

## Infant Feeding Practice by the Rural Mothers of Dinajpur District

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This cross sectional type of descriptive study was carried out with a view to find out infant feeding practice by the rural mothers of Dinajpur district. A total of 465 respondents were interviewed purposively. Majority of the respondents were housewives and had primary education. A large proportion of the respondents (61.3%) breast fed their children exclusively allowing chips of water rarely. Most of the mothers (92%) fed colostrums to their babies and a large proportion of them (49.5%) had accurate knowledge about colostrums. A countable number of mothers (21.7%) weaned their child much earlier i.e.; before attaining the age of 4 months. Educational status of the mothers was found inversely related to prelacteal feeding practice, which was statistically significant ( $P < 0.05$ ). This study, though a small one, might help the planner and concerned health authority to take some interventional measures by providing some specific recommendations.

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**Key words:** Infants, Feedings, Rural, Dinajpur, Bangladesh

### Introduction

Infants are the most vulnerable group among all the groups in our society.<sup>1</sup> Infants constitute about 3% of the total population of Bangladesh. About 1 new born comes to the earth per 11 seconds in Bangladesh.<sup>2, 3</sup> Breastfeeding of infants is an essential health and medical decision for both the mother and her baby. Breastfeeding results in significant health gain, obesity reduction and cost saving to society.<sup>4</sup>

Research has repeatedly shown that human milk and breastfeeding of children provide advantages with regard to general health, growth and development, while significantly decreasing the risk of a large number of acute and chronic diseases including diarrhoea, ear infection, asthma, respiratory infections, botulism, urinary tract infections, leukemia, autoimmune thyroid disease and multiple

sclerosis.<sup>3,5</sup> Breastfeeding has been shown to increase school performance and decrease the incidence of childhood and adult obesity.<sup>6</sup> In addition, a number of studies show a possible protective effect of human milk feeding against Sudden Infant Death Syndrome, insulin-dependent diabetes mellitus, Crohn's disease, ulcerative colitis, lymphoma, allergic disease and other chronic digestive diseases.<sup>3,7</sup>

On the other hand regarding infant feeding practice under any circumstances breast milk is the ideal food for the infant. A child who is breastfed has greater chance of survival than a child artificially fed. Prelacteal food may be harmful for the baby. If unhygienic it may create diarrhea and sometimes may be life threatening for the baby. But still some rural mothers are practicing pre-lacteal feeding to their new born without knowing its detrimental

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health effect. It is also very much important for the mothers to know when and how weaning should be started to their babies. Weaning period is the most crucial period in child development. During the weaning process children are particularly exposed to the deleterious synergistic interaction of malnutrition and infection.<sup>2,3</sup>

In addition to the benefits to babies, breastfeeding benefits the mothers as well. It can help some mothers lose weight faster. It can reduce the risk of osteoporosis and some forms of breast and ovarian cancers and can help the uterus return to its normal size quickly. This results in significant reduction in health care costs for society.<sup>2,3,7</sup>

This study was designed to find out the actual scenario regarding infants' breast feeding, pre-lacteal feeding and weaning practiced by the rural mothers, which might help the concern authority in this regard.

**Methods**

This cross-sectional type of descriptive study was carried out in different villages of Birol Upazilla under Dinajpur district in 2009. All married women who had at least one <5 child constituted the study population. Total sample size was 465 and samples were chosen purposively. Data were collected from the respondents according to a pre tested and partially structured questionnaire. After proper editing and checking validity and consistency, data were analysed by using SPSS PC soft wire programme.

**Results**

The mean age of the responding mothers was 20.5 years. About half of the respondents (49.9%) had primary education, 15.3% were illiterate and very negligible portion (0.6%) was graduate. Most of the respondents (86.5%) were house wives and the mean monthly family income was Taka 4652.26 only. Among the infants 53.5% were male and 46.5% were female.

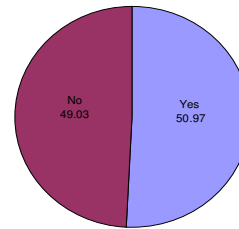


Figure 1. Distribution of the respondents by pre-lacteal feeding to their infants

The above figure showed that about half (50.5%) of the respondents had practiced pre-lacteal feeding to their newborn before starting breast feeding. It was also found that common pre-lacteal foods used by the rural mothers were honey (40%), sugar solution 5.3%, plain water 1.1% and multiple 4.3%.

Table I: Distribution of the respondents by exclusive breast feeding practice

EBF	Respondents No.	%
Yes	285	61.3
No	180	38.7
Total	465	100

Regarding exclusive breast feeding (table-1), it was very much appreciable that 61.3% of the respondents exclusively breast fed their babies ignoring rare chips of water while percentage of mothers who did not breast fed their babies exclusively was only 38.7%.

In response to another question, it was found that those who did not breast fed their babies exclusively 5.6% of them fed cows milk, 1.9% powder milk, 6.7% combination of breast milk and cows milk, 2.2% combination of breast milk and powder milk and 16.1% other combinations.

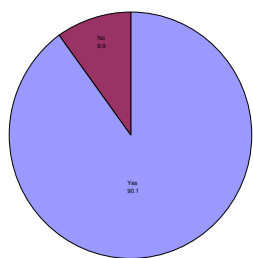


Figure 2. Distribution of the respondents by feeding of colostrums to their babies

Figure 2 showed that 92% of the responding mothers fed colostrums to their babies. Maximum mothers (49.5%) knew that feeding of colostrums was good for their babies, 22.8% of them said that they did it by the advice of their seniors.

Among those who did not feed colostrums to their babies, some thought that it was wizard milk, some thought that it was bad for their babies and a few of them thought that it might cause diarrhoea.

Table II: Distribution of the respondents by duration of breast feeding

Duration of breastfeeding	Respondents No.	%
<6 months	26	5.6
6 – 12 months	51	11.0
1.0 – 1.5 years	96	20.6
1.5 – 2.0 years	70	15.1
>2 years	222	47.7
Total	465	100

$\bar{X} \pm SD = 21.7 \pm 6.8$  months

The mean duration of continuation of breast feeding by the responding mothers was 21.7 months. Majority of the respondents (47.7%) continued breast feeding to their babies for more than 2 years. About 21% of the respondents continued breast feeding for 1 to 1.5 years followed by 15.1%, 11% and 5.6% for 1.5 – 2 years, 6 – 12 months and <6 months respectively.

Table III: Distribution of the respondents by age of child at weaning

Age of child at weaning	Respondents No	%
<4 months	101	21.7
5 months	36	7.7
6 months	151	32.5
7 months	97	20.9
>8 months	80	17.2
Total	465	100

$\bar{X} \pm SD = 6.2 \pm 1.2$  months

This table showed that the mean age of child at weaning was 6.2 months. A large number of responding mothers (32.5%) weaned their child at the standard time i.e.; at 6 months of age followed by 21.7% weaned their child too much earlier i.e.; before attaining the age of 4 months, 20.9% weaned their child a little bit later i.e.; at the age of 7 months and 17.2% weaned their child after the age of 8 months which was much later than the standard time.

It was also found that common weaning foods used by the rural mothers were soft rice, gruel, hotchpotch, sagu / barley, cerelac, boiled egg yolk and multiple as 26.5%, 15.3%, 15.1%, 3.9%, 1.3%, 0.9% and 37.2% respectively.

From this study it was found that educational status of the respondents was inversely related to pre-lacteal feeding, which was statistically significant ( $p < 0.05$ ) and also found that Exclusive breast feeding, duration of breast feeding and standard age of infants at weaning was directly related to educational status of the respondents. But there was no significant relationship of educational status of the respondents with colostrums feeding and age of infants at weaning and that of monthly family income with pre-lacteal feeding, exclusive breast feeding and age of infant at weaning.

## Discussion

In this study it was found that about half of the respondents had pre-lacteal feeding practice for their infants which were not desirable. It might be a cause of hindrance of exclusive breast feeding. Most common pre-lacteal food used by the respondents was honey (40%). After allowing chips of water, the percentage of exclusive breast feeding was high (61.3%) but if we strictly define EBF, then this percentage was very low. About 92% of the respondents fed colostrums to their babies and nearly half of them (49.5%) knew that feeding of colostrums was good for their babies' health. Only 8% did not feed and they had a misconception regarding feeding of colostrums. Only 47.7% of the responding mothers continued breast feeding to their babies for 2 years or more and 32.5% of them weaned their babies at correct time. But it was a matter of attention that 21.7% weaned their babies too much earlier (<4 months), on the other hand about 38% weaned their babies later than the correct time.

More or less similar findings were observed by several other studies.<sup>8,9,10,11</sup> Some authors in their study showed that mean duration of exclusive breast feeding and that of continuation of breast feeding were 4.9 months and 10.5 months, practiced by the mothers having children under 2 years.<sup>8</sup> The authors in another study showed that most common pre-lacteal food was honey (34.9%), 16.3% of the respondents had EBF to their babies but 70.9% had predominant breast feeding allowing some amount of water, 37.2% weaned their child after 5 months of age and common weaning foods were Suji (43.5%), khichuri (36.1%), boiled egg (25.6%) and fruit juice (24.4%).<sup>9</sup> In some studies the authors observed that 7.9% of the rural mothers exclusively breast fed their babies and most common pre-lacteal food used by them was honey (59%).<sup>10,11</sup>

## Conclusion

The most sensitive indicator of health is infant mortality rate as because infants are the most vulnerable group in the society. They are the future generation of the society. If the infants are not brought up healthy both physically and mentally they will remain unhealthy through out their life. So practices regarding infant feeding,

weaning and rearing should be appropriate and in time.

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