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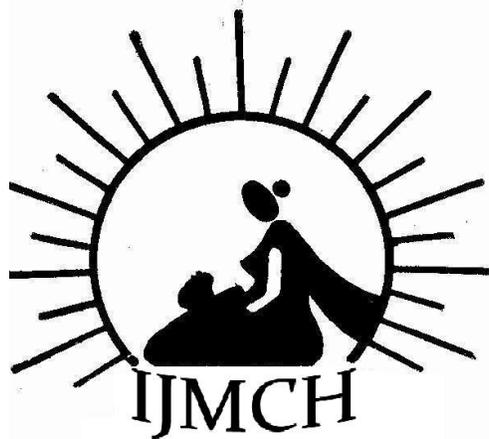
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What are the real and perceived problems in early initiation of breastfeeding in this region?

## Real and Perceived Problems in Timely Initiation of Breastfeeding in a Baby Friendly Hospital

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### ABSTRACT

**Research Question:** What are the real and perceived problems in early initiation of breastfeeding in this region?

**Setting:** Postnatal ward of a Medical College Hospital in South India

**Study Design:** Descriptive cross sectional

**Participants:** 200 mother infant pairs, healthy, singleton, term neonates and their mothers

**Methodology:** Pre-tested questionnaire, results analyzed using Chi-square and Fisher's Exact test

**Results:** There was a gap between knowledge and practice in timely initiation of breastfeeding. Upper socio-economic class mothers and those with more years of schooling has significantly better knowledge regarding early initiation. Cesarean section (LSCS) delivery was a barrier both in maternal perception and in practice for timely initiation. However, all mothers were exclusively breastfeeding their babies at the time of hospital discharge. Rates of prelacteal feeding was low in this study.

**Key Words:** Breastfeeding, Early Initiation, Knowledge, Practice,

### INTRODUCTION

Breastfeeding is one of the most cost effective interventions for neonatal survival<sup>(1)</sup>. Delayed initiation of breast feeding has been shown to increase neonatal mortality<sup>(2)</sup>. In developing countries, though knowledge of the benefits of breast milk may have increased among mothers, their attitudes are still governed by traditional practices<sup>(3,4)</sup>. In India, breastfeeding is near universal but psychosocial and cultural barriers exist, especially in initiation of breast feeding. This study was done to evaluate the real and perceived problems in initiation of breast feeding, among mothers of newborns delivered in a medical college hospital, where baby friendly hospital initiative (BFHI) has been practiced for almost 2 decades.

## MATERIALS AND METHODS

This descriptive cross sectional study was carried out over two months from May 2012. 200 consecutive mothers who delivered healthy, normal, singleton, term babies in hospital were included. The pretested questionnaire consisted of three parts viz., socio-demographic characteristics, knowledge of breast feeding and practice. Socio-economic status was assessed by Kuppaswami scale (2007). One breastfeed was observed by the principal investigator within 72 hours of birth in all mother-infant pairs.

**Statistical Analysis** The data was entered in EPI7 statistical software and analysed using SPSS for Windows Version 17.0. Mean and Standard deviation were used for normally distributed continuous data. For non-normally distributed continuous data, median and interquartile range were used. The categorical and dichotomous data were expressed using percentages. The tests of significance used were Chi-square test and Fisher's Exact test.

## OBSERVATIONS

A total of 200 mother-infant pairs were recruited during the study period.

### **Sociodemographic characteristics**

The mean age of the mothers was 25.5 yrs (SD: 4.1yrs ). The mean number of years spent for education was 12 yrs (Range: 0 to 21 yrs; Interquartile range: 9yrs, 15 yrs). The proportion of graduates and above was 38.5%. Majority (87.5%) of them were housewives. The proportion of women belonging to Lower/Upper lower SES, Lower middle SES, and Upper middle/Upper SES were 53%, 15%, 32%, respectively (**Table 1**)

### **Obstetric data**

Primigravida were 55%. Booked cases were 41.5%. Delivery was normal vaginal for 67.5%, instrumental for 3.5%, and lower segment cesarean section (LSCS) for 29% of study subjects. Spinal anesthesia was given for 94.8% of LSCS. All 100% of babies were discharged home on exclusive demand breast feeding.

### **Knowledge**

**1. Breastfeeding (Table 1)** : Almost all (199/200) mothers knew the first feed of the baby should be breast milk. Only two-thirds knew that colostrum should be given to baby, breastfeeding initiated within an hour of birth and exclusive breast feeding should be continued for 6 months. Only a dismal 3% knew that suckling increases breast milk production, majority (44.5%) felt it was due to good food. Signs of adequate feeding as good weight gain and frequent urination were mentioned only by 7% and 5% respectively. More than 60% said their knowledge was obtained from television, their mothers, neighbours and newspapers. Nurses contributed to knowledge in only 9.5% of mothers. All mothers said that they perceived no side-effects of breast feeding.

### **2. Initiation of breastfeeding and socio-demographic variables (Table 2)**

Knowledge of early initiation was significantly better among older (>25yrs) and upper socio-economic status mothers. Years of education and working mothers also showed increased knowledge regarding time of initiation but this was not statistically significant. There was association between younger age, less education, lower socio-economic status, being housewives and primigravida mothers and use of prelacteal feeds. There was obvious inverse relationship between responses of use of prelacteal feeds with delay in initiation of breastfeeding.

**Table 1. Knowledge of mothers regarding various aspects of breastfeeding**

S.No	Question	Responses	Frequency	Percent
1.	What can be the first feed to the newborn	Breast milk	199	99.5
		Sugar water	1	0.5
2.	Colostrum should be given to the child	Yes	137	68.5
		No	7	3.5
		Don't Know	56	28
3.	Can Prelacteal feeds (sugar water, honey, cow/s milk) be given at times	Yes	43	21.5
		No	102	51
		Don't Know	55	27.5
4.	Time of first breast feed ( <i>hrs after delivery</i> )	Within 1 hr after delivery	126	63
5.	What increases the secretion of breast milk	Increased intake of nutritious food	89	44.5
		Baby sucking	6	3
		Drinking lots of milk	2	1
		Others( <i>Excessive hormone secretion, health of the mother, drinking lot of water</i> )	22	11
		Don't know	84	42
6.	Side effects of breast feeding	Nil	0	0
7.	Duration of exclusive breastfeeding	< 6 months	55	27.5
		6 months	125	62.5
		>6 months	20	10
8.	Signs that shows baby has been adequately breast fed	Baby stops sucking	78	39
		Baby's stomach big	35	17.5
		Baby sleeps well	29	14.5
		Baby will be burping	17	8.5
		Baby gains weight	14	7
		Baby urinates well	10	5
		Don't know	29	14.5
9.	Source of Knowledge	Doctors	61	30.5
		Respondent's mother	55	27.5
		Television	24	12
		Neighbours	23	11.5
		Magazines	21	10.5
		Nurses	19	9.5
		Others	18	9

**Table 2. Association of socio-demographic factors and knowledge of timely initiation among positive respondees**

S. No	Variables		Time of first breast feed (n=126)	
			1 hr or less	p value
1.	Mother's age	25 yrs or less	59(56.2%)	0.036*
		> 25 yrs	67(70.5%)	
2.	Mother's education	< 15 yrs (Less than a graduate)	74 (58.3%)	0.067
		15 yrs or more (Graduates & above)	52 (71.2%)	
3.	Mother's occupation	Working mothers	19 (76.0%)	0.15
		Housewives	107 (61.1%)	
4.	Socio economic status	Lower/Upper lower SES	57 (53.8%)	0.011*
		Lower middle SES	20 (66.7%)	
		Upper/Upper middle SES	49 (76.6%)	
5.	Parity	Primi	64 (58.2%)	0.119
		Non primi	62 (68.9%)	
6.	Mode of delivery	Normal vaginal	89 (65.9%)	0.295
		Instrumental	3 (42.9%)	
		LSCS	34 (58.6%)	

# not applicable

\*statistically significant at  $p=0.05$  level

\*\*highly statistically significant at  $p=0.01$ .

**Practice of timely initiation (Table 3):** Around 44% of mothers initiated breastfeeding within one hour. However, only 10% said they had used prelacteal feeds before breastmilk feed

**Perceived problems for delay in initiation of breastfeeding (Table 4):** The main responses were related to maternal problems with "not enough milk" and "LSCS" being the majority. A total of 35% mothers (70/200) had one or more problems during observation of breastfeeding. 20.5% (41/200) had one problem, 10.5% (21/200) had two problems and 4% (8/200) had 3 or more problems. The remaining 130 mothers had no problems.

Direct observation of feeds (Table 5) revealed poor positioning and latching leading to poor sucking by baby as the main problems. There was a marked gap between knowledge and actual time of initiation in breast feeding (Fig. 1)

**Table 3. Association of socio demographic and obstetric variables with practice of timely initiation among positive responders (n=126)**

S.No	Variables		Time of first breast feed (n=126) Practice	
			1 hr or less	p value*
1.	Mother's age	25 yrs or less	51 (48.6%)	0.171
		> 25 yrs	37 (38.9%)	
2.	Mother's education	< 15 yrs (Less than a graduate)	56 (44.1%)	1.0
		15 yrs and above (Graduates & above)	32 (43.8%)	
3.	Mother's occupation	Working mothers	13 (52.0%)	0.39
		Housewives	75 (42.9%)	
4.	Socio economic status	Lower/Upper lower SES	75 (42.9%)	0.687
		Lower middle SES	15 (50.0%)	
		Upper/Upper middle SES	29 (45.3%)	
5.	Parity	Primi	49 (44.5%)	0.864
		Non-primi	39 (43.3%)	
6.	Mode of Delivery	Normal Vaginal Delivery	73 (54.1%)	<0.001***
		Instrumental Vaginal Delivery	3 (42.9%)	
		LSCS	12 (20.7%)	

\* Chi-square test was used for mother's age, mother's occupation, socio economic status, and parity; Fisher's Exact test used for mother's education, and mode of delivery.

\*\* Fisher's Exact test used.

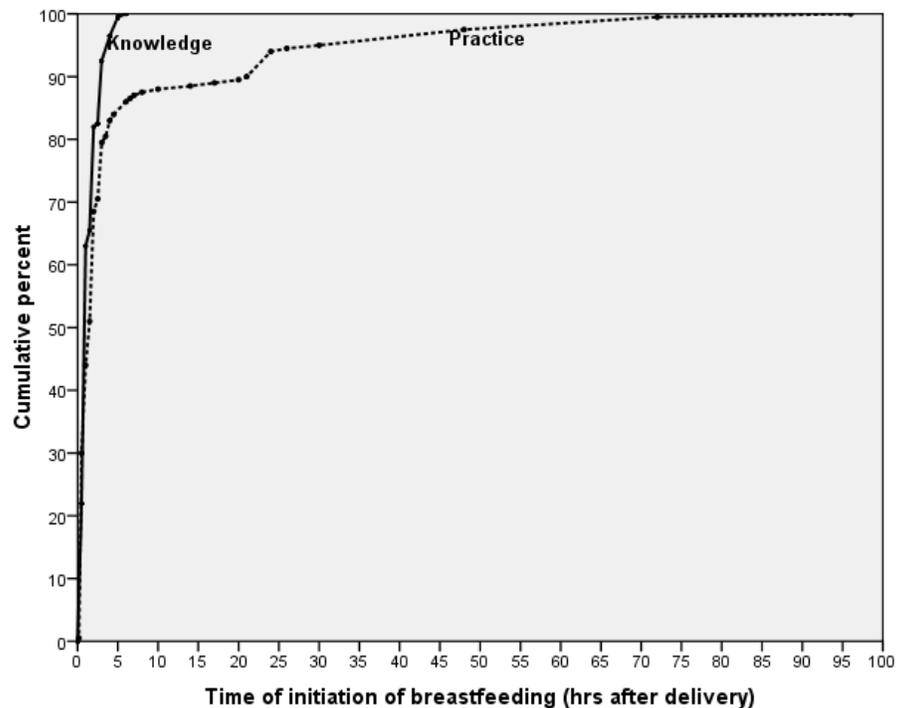
\*\*\* highly statistically significant at  $p=0.01$ .

**Table 4. Reasons for delay in initiation of breastfeeding (n=112, multiple responses)**

Type of reasons	Choices	Present	Absent
<b>Maternal</b>	Feeling weak	19 (17%)	80 (71.4%)
	Not enough milk	33 (29.5%)	70 (62.5%)
	C-section	34 (30.4%)	78 (69.6%)
	Others	40 (35.7%)	72 (64.3%)
<b>Baby</b>	Sleeps after few sucks	8 (7%)	20 (18%)
	Not sucking well	9 (8%)	93 (83%)
	Baby does not know how to breast feed	4 (3.6%)	96 (85.7%)
	Crying after feeding	4 (3.6%)	98 (87.5%)
	Others	31 (27.7%)	81 (72.3%)

**Table 5. Observed problems during breastfeed by PI (No of mothers with problems=70)**

S.No	Problems*	N (%)
1.	Retracted nipples	3 (1.5)
2.	Breast engorgement	1 (0.5)
3.	Poor positioning	22 (11)
4.	Poor latching	38 (19)
5.	Poor sucking	43 (21.5)

**Figure 1: Knowledge and Practice regarding time of initiation of breastfeeding**

## DISCUSSION

Exclusive breastfeeding, preceded by timely initiation (putting baby to breast within one hour of birth) are universally accepted as essential elements for the satisfactory growth and development of infants and has also been endorsed by the Indian Academy of Pediatrics<sup>(5)</sup>. Timely initiation tops the list of life saving interventions for newborns<sup>(2)</sup>. A large community survey from Nepal showed conclusively that universal initiation within 1 h might prevent 19.1% of neonatal deaths<sup>(6)</sup>. In our study knowledge of timely initiation was 63% but in practice it was seen only in 44% of mothers. Prevalence of timely initiation of breast feeding in Nepal was 3.4%<sup>(6)</sup> and others have shown rates of 13.5%<sup>(7)</sup>, 52.4%<sup>(8)</sup> and 54%<sup>(4)</sup>. For a Medical College Hospital our rates of initiation is low as compared to other studies where they found institutional deliveries resulted in higher timely initiation rates. The same authors also found marked differences in timely initiation of breastfeeding between rural

and urban mothers, formal education, occupation and postnatal care<sup>(8)</sup>. Interestingly, Horii et al found that hospital practices and intervention by health workers delayed timely initiation of breastfeeding<sup>(9)</sup>. Pandey et al found an initiation rate likely to be lesser in those who attended antenatal clinics, caesarean delivery, lived in urban areas, over 35 years of age and delivered by trained health professionals<sup>(10)</sup>. In a study from Qatar, rates of initiation was 57% but continued breastfeeding was unacceptably low and dependant on type of delivery and employment status of mothers<sup>(11)</sup>. Our study showed mother's knowledge of early initiation was significantly better among older (>25yrs) and upper socio-economic status mothers. Number of years of education and working mothers also showed increased knowledge regarding time of initiation but this was not statistically significant. Step 4 of the Ten Successful Steps to breastfeeding states that initiation rates should be maintained at 80% in any BFHI hospital. Our institution falls short of this ideal and measures to rectify this have to be taken.

The two main reasons against timely initiation were "not enough milk" and "LSCS". LSCS certainly emerged as one of the greatest barriers to timely initiation in many other studies<sup>(12,13)</sup>. This correlation was significant in practice as well, as has been noted by other workers<sup>(14, 13)</sup>. Prior et al found that once breast feeding was initiated before discharge, however, no difference exists in the rates of exclusive breast feeding till 6 months of age, irrespective of mode of delivery<sup>(13)</sup>. Thus health workers need to be aware of the negative correlation between caesarean delivery and timely initiation of breastfeeding and institute preventive measures.

In our study incidence of prelacteal feeding is 10% (20/200). This is much lower than what has been reported by others<sup>(14)</sup>. Also, exclusive breastfeeding was established in almost all mothers by the time of discharge from our hospital unlike others studies<sup>(4,15)</sup>.

Observation of a breast feed was done in all mother-infant pairs. Two major observations were poor positioning and latching of baby. Studies have shown that these would lead to sore nipples resulting poor sucking by baby and earlier stoppage of breast feeding<sup>(16)</sup>.

## CONCLUSIONS

There was a gap between knowledge of timely initiation and practice. Knowledge of early initiation was significantly better among older (>25yrs) and upper socio-economic status mothers. LSCS delivery was associated with significantly low levels of timely initiation. Exclusive breast feeding was universal at discharge from hospital. About 2/3rds of mothers knew use of colostrum, duration of breastfeeding, prelacteal feeds but knowledge on signs of adequate breast feeding, was woefully lacking. Only 10% of mothers obtained their breastfeeding knowledge from nursing staff.

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