

Socio-demographic characteristics of the mothers and infant feeding practices in some semi urban villages of a selected Upazilla

Mahejabin F¹, Khan AW², Sultana M³

Abstract

To identify the socio-demographic factors and to determine the breast-feeding and weaning practices of the mothers of infants in some selected villages of Dhamrai.

A descriptive type of cross sectional study was conducted from July to December, 2011. A total of 320 mothers were interviewed having infant up to the age of 1 year. A validated questionnaire, which consists of questions relating to socio-demographic data, breast-feeding and weaning practices, was used.

The total number of mothers interviewed was 320 who had infants up to 1 year of age. The mothers were mostly 154(48.1%) aged 21- 25 years and 107 (33.4%) aged 26-30 years. Most 151 (47.2%) of the mothers were educated up to primary level and 96(30%) up to secondary level. 71 mothers were illiterate. The mothers were mostly 190(55.4%) belonged to nuclear family and 129(40.3%) joint family. Most 301(94.1%) of the mothers were housewife. The monthly income of the respondents were Taka 5001-10000 amongst 149(47%) and Taka \leq 5000 132 (41%). The mean monthly family income of the respondents was 7626.56 \pm 3171.248 Taka. Out of 320 infants, 137 (43%) were aged 9-12 months, 124 (39%) were 6-9 months and 59 (18.4%) infants were aged \leq 6 months. The infants mostly 96(30%) weighted more than 8 kg, 95 (30%) weighted 6-8 kg and 76 (24%) weighted 4-6 kg. All the mothers had initiated breast feeding to their infants and majority 298(98%) were on breast feeding and 57 (96.6%) were on exclusive breast feeding during the study. The infants of \leq 6 months fed breast milk 8 times or more in a day, the infants of 6-9 months fed breast milk 6-8 times in a day and those not breast fed they fed liquid/soft foods 4-6 times in a day. The infants of 9-12 months fed breast milk 4-6 times in a day and those not breast fed they fed liquid/soft foods 6-8 times in a day. The infants mostly 57(96.6%) were on exclusive breast feeding at the age of \leq 6 months and on complementary feeding 77 (62%) and 83(60.5%) infants at the age of 6-9 and 9-12 months respectively. The infants were not on breast feed 13 (10.5%) at the age of 6-9 months and 23(16.8%) at the age of 9-12 months. Out of 320 respondents 315(98.4%) were aware about the usefulness of breast feeding and 5(1.6%) were not aware. Out of 320 respondents 269(84.1%) were aware about the complementary food and 51(15.9%) were not aware. Out of 320 respondents 218(68.1%) were aware about the knowledge of starting weaning food and 102(31.9%) were not aware about the starting of weaning food.

The results of the study indicate that the breast feeding practices among the mother of urban areas were well practiced.

CBMJ-2013; Jan: Vol-02, No-01: P: 43-48

Key words: Breast feeding, Exclusive breast feeding, Weaning, Complementary feeding

Introduction

Breast milk provides the main source of nourishment in the first year of life.¹ Breast-feeding has a unique biological and emotional influence on the health of both mother and infant. It is further more an important determinant of infant health in the prevention of malnutrition and infections.² The World health organization (WHO) recommends exclusive breast feeding for the first six months of age with early initiation and continuation of breast feeding for 2 years or more together with introduction of adequate complementary foods starting at six months of age.³ Breast milk is the best and safest food for young babies and it maintains optimum growth up to the age 4-6 months and thereafter faltering of growth occurs in most of

1. * Dr. Farzana Mahejabin
Assistant professor and Head
Department of Community Medicine
Dhaka Community Medical College
2. Prof. Dr. Abdul Wadud Khan
Principal and Professor of Community Medicine
Dhaka Community Medical College
3. Dr. Masuda Sultana
Assistant professor, Department of Physiology,
Dhaka Community Medical College, Mogbazar,
Dhaka.

* Address of correspondence
Email: farzanamahejabin@yahoo.com
Mobile: +8801731 186326

our children.⁴ At the age of 6 months breast milk, should be supplemented by additional foods rich in protein and nutrients.¹ It is important that the babies are given extra foods along with breast milk at the age of six months and in sufficient amounts to enable them to grow and stay healthy.⁴ These are usually cow's milk, fruit juice, soft cooked rice, dhal and vegetables.¹ World-wide about 30% of children under 5 are stunted as a consequence of poor feeding and repeated infections.⁵ In developing countries, an estimated 50.6 million children aged less than five years are malnourished. Recent data from the World Health Organization showed that 60% of all deaths, occurring among under-five children in developing countries, could be attributable to malnutrition.⁶ Mothers of poor nutritional status, has a remarkable ability to breast feed her infant for prolonged periods. Breast feeding should be initiated within an hour of birth. The first milk which is called colostrums is the most suitable food for the baby during early period, because it contains a high concentration of protein & other nutrients the body needs; it is also rich in anti-infective factors which protect the body against respiratory infections & diarrhoeal diseases. Under any circumstances breast milk is the ideal food for the infants. Artificial feeding is a hazardous procedure in homes because of the danger of the contamination. It is very important to advise the mothers to avoid the feeding bottles. Breast milk is almost completely digested & utilized for growth. It contains other proteins whose functions are anti-infective. Human milk contains vitamins & minerals in sufficient amount. Weaning started gradually around the age of 6 month. It should be supplemented by suitable foods rich in protein & other nutrients. These are called "supplementary food". The weaning period is most crucial period in child development, for during the weaning process children are particularly exposed to the deleterious synergistic interaction of malnutrition & infection. Weaning If not done properly is often followed by malnutrition and infection. Knowledge of weaning foods & practices is an important aspect of child health & development. At the age of 1 year the child should receive solid foods consisting of

cereals, pulses, vegetables & fruits. Efforts should be therefore be made to design & promote the use of feeding practice of infants. A child who is breast-fed has greater chances of survival than a child artificially feed.¹ With these backgrounds the present study was under taken to find out the socio-demographic status of the mothers and their Infant feeding practices in some selected rural areas of Bangladesh.

Methods:

This was a descriptive cross-sectional study conducted to find out the socio-demographic factors, breast feeding and weaning practices and awareness regarding usefulness of breast feeding and weaning in four selected semi urban villages at Dhamrai Upazilla health complex Dhaka.

The sample was selected from Srirampur, Dautia, Kalampur and Sutipara of Dhamrai upazilla, the subjects were the breast fed mothers having infants up to 1 year of age. All the infants within 1 year of age were included in the study. Trained interviewers collected information on age, sex, socio-economic characteristics and feeding practices of the infant by interviewing mothers.

A pretested questionnaire was used to collect data. A questionnaire was designed relating to demographic data (mother's age, infant's age, monthly income, the mother's educational level and breast feeding and weaning practices). A questionnaire survey was conducted by the interviewer using the local language and accuracy of response.

All data were collected at the women's homes by trained interviewers and paramedics. Structured questionnaires and open ended questions were used for data collection. All questionnaires were pretested and raised accordingly. The questionnaires were first prepared in English and then translated into Bangla. Informed consent was obtained from the women about their participation in the study.

Mothers were asked to recall about general feeding patterns in the previous month, that is, whether the baby was still breast fed and the feeding of plain water ; water containing sugar, glucose, or jaggery; fruit juice, cow's milk, semisolid and solid foods and number of times the baby was breast fed during the day.

Results:

The total numbers of mothers in the study were 320 who had infants up to aged of 1 year.

The mothers were mostly 154 (48.1%) aged 21-25 years and 107 (33.4%) aged 26-30 years. The mean age of the respondent is 25.34 years and SD = (\pm) 4.281. The mothers were mostly 190(55.4%) belonged to nuclear family and 129(40.3%) joint family. Most 151(47.2%) of the mothers were educated up to primary level and 96 (30%) up to secondary level. Illiterate mothers were 71(22.2%). The mothers 301(94.1%) were mainly housewife. The monthly income of the respondents were Taka 5001- 10000 amongst 149(47%)- with mean income with SD was Taka 7626.56 and + 3171.248 and Taka \leq 5000 among 132(41%). [Table-1] The age of the infants were evenly distributed in all age groups. Out of 320 infants, 137 (43%) were aged 9-12 months, 124 (39%) were 6-9 months and 59 (18.4%) infants were aged \leq 6 months. [Table-2] The infants of \leq 6 months fed breast milk 8 times or more in a day, the infants of 6-9 months fed breast milk 6-8 times in a day and those not breast fed they fed liquid/soft foods 4-6 times in a day. The infants of 9-12 months fed breast milk 4-6 times in a day and those not breast fed they fed liquid/soft foods 6-8 times in a day. [Table: 3] Out of 320 infants, majority 284(88.8%) infants were on breast feeding. The infants mostly 57(96.6%) were on exclusive breast feeding at the age of \leq 6 months and on complementary feeding 77 (62%) and 83(60.5%) infants at the age of 6-9 and 9-12 months respectively. The infants were not on breast feed 13 (10.5%) at the age of 6-9 months and 23(16.8%) at the age of 9-12 months. [Table -4] Out of 320 respondents 315(98.4%) were aware about the usefulness of breast feeding and 5(1.6%) were not aware. 269(84.1%) were aware about the complementary food and 51(15.9%) were not aware. 218(68.1%) were aware about the knowledge of starting weaning food and 102(31.9%) were not aware about the starting of weaning food. [Table-5]

Table: 1 Distribution of the respondents according to socio-demographic characteristics [n=320]

Socio-demographic characteristics	Frequency	Percent	Mean \pm SD
Age(Years)			25.34 \pm
\leq 20 years	33	10.3	4.281
21-25 years	154	48.1	
26-30 years	107	33.4	
\geq 30 years	26	8.1	
Type of Family			
Nuclear	190	59.4	
Joint Family	129	40.3	
Extended Family	1	0.3	
Educational Qualification			
Illiterate	71	22.2	
Primary level	151	47.2	
Secondary level	96	30.0	
Higher	2	6	
Secondary and above			
Occupation			
House wife	301	94.1	
Agriculture	5	1.6	
Service Holder	14	4.4	
Family Income			7262.56 \pm
\leq 5000 TK	132	41.3	3171.248
5001-10000 TK	149	46.6	
> 10000 TK	39	12.2	

Table 2: Frequency distribution.

Age of child	Frequency	Percent	Weight
≤ 6 months	59	18.4	2.9 kg
6-9 months	124	38.8	7.3 kg
9-12 months	137	42.8	8.1 kg
Total	320	100.0	

Mean = 8.44; (SD=± 3.042)

Table: 3 Age specific feeding

Age-group (months)	Breastfed	Type of food	Frequency and amount	Reasons for not breast feeding
≤6months	Yes	Only breast milk	8 times or more	-Insufficient breast milk. -Work load. -Illness of mothers. - Lack of knowledge.
6-9 months	Yes	Breast milk	6-8 times	
	No	liquid/Soft food	4-6 times	
9-12 months	Yes	Breast milk	4-6 times	
	No	Liquid/Soft food	6-8 times	

Table: 4 Feeding status of infants by age
n=320

Age (months)	Not breast feed (Other food)	Exclusive breast feed	Breast feeding and other foods	Total		
				Plain water	Cow's milk	Complementary feeding
≤6months	0	57(96.6%)	0	02(3.38%)	00	59(18.4%)
6-9 months	13(10.5%)	00	03(2.4%)	31(25%)	77(62%)	124(38.7%)
9-12 months	23(16.8%)	00	00	31(22.6%)	83(60.5%)	137(42.8%)
Total	36(11.2%)	57(17.8%)	03(0.9%)	64(20%)	160(50%)	320(100%)

Table: 5 Distribution of the respondents by Knowledge of usefulness of breast feeding, complementary feeding and starting weaning food

Knowledge of usefulness of breast feeding	Number	Percent
Yes	315	98.4
No	5	1.6
Knowledge on Complementary food		
Yes	269	84
No	51	16
Knowledge of starting weaning food		
Yes	218	68
No	102	32

Discussion:

The findings of the study suggested that the majority (98%) of the mothers were breast feeding at the time of interview. Similar findings were found in the study done in the Vhembe District of Limpopo Province² and other countries where 90% of mothers in urban areas breast feed their babies. The reasons given by the mothers who were not breast feeding (2%) in the study were not enough breast milk, work load, or health reasons. Almost similar findings were observed where insufficient breast milk, work

load, mother's illness and lack of knowledge or awareness was the reason.

Exclusive breast feeding practices under six months was found 96.6% by the present study. But in a study on 'Infant and young child feeding Practices in Bunkura District, West Bengal India' showed that exclusive breast feeding under six months was 57.1%.³ It may be due to the lack of awareness about the usefulness of breast milk among the mothers and could be attributed to supplementation with plain water in early months and milk other than breast milk in later months. Another study on "Appropriate infant feeding practices result in better growth of infants and young children in rural Bangladesh" showed that about 92% of mothers gave colostrums to their infants, and only 8% of them give prelacteal food or drink. Almost all infants (99.4%) were breast fed at 1 month of age and 92% Of them were still breast feeding at 12 month of age. The proportion of infants who were exclusively breast fed decreased from 78.3% at 1 month of age to 10.7% at 6 months of age.⁷

The study done in the Vhemble Distric of Limpopo Province (South Africa) found that only 7.6% of the mothers had practiced exclusive breast feeding for infants aged below t three to six months. Similar findings are observed in the same country, which report that only 10. 4 % and 6. 7% of the infants under six months had been exclusively- breast fed. It is clear from the observations that very few mothers (approximately10%) in the country were practiced exclusive breast-feeding.² These may due to the fact that the mothers were not aware of the importance of breast feeding.

Haque M J, et al. conducted a study on "Infant Feeding Practice by the Rural Mothers of Dinajpur District"⁸ and found that the common weaning food were Suji (43.5%), Khichuri (36.1%), boiled eggs (25.6%) and fruit juice (24.4%) which was more or less similar to this study where Khichuri/ Hotchpotch was taken 92(49.7%), Suji 47(21.5%) and mixed food 57 (30.7%), as weaning food. The present study showed that at 6-9 months of age 62% infants were fed with complementary foods and at 9-12 months of age 60.5% infants were fed with complementary foods. The study on "Appropriate infant feeding practices result in

better growth of infants and young children in rural Bangladesh" observed that at 6 months of age 49.6% of the infants were given semisolid foods and 66.4% at 9 months of age. At 6 months of age 66.7% of infants were fed with complementary foods that increased to 95% at 9 months of age.⁷

The present study also showed that most of the mothers 315(98.4%) were aware about the usefulness of breast feeding. These findings are almost similar with findings conducted by Li M Wen, et al. in the study on "Intention of breast feeding and awareness of health recommendations: findings from first-time mothers in southwest Sydney, Australia".⁹ They found breast feeding decisions and practices are influenced by multiple factors including knowledge, attitudes and beliefs as well as socio-cultural and physiological factors.¹⁰⁻¹⁴ In developed countries like Australia, mothers who are younger (under 25 years old), have less education, or are most socio-economically disadvantage tend to have lower rates of full breast feeding, rates of initiation and duration of breast feeding.^{15,16}

A descriptive cross sectional study on mother's knowledge and practice related to weaning at Butajira, S.Ethiopia in 1994 and revealed that 68% children were on weaning diet.¹⁷ This findings was similar to this findings where we found 218 (68.1%) had the knowledge of starting weaning food.

Conclusion:

In conclusion, the findings of this study indicate that almost all mothers practiced breast-feeding and did so exclusively. Most of the mothers had introduced solid foods to their child by six months and khichuri being the main weaning food. This has implications on efforts by health authorities to encourage exclusive breast feeding and introduction of weaning food at six months and continuation of breast milk up to 2 years. The benefits of exclusive breast feeding have been well demonstrated; these include satisfactory feeding practices, mother's attitude and knowledge on breastfeeding. Further follow up is needed to improve the sustainability of exclusive breast feeding and to establish the support structures and systems that women to be able to breast feed exclusively for the recommended period.

References:

1. K.Park. *Preventive and Social Medicine*. 21st ed. 2011.
2. *Infant-feeding practices of mothers and the nutritional status of infants in the Vhemble District of Limpopo Province*
3. Sinhababu A, Mukhopadhyay D K, Panja T K et al. *Infant and young child feeding practices in Bankura District, West Bengal, India*; *J Health Popul Nutr*. 2010 June; 28(3): 294-299.
4. Das D.K, Talukder M. Q-K, Sella G.E, *Infant feeding Practices in Rural Bangladesh*; *INDIAN JOURNAL OF PEDIATRICS* 1992;59: 573-577.
5. *WHO/Global strategy for infant and Young Child Feeding*
www.who.int/nutrition/topics/global_strategy/en/index.html
6. Faruque A.G.S., Ahmed A.M, Ahmed T et al. *Nutrition: Basis for Healthy Children and Mothers in Bangladesh*. *J Health Popul Nutr*. 2008 September; 26(3): 325-339.
7. Saha K.K., Frongillo E.A., Alam D.S., Arifeen S.E., et al: *Appropriate infant feeding practices result in better growth of infants and young children in rural Bangladesh*, *AmJ Clin Nutr* June 2008 Vol. 87 No.6 1852-1859.
8. Haque M J, Rahman M M, Sarkar SK, Ali MA, et al: *Infant Feeding Practice by the Rural Mothers of Dinajpur District*, *Journal/DjMCJ_V3/14_djmcj_v3_il_Jawad_Infant.pdf*.
9. Li M Wen, Louise A Baur, Chris Rissel, et al. *Intension of breastfeed and awarness of health recommendations: findings from first-time mothers in southwest Sydney, Australia*: *International Breastfeeding Journal* 2009, 4:9
10. Garden F, Hector D, Eyeson-Annan M, Webb K: *Breast feeding in New South Wales: Population Health survey 2003-2004*. Sydney; NSW Centre for public Health Nutrition, University of Sydney, Australia: *International Breastfeeding Journal* 2009, 4:9
11. Chambers JA, McInnes RJ, Hoddinott P, Alder EM: *A systematic review of measures assessing mothers' knowledge, attitudes, confidence and satisfaction towards breastfeeding*.
12. Papinczak TA, Turner CT: *An analysis of personal and social factors influencing initiation and duration of breastfeeding in a large Queensland maternity hospital*. *Breastfeeding Review* 2000,8 (1): 25-33.
13. Kong SKF, Lee DTE: *Factors influencing decision to breastfeed*. *Journal of Advanced Nursing* 2004, 46:369-379.
14. Chezem J, Friesen C, Boettcher J: *Breastfeeding knowledge, breastfeeding confidence, and infant feeding plans: effects on actual feeding practices*.
15. Hector D, Webb K, Lyner S: *Describing breastfeeding practices in New South Wales using data from the NSW Child Health Survey, 2001*. *New South Wales Public health bulletin* 2005, 16(3-4):47-51.
16. *Journal of Obstetric, Gynecology, & Neonatal Nursing* 2003, 40-47. *Feeding: Status and Its determinants in a Rural Bangladesh*. *International Medical Journal* March 2004; 11(1): 19-23.
17. Bekele A, Berhane Y: *Weaning in Butajira, south Ethiopia: a study on mother's knowledge and practice*: *Ethiopia Med J*. 1998 Jan; 36(1):37-45.