. Medicines and vitamins are allowed [20, 16]. Human milk is decidedly superior to other milks. It is remarkably adapted to the requirements of the infant and provides the best start in life. Exclusive breastfeeding deserves encouragement at least for first 6 months and preferably for up to 2 years. Mother’s milk contains protective Immunoglobulin like Secretory IgA, macrophages, Lactoferrin, lysozyme, bifidus factor, complement, Interferon Peroxidases. It also contains growth factors like epidermal growth factor, enzymes like lipases, amylases spermine, spermatidine and putrescine. Ten steps to successful breastfeeding (WHO/UNICEF 1992: Protecting, Promoting and Supporting Breastfeeding) 1. There must be written breastfeeding Policy. 2. All health care staff must be trained to implement this policy. 3. All pregnant women must be informed about the benefits of breastfeeding. 4. Mothers should be helped to initiate breastfeeding within half an hour of birth. 5. Mothers are shown the best way to breastfeed. 6. Unless medically indicated, newborn should be given no food or drink other than Breast milk. 7. To practice ‘rooming-in’ by allowing mothers and babies to remain together 24
hours a day. To encourage demand breastfeeding. 9. No artificial feeds to babies should be given. 10. Breastfeeding support groups are established and mothers are referred to them on discharge.

From the previous studies shows that women who delivered at an accredited baby friendly hospital had a higher rate of any breastfeeding, a higher rate of any exclusive breastfeeding [2]; DiGirolamo [3]; Kramer et al. [4]; Philipp et al. [5]; Saadeh and Akre. [6]. There is considerable variations in hospital level implementation of the 10 steps of Baby friendly hospital [7]; Kersting and Dulan [8]; Kovach [9] Levitt et al. [10]. Moderate level of implementation was positively associated with early breastfeeding but not for long term breastfeeding [8]. Higher level of implementation was associated with full breastfeeding at 4 and 6 months [11]. Only 37.6% had breastfeeding within 2 hours, 40% had exclusive breastfeeding, 89.7% practised rooming in, 47.3% knew regarding feeding on demand, 100% received training and education regarding breastfeeding. Only 33.9% mothers knew regarding exclusive breastfeeding for 6 months. The knowledge regarding technique of proper holding ranged from 35% to 78.2% for burping. Regarding practice of breastfeeding 37.6% within 2 hours, 29.1% within 2-4 hours, 33.3% after 4 hours. Reason for late initiation of breastfeeding were Cesarean section in 48.5%, colostrum is not good in 18.4%, inadequate lactation in 17.6%. Pain in 53.9%. Baby in nursery for observation in 52.1%, delay in shifting of mother to ward in 14.5%, local customs in 21.2% [13]. A study in Taiwan 76.5% had seen a written breastfeeding policy, 94.3% felt healthcare staffs were supportive and had enough knowledge regarding breastfeeding, 80.4% were informed regarding benefits of breastfeeding during pregnancy, 29% were able to initiate breastfeeding within 30 min, 81% were thought how to breastfeed and maintain lactation, 35.2% were exclusively breastfed, only 14.9% practised rooming-in, 58.8% encouraged breastfeeding on demand, no artificial teats or pacifiers 48.6%, referred mothers to breastfeeding support groups 41.6%. Prevalence of exclusive breastfeeding in hospital was 17.9% during hospital stay and at 1 month and 3 months were 22.3% and 16.7% respectively. A set of validated questionnaires were used, which was used to assess the number of Baby friendly practises experienced by mothers corresponding to ten steps of Baby friendly hospital initiative [1]. Lacunae in literature have been lack of corresponding studies in Indian scenario which assessed the practise of breastfeeding following ten steps of Baby friendly hospital Initiative.

The aim of this study was to determine the percentage of women experiencing the 10 steps to successful breastfeeding in accordance with baby friendly hospital initiatives in a tertiary care centre in India and to assess the practice of Breastfeeding among these mothers at 6 weeks and 14 weeks of age.

**MATERIAL AND METHODS**

A Prospective, descriptive study of all consenting mothers who has delivered at term gestation or after at Tertiary Care centre in Kochi, India who gave birth to infants without Congenital anomalies. sample size has been calculated taking prevalence is taken as 20%, with confidence of 95% and error of estimate of 6%. This one year study included assessment of 170 mothers and their follow up at 6 weeks and 14 weeks. Simple random sampling. Independent sample t-test and analysis of variance (ANOVA) for comparison. A validated questionnaire to mothers about knowledge and Implementation of essential criteria of baby friendly hospital initiative (BFHI) [1]. Questionnaire administered at the time of discharge. Practice of breastfeeding of these mothers assessed at 6 weeks and at 14 weeks during follow up for vaccination. Each questionnaire corresponded to one Baby friendly step. Results of primary questionnaire were compared to the results in the previous similar study and results noted in a descriptive manner.

**RESULTS**

Out of 170 mothers 70 (41.2%) mothers were aged up to 25 yrs, 63 mothers (37.1%) were between 26 and 30 yrs and 37 mothers (21.8%) were more than 30 yrs. 78 (45.9%) were Primi gravida, 68 (40%) were 2nd gravida, 64 (37.6%) were 3rd or more gravida. In the babies 130 (76.5%) were above 2.5 kg and 40 (23.5%) babies were between 1.5 - 2.5 kg. Out of 170 mothers of study group 73.5% have reported to have seen a written breast feeding policy during their visits to hospital and could understand the same. 92.9% mothers felt healthcare staffs were helpful and supportive to breastfeeding. 45.9% were given counselling regarding benefits of breastfeeding during pregnancy. Out of 170 mothers in the study group only 61 (35.9%) were started on breastfeeding within 30 minutes. Rests of the mothers were started on breast milk after 30 minutes. 8.2% mothers within 1 hour, 14.7% mothers in 2 hours, 17.1% mothers in 4 hours, 11.2% mothers in 12 hours, 10.6% mothers by 24 hours and only 2.3% after 24 hours. 70.6% mothers were taught the technique of breastfeeding and how to maintain lactation. Out of 170 mothers of this study 102 (60%) were able to exclusively breastfeed their babies while 67 (39.4%) required formula feeds. Only 1 mother reported to have given plain water during hospital stay. Out of total of 67 babies requiring formula feed, 62 babies were born of Cesarean section and 5 were born of vaginal delivery. 97% of mothers were able to keep their babies along side with them except for medications. Only 5 mothers could not practice rooming-in due to maternal indications. 134 (78.8%) were taught how to breastfeed and encouraged breastfeeding on demand. All mothers were strictly advised against use of pacifiers or artificial teats. Uses of bottles, artificial teats were strictly prohibited in wards. All mothers on discharge were
referred to and advised for followup to well baby clinic. Doctors and nurses constituted the breastfeeding support groups giving advice and support regarding breastfeeding and other issues. Out of 170 mothers only 10% experienced all the ten steps of successful breastfeeding. 17% mothers experienced 9 steps, 31% mothers experienced 8 steps, 21% experienced 7 steps, 12% 6 steps, 5% experienced 5 steps. Out of 170 mothers of the study group status of only 135 mothers is known at 6 weeks. 128 were on exclusive breastfeeding. 6 mothers started on partial feeds. 1 mother was not on breastfeeding. The rest 35 (20.6%) mothers were lost to follow up. Out of 170 mothers status of only 111 is known. Mothers who had partial breastfeeding or not on breastfeeding at 6 weeks were excluded. 88 (79%) were on exclusive breastfeeding. 23 (21%) were on partial feeds. Comparison of 10-step Practice with breastfeeding at 6 Weeks shows that the 10-step practice is significantly higher in exclusive breastfeeding (7.75± 1.435) compared to partial (4.83± 2.401) with p value <0.05. At 10 weeks 10-step practice is significantly higher in exclusive breastfeeding (8.13± 1.166) compared to partial (6.47± 1.95) with a p value <0.05.

**Discussion**

Out of 170 mothers in this study group 41.2% were in the age group up to 25 years. 37.1% mothers were in the age group of 26 to 30 years and 21.8% mothers were over 30 years of age. Nearly 45.9% were primi gravida, 40% were second gravida, and mothers with higher parity were less in number. Practice of ten steps of successful breastfeeding were particularly more in the age group up to 25 particularly more in primi gravida mothers with first baby who were more receptive and anxious regarding handling and feeding of baby. About 54.7% were normal vaginal delivery and 45.3% were delivered by cesarean section. Majority of mothers (75.5%) in this study group told that they have seen the written breastfeeding policy and they could understand the same. It was similar to study by Chien L[1], where around 76.5% mothers reported to have observed this step while it was only 54.4% in Levitt C[10]. Most of these mothers said they have read the steps of successful breastfeeding during antenatal visits and Some of the mothers were explained during regular antenatal counselling sessions conducted at periodic intervals in the hospital. Almost all the mothers (92.9%) reported that healthcare professionals were supportive in establishing breastfeeding. It was similar to the study by Chien L[1], where it was 94.3%. Out of 170 mothers in the study group only 35.9% mothers were able to start breastfeeding within 30 minutes. It was higher than study by Chien L[1] where it was 29.0% and similar to study by Gadhavi R, Vidhani M [12] where initiation of breastfeeding within half hour was 41.4%. About 44.1% mother were started on breastfeeding by 1 hour compared to 24.5% in NFHS-3[33] and 58.8% by 2 hours. It was higher than the study in Rajasthan [13] where 37% mothers initiated within 2 hours. Majority (75.9%) were able to start breastfeeding by 4 hours of delivery. Very few mothers (2.3%) were not able to start breastfeeding even after 24 hours. It was observed that majority of mothers delivered by cesarean section 62 (36.4%) were not able to start within 30 minutes since mother was not available due to procedure. Non availability of mother was also the reason for requiring formula feed initially to prevent hypoglycemia. Other reasons for not starting breastfeeding within 30 minutes in term babies delivering by normal vaginal delivery or cesarean section was due to neonatal conditions like respiratory distress requiring IV fluids and oxygen. Babies requiring prolonged NICU stay due to medical conditions also could not be started on breastfeeding within 24 hours. Method of delivery has a significant impact on early initiation of breastfeeding. Most of the mothers (70.6%) were taught regarding technique of breastfeeding and how to express milk. Among those who were not taught majority were multi gravida mothers who reportedly knew the technique from previous experience in feeding baby, 60% exclusively breastfed their babies during hospital stay. The rate of exclusive breastfeeding was higher compared to other studies. 39.4% required formula feed during hospital stay. Babies who required formula feeds 62 (36.4%) babies were born of cesarean section. Main reason was due to non-availability of mother to prevent hypoglycemia. Other cause was due to inadequate breast milk on day 1 in both normal delivery and cesarean section. Inadequate breast milk was the main reason in babies requiring formula feed in babies born of normal vaginal delivery. All these babies were started on exclusive breastfeeding apart from multivitamin supplementation after the initial period. Almost all babies 97% were kept with mother (rooming-in) during hospital stay. Most of the mothers 78.8% were taught when to feed baby or to feed the baby if baby slept too long. All mothers were advised against artificial pacifier or teats. Bottle feeding was strictly prohibited in the hospital and mothers were counseled regarding the same. In other studies it was 48.6% Chien L[1]. All the mothers were referred to well-baby clinic at the time discharge where doctors and healthcare staff constituted the breastfeeding support group, promoting exclusive breastfeeding advising mothers on Immunisation. All mothers were explained the danger signs and were advised to bring baby any time if mother not confident. Nearly 10% of mothers all the steps of successful breastfeeding compared to only 1% in Chien L[1], 4.6% in Levitt C, Hanvey L[10], nearly 68% experienced 7-9 steps of successful breastfeeding compared to only 10% Kersting M.*, Dulon M[8], which indicated good implementation of Baby friendly hospital Initiative compared to previous study. Follow up study conducted for knowing the status of breastfeeding both exclusive and partial at 6 weeks and 14 weeks during their immunisation visit and to know the reason for discontinuation of exclusive breastfeeding. Status of only 135 mothers were known at 6 weeks of gestation due to loss to followup. 94.8% were on exclusive breastfeeding.
breastfeeding compared to 22.3% in Chien L [1] while 4.4% mothers started formula feeds compared to 48.3% in Chien L[1]. Main reason for partial breastfeeding was inadequacy of milk as felt by mother. These babies were started on formula feeds along with breast milk. Follow up study at 14 weeks for status of breastfeeding it was observed that out of 170 mothers of the initial study group only 111 mothers came for follow up. Rest of mothers were lost to follow up or status is not known. Out these 88(79%) mothers were on exclusive breastfeeding compared to 16.7% in Chien L [1]. The number of mothers on partial feeds increased to 23(21%). Majority of mothers reported that initiation of formula feeding along with breastfeeding due to working hours and others started formula feeds due to feeling of inadequate breast milk for baby.

CONCLUSION
The rate of is exclusive breastfeeding is greatly influenced by the counseling and guidance mother receives antenatally as well as post natally. It was particularly more if mother has experienced the ten steps of successful breastfeeding by WHO/UNICEF in a baby friendly hospital.

The rate of practice of different steps of baby friendly hospital varies with region and also among hospital accredited with baby friendly status. In this study data shows comparatively higher level of practice of ten steps of breast feeding compared to previous studies and also high rate of exclusive breastfeeding which is essential for babies on follow up at 6 weeks and 14 weeks.

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