# Current Breast Feeding Practices among the Mothers of Infants - A Cross Sectional Study

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***Research Article***

***Abstract:*** **Introduction:** WHO advocates for Breastfeeding (BF) as the best source of food for optimal infant growth and development and recommends that Infants should be exclusively Breastfed for 6 months. **Material and Method:** A Cross-sectional study conducted at the UHC of Govt. Medical College, Miraj. Mothers of 250 Infants attending UHC, for routine immunization were interviewed about the BF patterns practiced by them and information was recorded in a pre-structured, semi-open questionnaire. **Results:** Out of 250, 248 (99.2%) infants were breast fed while only 2 (0.8%) were not breast fed. 144 (58%) infants had received pre-lacteal feeds. 72 (48.3%) infants after normal delivery were breast fed within 1 hour while 86 (86.9%) infants after LSCS were Breast fed >1hours after birth. Out of 154 (<6 months age), 49.3% were exclusively BF, till the current age of the infant, 42.4% predominantly and 7.8% partially BF. Out of 248, 94 were ≥ 6 months age and among them 47.9% were exclusively BF, 12.7% predominantly BF and 39.3% partially BF. **Conclusion**: The study results show gap between current practices and WHO recommendations and constitute basis for designing interventions to bridge these gaps.

***Key-words*****:** Breastfeeding (BF), Exclusive BF, predominant BF, partial BF.

## Introduction

The WHO advocates for breastfeeding as the best source of food for optimal Infant growth & development. Epidemiological research provides compelling evidence for the effect of human milk in decreasing the risk of infant mortality & morbidity from acute & chronic disease. In the early 1970's, a declining trend in the prevalence of breastfeeding was documented in almost every country of the world. [(1,2)]

In 2001, WHO suggested that all mothers should Breast feed their children exclusively for the first 6 months & thereafter continue to breast feed for as long as the mother & child wish, & an appropriate & sufficient weaning food should be added after 6 months of life. [(3)]

Initiation of breastfeeding after birth is considerably delayed in India, & in most cases, the valuable colostrum is considered harmful to child's health & discarded before putting the child to breast. Early breastfeeding in all babies, irrespective of the mode of delivery & avoidance of pre-lacteal & pro-lacteal feeds are essential to establish successful breastfeeding. Though the advantages of breastfeeding are significant, its pattern varies a great deal in India & recent studies have shown a declining trend in breastfeeding especially in the urban areas. Looking to the importance of Infant feeding practices the present study was conducted with the objective to study pattern of these practices among the infants attending UHC, of GMC, Miraj.

## Materials and Method

The study was conducted amongst the infants attending the UHC of GMC, Miraj for immunization. According to NFHS-III report, the prevalence of breastfeeding in India is 95%.[(10)] Sample size estimation was done using the formula for qualitative data and prevalence rate of breastfeeding (95%) and allowable error of 5%. According to this a very small sample size was required for the study, so, we covered a sample size of 250. Mothers of these 250 Infants, attending the UHC for a period of 2 months (Sep-Oct'11) were interviewed using a predesigned, pre-structured semi-open questionnaire. This included details regarding the time of initiation of breastfeeding, reasons for delay in initiation, discarding of colostrum & use of pre-lacteal feeds, exclusive, predominant or partial breastfeeding & time of introducing weaning food. Data was compiled, tabulated & analyzed by calculating percentages & applying Chi square test.

The following definitions were applied, consistent with WHO definitions:

Exclusive breastfeeding (EBF) is: "The infant has received only breast milk from his/her mother or a wet nurse, or expressed breast milk and no other liquids or solids, with the exception of drops or syrups consisting of vitamins, mineral supplements, or medicines." An infant is considered exclusively breastfed if fed his or her own mother's expressed milk or milk from a wet nurse or a milk bank. [(5,6)]

Predominant breastfeeding is: "The infant's predominant source of nourishment has been breast milk. However the infant may also have received water or water-based drinks (sweetened or flavored water, teas, infusions, etc.); fruit juice; oral rehydration salts (ORS); drop and syrup forms of vitamins, minerals, and medicines; and folk fluids (in limited quantities). With the exception of fruit juice and sugar-water, no food-based fluid is allowed under this definition." [5,6]

Partial breastfeeding is: "Giving a baby some breastfeeds, and some artificial feeds, either milk or cereal, or other food." [5,6]

The WHO breastfeeding categories do not distinguish between feeding at the breast and feeding expressed milk, and their partial breastfeeding category does not quantify the proportion of an infant's diet provided by breast milk.

## Results

Table 1. Shows that only 2 (0.8%) infants out of 250 not being breast fed. 1 due to non-lactation in mother & other due to mothers decision of not breastfeeding as she was HIV positive & on Anti Retroviral drug therapy. 144 (58%) out of 248 breast fed infants had received pre-lacteal feeds (out of 154 breast fed infants in < 6 months age, 89 i.e. 57.7% & out of 94 breast fed infants in ≥ 6months age, 55 i.e. 58.5% had received pre-lacteal feeds). In this study, the reasons for giving pre-lacteal feeds were the belief that they help to remove meconium from gut followed by family customs & elderly advice. Jaggery water (37%) was being used maximum number of times followed by sugar water (29%), honey (15%), water (12%) & other milk preparations (formula / animal milk / dudhghutti).(Figure 1) Out of 248 breast fed infants colostrum was discarded by 142 (57.25%). (Figure 2) 35% infants were not given colostrum due to family customs or traditions, 27% were deprived of it due to their parents wrong belief that colostrum is infectious.

In this study (Table 2) 34.3% infants were breast fed within 1 hour of birth. 72 (48.3%) infants after normal delivery were breast fed within 1 hour while 86 (86.9%) infants after LSCS were Breast fed >1hours after birth. Highly significant association was found between time of initiation of breastfeeding & type of delivery at p value ≤ 0.001. Figure 3 shows that 33% of mothers delayed initiation of BF after Caesarian section followed by non-lactation (21.5%), family customs (18%), Baby in NICU (13%), maternal illness (11.5%) & not advised by doctor/ nurse advice (3%). Out of 250, 155 were < 6months age & 95 were ≥ 6 months age. Table 3 shows that out of 155 (< 6months age), 1 (0.64%) was not breast fed, from the remaining 154, 89 (57.7%) were given prelacteal feeds, 65 (42.2%) were EBF(exclusively breast fed) till current age, 66 (42.4%) were Predominantly breast fed & remaining 12 (7.8%) were partially breast fed. (Table 4) Out of 95 (≥ 6 months age ), 1 (1.05%) was not breast fed. From remaining 94, 55 (58.5%) were given prelacteal feeds, 26 (27.7%) were EBF (no prelacteal feeds given), 20.2% were EBF with prelacteal feeds given & rest 52.1% were partially breast fed. Introduction of early supplementary foods for the present study was classified as any time between 1 & 6 months. In < 6 months age (154), 13 had already introduced the weaning food while among ≥ 6 months age infants (94), weaning was started before 6 months age in 19 infants, at 6 months in 38 infants & at ≥ 7 months in 37 infants. So, only 13% had starting weaning at before 6 months.(Table 5)

**Table 1:** Breastfeeding practice among infants (0-12 months)

| Breast feeding | Infants | |
|---|---|---|
| | **No.** | **%** |
| Yes | **248** | **99.2** |
| No | **2** | **0.8** |
| Total | **250** | **100** |
| Reasons for not breast feeding | **1) Non lactation** | |
| | **2) Mother on anti-retroviral drugs(HIV +)** | |

**Table 2:** Comparison between type of delivery & time of initiation of Breastfeeding

| **Type of delivery** | **Time of initiation of breast feeding** | | **Total** |
|---|---|---|---|
| | **≤ 1hour** | **>1 hour** | |
| **Normal delivery** | 72 (48.3) | 77 (51.7) | 149 (60) |
| **Caesarian section** | 13 (13.1) | 86 (86.9) | 99 (40) |
| **Total** | 85 (34.3) | 163 (65.7) | 248 (100) |

(Numbers in parentheses represent percentages)

**Table 3:** Breastfeeding patterns among < 6 months old infants.(155)

| Patterns of breastfeeding in < 6 months old | No. | (%) |
|---|---|---|
| Not Breast fed due to non lactation | **1** | **(0.64)** |
| Prelacteal feeds | **89** | **(57.7)*** |
| EBF till current age without prelacteal feeds | **65** | **(42.2)*** |
| EBF till current age with prelacteal feeds | **11** | **(7.14) *** |
| Predominantly Breast fed | **66** | **(42.4)*** |
| Partially Breast fed | **12** | **(7.8)*** |

*1 infant (<6mths age) of non lactating mother not counted while calculating other feeding patterns

**Table 4:** Breastfeeding patterns among ≥ 6 months old infants.(95)

| Patterns of breastfeeding in ≥ 6 months old | No. | % |
|---|---|---|
| Not Breast fed due to non lactation | 1 | (1.05) |
| Prelacteal feeds | 55 | (58.5)* |
| EBF(no prelacteal feeds given) | 26 | (27.7)* |
| EBF with prelacteal feeds given | 19 | (20.2)* |
| Predominantly Breast fed | 12 | (12.7)* |
| Partially Breast fed | 37 | (39.3)* |

*1 infant( ≥6mths age) of non lactating mother not counted while calculating other feeding patterns.

**Table 5:** Age of introducing weaning food in infants

| Age at weaning ( in months) | No. | % |
|---|---|---|
| < 6 | 32 | 13 |
| At 6 | 38 | 40.4 |
| > 6 | 37 | 39.4 |

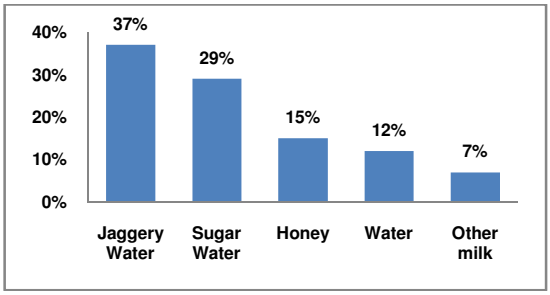


***Figure 1:*** *Constituents of Prelacteal feeds*

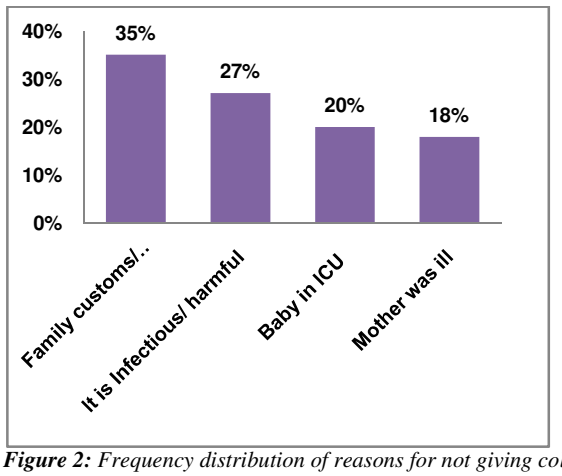


***Figure 2:*** *Frequency distribution of reasons for not giving colostrums*

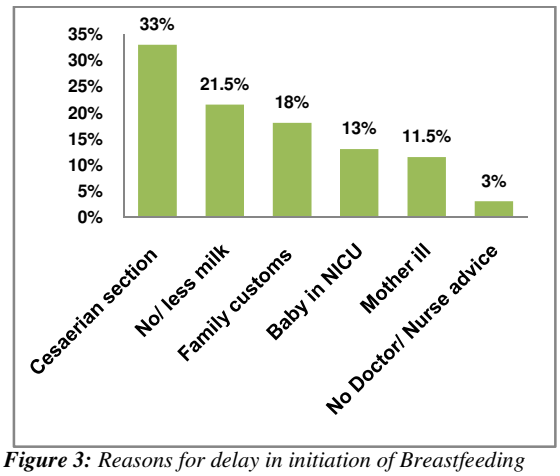


***Figure 3:*** *Reasons for delay in initiation of Breastfeeding*

## Discussion

In the present study 99% of infants were breast fed during first year of their life which was higher as compared to other studies. [1,6]

According to IYCF (2006) guidelines GOI recommends that initiation of breastfeeding should begin immediately after birth preferably within 1 hour. [13] In this study 34.3% of infants were breast fed within 1 hr of birth which is comparable to the study by Devang Rawal in which 38.1 % infants were breast fed within 1 hr of birth [7] & study of Gupta et.al. where 36.6% initiated breastfeeding within 1 hour.(8) In another study by Kumar D (2006) 6.3 % were breast feed within 1 hr & 32.6 % within 24 hrs. [9] In study by Mridula Bandhopadhyay only 16.5 % initiated breast feeding within 1 hr of birth. [4] Data in NFHS –III report, breastfeeding initiated within 1 hr in 30.3 % in urban region of India. [10] Common reasons for late initiation of breastfeeding observed were Caesarian section (33%) & non lactation or no milk (21.5%). In study by Devang Rawal reasons for late initiation were family restriction (36.5%) & Caesarian section (23.1%) [7], where in study of Kumar D, reasons for were family restriction (38.8%) & Social customs (25.2%). [9] This study also revealed that, colostrum was discarded by 57.2 % which is similar to the study of Gupta et.al., in which 56.5% discarded colostrum. [8] Varying figures regarding rejection of colostrum were reported by different studies like 63.1% in Devang Rawal (2009) study, 15.9 %in Kumar D et.al. study & 3.6% in Chatterjee et.al. (2008) study. [11] Common reasons for not giving colostrum in this study were family customs

or elderly advice (35%) & "it is infectious" in 27%. In a study by Bhardwaj et. al. (1991) common reasons for discarding colostrum was religious belief (63.6%), "it is thick" (12.8%) & unclean (11.8%). [12] Pre-lacteal feeds were given to 58% infants in this study with jaggery water (37%) & sugar water (29%) being commonly used. According to NFHS-3 report, 57 % newborn in India while 32% in Maharashtra received pre-lacteal feeds & milk other than breast milk (56%) & honey (24%) given commonly similar results were found in study by Chatterjee et.al. (2008) which showed that 54.5% of newborn receiving prelacteal feeds & in Kumar et.al. study 40 % infants were given pre-lacteal feeds while in study by Pragti Chhabra et.al. 76.9% had received pre-lacteal feeds. [1] In less than 6 month old infants prevalence rate of EBF till current age was 42.2%, while 42.4% were predominantly breast fed. In NFHS-3 report, 46.3% at < 6 month age were EBF. In ≥ 6 months old infants, 20.2% were EBF while 12.7 % were predominantly breast fed & 39.3% partially breast fed. Most of the mothers (40.4%) started weaning foods at the age of 6 months while 39.4% started at ≥ 7 months.

## Conclusion

In our study 99% infants were breast fed, nearly half of the mothers discarded colostrums & gave prelacteal feeds. EBF was practiced only in 36.7% infants. In majority of cases, correct breastfeeding practices were lacking among mothers & so there is a need for breastfeeding intervention programs for the mothers especially during antenatal and postnatal checkups & during immunization targeting towards early initiation of breast feeding and colostrum administration with special emphasis on importance of EBF. Also there is need to promote optimal breastfeeding practices by educating mothers & the elderly women who seem to affect the breastfeeding patterns.

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