

Feeding Pattern and Nutritional Status of Under Two Years Slum Children

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Abstract

Background: Feeding practices play a pivotal role in determining the optimal development of infants. Through this study the information helps to make planning to decrease malnutrition and way of proper feeding in reaching the target of MDG 4. **Objective:** The aim of the present study was to assess feeding pattern and nutritional status of under two years children. **Methodology:** This cross sectional descriptive study was carried out in one slum of Dhaka City Corporation from January to June 2010. The study included 125 apparently healthy children and their mothers as respondents. **Result:** Among all the mothers 120 (96%) respondents fed their child colostrum; 54 (45.0%) respondents initiated breastfeeding within one hour of birth. 105 (84%) respondents gave prelacteal feeding. only 20 (16%) respondents practiced exclusive breastfeeding for 6 months. It was revealed that 80 (64%) mothers fed their child complementary feeding at the age 6-7 months. Nutritional status of the children was in $<3SD$ including 17.4% stunting, 19.1% wasting and 24.3% underweight. **Conclusion:** Traditional cultural barriers is still existed with poor practice of exclusive breast feeding while complementary feeding pattern had bizarre pattern.

Key words: Feeding pattern, slum children, nutritional status

Introduction

As a global public health recommendation, infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health¹. Thereafter, to meet their evolving nutritional requirements, infants should receive nutritionally adequate and safe complementary foods while breastfeeding continues for upto two years of age or beyond².

The baby should receive the breastfed as soon as possible and preferably within half an hour of birth². Overall, 43% of children are breastfed within one hour, and 89% are breastfed within one day after delivery¹. Late initiation of breastfeeding is a reason for introducing pre-lacteal feeding². More than six in ten newborns (62%) receive a pre-lacteal feeding¹. Recent WHO studies estimate that death rate in babies can go down four times if they are exclusively breastfed for the first six months². The risk of death from diarrhoeal diseases and pneumonia is 14 and 4 times higher in bottle-fed infant in developing countries respectively compared to infants exclusively breastfed for the first 4-6 months of their lives³. Although the prevalence of breastfeeding is very high in Bangladesh, it is almost 98% but appropriate breastfeeding is rarely practiced¹.

Complementary feeding is extremely essential and typically covers the period from 6 to 18-24 months of age. WHO recommend introducing complementary feeding only from the seventh month onwards⁴. Malnutrition has been responsible, directly or indirectly, for 60% of the 10.9 million deaths annually among children under five. Well over two-thirds of these deaths, which are often associated with inappropriate feeding practices, occur during the first year of life⁵. The purpose of the present study was to assess feeding pattern and nutritional status of under two years children.

Materials and Methods

A community based cross-sectional descriptive study was conducted during January-June 2010 to find out the feeding pattern and nutritional status of under two years children. Data was collected from slum near Basundhara residential area under Dhaka City Corporation and the study population were apparently healthy child aged between 6 to 23 months. In total, 125 children aged two years were selected purposively. Data were collected through face to face interview of the respondents using pretested semi-structured questionnaire and checklist. Length measuring scale-wooden measuring board (Infantometer) and Weight machine-bathroom scale were used for estimation of length and weight of the children. Data was cleaned, verified and

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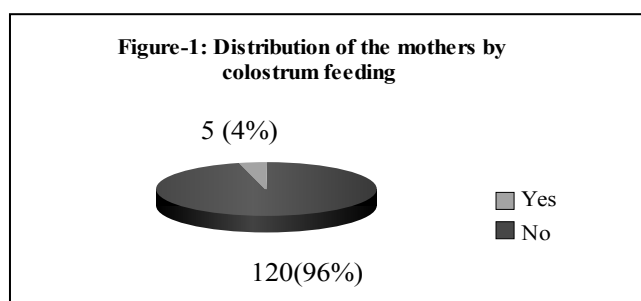
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edited if there were any discrepancy. The frequency distributions of the entire variables were checked by using SPSS 17.0 window program. During data analysis the raw anthropometric data of SPSS 17.0 were transferred to Anthro2005 to obtain derived indices of anthropometric measurements such as Weight for age Z scores (WAZ), Height for age Z score (HAZ) and Weight for height Z score (WHZ). The indices obtained from Anthropometry 2005 were then transferred again to the SPSS17.0 windows for further analysis. For tabular chart and graphical representation Microsoft word and Microsoft Excel were used.

Results

Out of total 125 mothers as respondents 120 (96%) mothers fed their child colostrum while only 5(4%) mother didn't fed their children colostrum (Figure-1).



Majority of the mothers (45.0%) started breast feeding to their children within one hour of birth, and other relevant finding are shown in the Table-1.

Table1: Timing of initial breastfeeding: n=120

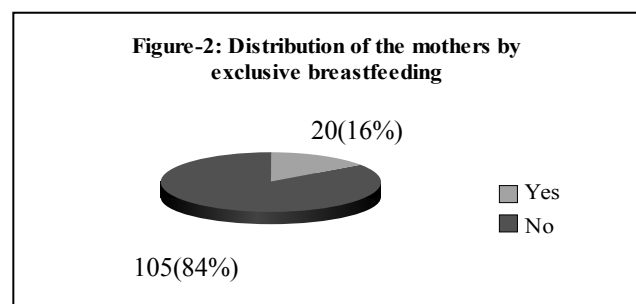
Time of initial breastfeeding	Frequency	Percentage
Within one hour	54	45.0
1-2 hour	42	35.0
3-4 hour	13	10.8
More than 4 hour	11	9.2
Total	120	100.0

Most of the mothers (84%) fed their child pre lacteal feeding while 31(29.5%) mothers fed their children honey

Table-2: Type of prelacteal feeding (n=105)

Type of prelacteal food	Frequency	Percentage
Honey	31	29.5
Water	13	12.4
Formula milk	6	5.7
Sugar water	31	29.5
Cow's milk	4	3.8
Water and formula milk	3	2.9
Honey, sugar water	15	14.3
Honey, cow's milk	2	1.9
Total	105	100.0

and sugar water separately. Other most common feeding are shown in the table-2. Regarding exclusive breastfeeding,



20(16%) mother exclusively breastfed their children but most of them (84%) mothers didn't exclusively breastfed their child. (Figure-2). Majority of the mothers (64%) started complementary feeding at 6-7 months while 24(19.2%) started at 4-5 months and others shown in the Table-3.

Table-3: Initiation of complementary feeding

Initiation of complementary feeding	Frequency	Percentage
2-3 months	3	2.4
4-5 months	24	19.2
6-7 months	80	64.0
More than 7 months	18	14.4
Total	125	100.0

In respect of types of complementary feeding, maximum mothers (36.8%) fed their children family food, followed by rice powder with milk (33.6%) & 25 (20.0%) respondents fed their child khichuri, and other are shown in the Table-4. Considering overall nutritional status out of 125 children, complete and plausible anthropometric data of 115 children aged 6-23 months were collected.

Discussion

Sample is presented as pattern of breastfeeding, relating colostrum feeding; in this study most of the respondents (96%) fed their child colostrum. According to BDHS 2007 it was 92% which was similar to the national survey. The likelihood of a child receiving colostrum increases with mothers' education by increasing awareness regarding colostrum feeding³.

Regarding initiation of breastfeeding most of the respondent (45.0%) initiate breastfeeding within one hour, 35.0% mothers fed their child between 1 to 2 hour. Summation of all initiation of breastfeeding it assumed that 96% respondents fed their children colostrum within one day after birth. According to BDHS 2007, it was shown that 89% were breastfed within one day after delivery¹.

Maximum respondent (84%) fed their child prelacteal feeding. Out of ten, more than eight mothers fed their child prelacteal feeding in national data it is 62% more than six in ten. Most of the respondents (29.5%) fed their child honey and sugar water separately, followed by plain water (12.4%), formula milk (5.7%) only cow's milk fed by 3.8% Prelacteal feeding is widely practiced in Bangladesh. Vast majority like 80% said honey 9% of mother said sugar water⁶.

Table-4: Type of complementary feeding

Type of complementary feeding	Frequency	Percentage
Barley	2	1.6
Biscuit	2	1.6
Cerelac	2	1.6
Family food	46	36.8
Kichuri	25	20.0
Noodles	2	1.6
Powder milk	4	3.2
Rice with milk	42	33.6
Total	125	100.0

It is shown that only 20(16%) respondents exclusively breastfed their child; rest of the respondents not exclusively breastfed their child. The prevalence of exclusive breastfeeding was very low. In NNP baseline survey showed a rate of exclusive breast feeding (12.8%) until six months of age. Another study from ICDDR,B reported the prevalence of exclusive breastfeeding to be 15% only³. Those babies who had taken prelacteal feeding were excluded from exclusive breastfeeding criteria.

Regarding initiation of complementary feeding maximum (64%) respondents gave their child complementary feeding between 6-7 months. Maximum child were started complementary feeding timely.

Table-5 Distribution of nutritional status of under two years slum children

Nutritional status	Parameter	Percentage
Height for age (Stunting)	Percentage below -2SD	42.60
	Percentage below -3SD	17.40
Weight for height (wasting)	Percentage below -2SD	36.50
	Percentage below -3SD	19.10
Weight for age (Under weight)	Percentage below -2SD	55.70
	Percentage below -3SD	24.30

Regarding type of complementary feeding maximum respondents (36.8%) fed their child with family food. Due to poverty family food were affordable for them. Next of them 42 (33.6%) respondents fed rice gruel with milk powder, 25

(20.0%) respondents fed their child kichuri. In present study, more than seven month of age group child were fed family food as primary complementary food. Family foods were rice, lentil and vegetables which were commonly practiced. Among 46 children those who take family food only five (10.87%) children were fed with fish, meat or egg. Out of ten nearly one child was given meat, fish, poultry or egg.

To evaluate the prevalence of under nutrition, in the study almost more than half of the children under two years age 55.7% were under weight and 42.6% were stunted and 36.5% were wasted. The proportion of children who were severely undernourished was also note able <3SD including 17.4% stunting, 19.1% wasting and 24.3% underweight. Countrywide data for the prevalence of malnutrition in urban slums under two year children are lacking. Under nutrition are more in rural to urban. But prevalence of under nutrition was more in slum area than rural or all urban⁷. Another study in Chittagong Hill Tract showed that the prevalence of underweight was 56% and stunting 48%⁸. In other study in Chittagong slum it was showed that it was 45-58% followed by Khulna slum (40-50%) and Dhaka slum (29-41%)⁹. In a study from India it was shown that the overall prevalence of underweight, stunting and wasting was 63.7%, 47.85% and 32.7% respectively¹⁰. It indicates that the children of under two years were in critical nutritional stress. Addressing nutritional problems of urban poor is therefore most for overall development of the country.

Conclusion

The study was permitted to conclude that the rate of early initiation of breastfeeding like colostrum was improved but prevalence of pre-lacteal feeding was still high which was harmful for the children. The percentage of exclusive breastfeeding was very low which was far away from acceptable range. Mother or caregivers should have proper knowledge regarding nutritive value of foods and ways to provide nutrition to their child.

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