

# Pre-lacteal feeding practices among newborn in urban slums of Lucknow city UP, India

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## ABSTRACT

**Aim:** To study the Practices of Pre-lacteal feeding among Newborns in Urban slums of Lucknow city. **Setting and Design:** A cross-sectional study in Urban slums of Lucknow city, UP. **Methods and Material:** A cross-sectional study in Urban slums of Lucknow city, UP included 524 women who had a live birth during last one year preceding data collection. A pre-designed and pre-tested questionnaire was used for data collection. **Statistical analysis used:** The data was tabulated on Microsoft Excel sheet and analyzed using the software SPSS 10.0 for Windows and Discrete data were analyzed using the chi-square test. **Results:** Study findings showed that Half (50.6%) of the mothers had given pre-lacteal feedings to their newborn. Out of those who had given pre-lacteal feed, 55.1 percent had given mugli ghutti/griipe water and 49.4 percent had given boiled water as pre-lacteal feed Only mother's education ( $p < 0.01$ ), father's education ( $p < 0.001$ ) and socioeconomic status ( $p < 0.05$ ) were statistically associated with the practice of giving pre-lacteal feeding. **Conclusion:** It was concluded that maternal knowledge and awareness of correct feeding practices is essential for the normal growth, health and well being of the children. We therefore suggested that the primary focus of various nutrition related national programs in India for children should aim at imparting nutrition and health education to the mothers.

**Keywords:** Newborn; Pre-lacteal Feeding; Urban Slums

## 1. INTRODUCTION

Exclusive breastfeeding (EBF) is recommended as the

optimum method of feeding for the first 6 months of life and semi-solid foods are to be introduced after 6 months while continuing breastfeeding to meet the physiological requirements of the infants [1].

Other studies from urban slums repeatedly documented that exclusive breastfeeding was practiced in only 30% - 40% of infants, colostrum was discarded in up to 90%, use of pre-lacteal feeds was almost universal, use of feeding bottles, animal milk, and commercial milk formulae was very common [2].

World Health Organization (WHO) and United Nations Children's Fund (UNICEF) recommend that all mothers should breastfeed their children exclusively for the first 6 months and thereafter they should continue to breastfeed for as long as the mother and child wish, and both appropriate and sufficient weaning food should be added after six months of life [3,4]. In order to achieve the millennium Development Goal of reduction of child mortality, infant breastfeeding has been identified as one of the major intervention areas both globally and nationally [5,6].

**Aim:** The study had been conducted to assess the pre-lacteal feeding practices among newborns in an urban slums of Lucknow city and to determine the factors influencing it.

## 2. MATERIAL AND METHODS

### 2.1. Study Population

The present study was carried out among newborns in urban slums of Lucknow city. Lucknow city is a city of Nawabs, with a Population of about 40 lacs. Mixed population of Hindus and Muslims. Approximate Family size is about 5.6. reason for selecting for study is that I was studying in Lucknow and it was easy to carry out study in this area and also to aware the Mothers regarding Feeding Practices of New Borns.

The actual accessible population from which the sample was taken, was defined as "All those households hav-

ing mothers who gave birth to a live born within the last one year”.

## 2.2. Study Design Cross-Sectional Study

### 2.2.1. Sampling

Sample size was calculated on the basis of percent distribution of children who were fed colostrum. According to NFHS, UP (1998-1999) percentage of children who were fed colostrums was 25 percent. An absolute permissible error of 4 percent was taken to calculate the sample size. Considering a 10 percent of non response, the sample size came out to be 517, however in the present study 524 children were covered.

### 2.2.2. Sampling Technique

There are eight Maternal and Child Health Centre (Bal Mahila Chikitsalaya) in Lucknow city. For sampling purpose at first stage, one maternity centre was selected randomly which was Aliganj, Maternal and Child Health Centre. This centre covers a total of 33 slums covering a population of about 40,000. Considering an average family size of 5.6 for the slums of Lucknow, there would be about 7142 households and 1100 children below one year of age. In order to cover desired sample size of 524 systematic random sampling was used and. Every second household was surveyed.

### 2.2.3. Analysis and Interpretation of Data

Pretested and predesigned questionnaire was used. Interview was taken from Mothers regarding pre lacteal feeding practices of Newborns.

The data was tabulated on Microsoft Excel sheet and analyzed using the software SPSS 10.0 for Windows. Discrete data was analyzed using Chi-square test. Binomial analysis was performed with prelacteal feeding practices as dependent variable and socio-demographic characteristics as independent variable.

## 3. RESULTS

A total of 524 families were surveyed. There were 29.4 percent Muslims and 70.6 percent Hindus families. Amongst Hindus 33.6 percent belonged to OBC, 26.3 percent belonged to SC/ST and 10.7 percent belonged to general caste. The majority (70%) of the families were nuclear type. More than half (59.5%) of the mothers were illiterate. About one fifth (21.2%) of the mothers had education level up to junior/high school level. More than one third (45.8%) of fathers were illiterate (45.8%) and 27.8 percent had education level up to junior/high school level (**Table 1**).

Half (50.6%) of the mothers had given pre-lacteal feedings to their newborn. Out of those who had given pre-lacteal feed, 55.1 percent had given *mugli ghutti*/

*griipe* water and 49.4 percent had given boiled water as pre-lacteal feed. About one third (34.7%) of them had given cow/buffalo's milk and 22.6 percent had given honey. A meagre percentage of mothers had given tea, powdered milk, pulse water (**Table 2**).

There was no association between religion, caste and birth order with the practice of giving prelacteal feeding as it was not found statistically significant ( $p > 0.05$ ). Only mother's education ( $p < 0.01$ ), father's education ( $p < 0.001$ ) and socioeconomic status ( $p < 0.05$ ) were statistically associated with the practice of giving prelacteal feeding (**Table 3**).

## 4. DISCUSSION

In present study it was found that half (50.6%) of the mothers had given prelacteal feed to their newborn.

In contrast to our study, Singh (2002) in a study in rural

**Table 1.** Socio-demographic characteristics of study population/respondents (N = 524).

Characteristics	No.	Percent		
Religion and caste	Muslim	154 29.4		
	Hindu	370 70.6		
	General	56 10.7		
	OBC	176 33.6		
	SC/ST	138 26.3		
Type of family	Nuclear	367 70.0		
	Joint	157 30.0		
Socio-economic status	I	0 0.0		
	II	40 7.6		
	III	35 6.7		
	IV	66 12.6		
	V	351 67.0		
Family size	<5	195 37.2		
	5 - 6	192 36.6		
	>6	137 26.1		
Education	<b>Mother</b>		<b>Father</b>	
	No.	Percentage	No.	Percent
Illiterate	312	59.5	240	45.8
Up to primary	63	12.0	58	11.1
Junior/high school	111	21.2	146	27.8
Intermediate	20	3.8	29	5.5
Graduate & +	18	3.4	51	9.7

**Table 2.** Practices of pre-lacteal feeding (within one month of birth) (N = 524).

Practice	No.	Percent
Not given	259	49.4
Given	265	50.6
Sugar water	19	7.2
Boiled water	131	49.4
Honey	60	22.6
Mugli ghutti/gripe water	146	55.1
Tea	3	1.2
Powdered milk	18	6.8
Dal water	2	0.8
Cow/Buffalo's milk	92	34.7
Others	-	-

\*Multiple response.

area of Ghaziabad, UP reported that 96.4 percent of mothers gave prelacteal feed to their neonates, which is higher than in present study [7].

Koshore *et al.* (1999) in a study found that out of those who had given prelacteal (50.6%), 55.1 percent of them given Mugli Ghuti and 49.4 percent gave boiled water as prelacteal feed [8].

In contrast to this study Singh *et al.* (2002) in their study found that gur or sugar water as prelacteals by majority (80%) of mothers, only 2.7 percent had given Mugli Ghutti as prelacteal feed [7].

Similarly Kishore *et al.* (1999) in their study in rural area found that 49 percent of mothers gave sugar water as prelacteal feed [8].

Incontrast to our study Kalra *et al.* (1982) had reported the practice of prelacteal feeding in urban areas of Agra to be 85 percent and 95 percent in rural area of Agra which are higher than in this study [9].

Satapaty *et al.* (1984) reported this practice of prelacteal feeding by 73 percent mothers from South Orissa [10,11] and Kumar *et al.* (1989) had reported that 90.9 percent mothers in Delhi had given prelacteal to their newborns, finding of both the study the higher than in the present study [12]. It was concluded that maternal knowledge and awareness of correct feeding practices is essential for the normal growth, health and well being of the children. We therefore suggested that the primary focus of various nutrition related national programs in India for children should aim at imparting nutrition and health education to the mothers.

Importance of Study findings: As the study shows that by educating the parents we can improve feeding practices in Newborns. More awareness is needed to improve

**Table 3.** Association between demographic characteristics and practice of giving pre-lacteal feeding.

Demographic characteristics	No.	Pre-lacteal feed		Test statistics	
		No.	%		
Religion	Hindu	370	193	52.2	$\chi^2 = 1.27$ , df = 1, p > 0.05
	Muslim	154	72	46.8	
Caste	General	56	27	48.2	$\chi^2 = 0.86$ , df = 2, p > 0.05
	OBC	176	96	54.5	
	SC/ST	138	70	50.7	
Type of family	Joint	367	188	51.2	$\chi^2 = 0.21$ , df = 1, p > 0.05
	Nuclear	157	77	49.0	
Education of mother	Illiterate	312	160	51.3	$\chi^2 = 15.15$ , df = 4, p < 0.01*
	Up to primary	63	41	65.1	
	Junior/high school	111	54	48.6	
	Intermediate	20	4	20.0	
	Graduate & +	18	6	33.3	
	Illiterate	240	115	47.9	
Education of father	Up to primary	58	38	65.5	$\chi^2 = 7.73$ , df = 4, p < 0.001*
	Junior/high school	146	77	52.7	
	Intermediate	29	12	41.4	
	Graduate & +	51	23	45.1	
Birth order	1	150	76	50.7	$\chi^2 = 3.83$ , df = 2, p > 0.05
	2 - 3	266	143	53.8	
	4+	108	46	42.6	
SES	II	40	25	62.5	$\chi^2 = 9.92$ , df = 3, p < 0.05*
	III	35	22	62.9	
	IV	66	24	36.4	
	V	383	194	50.6	

\*Significant.

correct feeding practices.

## 5. CONCLUSION

It was concluded that maternal knowledge and awareness of correct feeding practices is essential for the normal growth, health and well being of the children. We therefore suggested that the primary focus of various nutrition related national programs in India for children should aim at imparting nutrition and health education to the mothers. It is recommended that policy makers should look into the issue to give more emphasis in the promotion of EBF through empowerment of women and

other corrective measures to the achievement of the fourth millennium development goal.

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