

Breastfeeding and Weaning Practices among Selected Rural Mothers of Bangladesh

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Abstract

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 health. Thereafter, to meet their evolving nutritional requirements, infants should receive nutritionally adequate and safe complementary foods after 6 months of their age while breastfeeding continues for up to two years of age or beyond.

Objective: To find out the pattern of breastfeeding, pre-lacteal feeding and complementary feeding practices among the mothers of 06 months to 3 years old children in a selected rural area.

Material and Methods: This descriptive cross-sectional study was conducted among 390 rural mothers from selected villages of Manikganj and Dhaka district from October to December 2016. Data were collected through face-to-face interview with a preformed semi-structured questionnaire.

Result: Among 390 mother only 44.8% started breastfeeding within an hour of child birth. Pre-lacteal feeding practice was very high (70.4%) and 36.7% mother fed their baby with infant formula. The duration of exclusive breastfeeding was variable; about 49.7 % of children were exclusively breastfed for 5-6 months. Among the variety of foods, most common complementary foods include suji (20.1%), homemade hotchpotch (17.5%), natural cow's milk (16.3%) and infant formula (16.1%).

Conclusion: This study data suggest that delayed initiation of breastfeeding rate is high along with pre-lacteal feeding. An intensive program is needed create awareness among the rural mothers about exclusive breastfeeding and proper weaning.

Key-words: Breastfeeding, Weaning, Rural mother.

Introduction

Children are the future leader of a nation. To lead the nation towards prosperity, comprehensive child development

program is needed on a priority base. A newborn baby has only 3 demands; these are warmth in the arm of a mother, food from her breast and security of her presence¹. Breastfeeding satisfies all, so breastfeeding practice plays a pivotal role in the optimal development of infants. Poor breastfeeding and improper weaning practices have adverse consequences for the health and nutritional status of children. This, in turn, has also consequences for their mental and physical development². Adequate nutrition during infancy and early childhood are essential to ensure the proper growth, health and development of children to reach their potential. WHO and UNICEF recommend exclusive breastfeeding for six months and the addition of complementary feeding at the end of six months of age with continued breastfeeding till at least 2 years³. Early initiations of breastfeeding and exclusive breastfeeding of children upto six months are considered the two most decisive indicators for assessing breastfeeding practice in infants⁴.

The human milk has inherent anti-infective properties which no other milk has. This protective function of human milk is particularly important in developing countries where there is more chance of exposure to infection⁵. Early initiation of breastfeeding is extremely important for establishing successful lactation as well as providing 'Colostrum' (mother's first milk) to the baby. The baby should receive the breastfed as soon as possible and preferably within an hour of birth. Colostrums are yellowish in colour and sticky. It is highly nutritious and contains the anti-infective substance Ig A which is basically the first immunization that a child receives from the mother⁶. Late initiation of breastfeeding not only deprive the child from the valuable colostrum but becomes a reason for introducing pre-lacteal feeds like glucose water, honey, animal or powder milk which are potentially harmful and invariably contribute to diarrhoea in the newborn. More than six in ten newborns (62%) receive a pre-lacteal feeding⁷.

The WHO studies estimate that death rate in babies can go down four times if they are exclusively breastfed for the first six months. The risk of death from diarrhoeal diseases and

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pneumonia is, respectively, 14 and 4 times higher in the bottle-fed infant in developing countries compared to infants exclusively breastfed for the first 4-6 months of their lives⁸. A new baby-friendly hospital initiative (BFHI) created and promoted by WHO and UNICEF, have proved highly successful in encouraging proper infant feeding practices, starting at birth. The global baby-friendly hospital initiative (BFHI) has listed the steps which the hospital must fulfill⁹. WHO recommends that infants start receiving complementary food at 6 months of age in addition to breast milk, initially 2-3 times a day between 6-8 months, increasing 3-4 times daily between 9-11 months and 12-24 months with additional nutritious snacks offered 1-2 times per day, as desired¹⁰.

The American Academy of Pediatrics and the American Dietetic Association promote breastfeeding as 'the best source of infant nutrition'. It is also a bonding experience for both mother and baby and can be less expensive than formula¹¹. Breastfeeding declined significantly from 1900 to 1960, due to increasingly negative social attitudes towards the practice and the development of infant formula¹². Today, many health authorities consider human breast milk the healthiest form of milk for babies^{13,14}. A rural community based cross sectional descriptive study was conducted to find out the pattern of breast feeding and weaning practice of 06 months to under three years children.

Materials and Methods

This descriptive cross-sectional study was conducted in village Baliati of Sauria Upazilla, Manikganj District and village Ashulia of Dhamrai Upazilla, Dhaka District from October to December 2016. The targeted study population was mother of the children of 06 Months to 03 years residing in the study area. The sample size was 390 and non-probability purposive type of sampling was followed for this study. Data were collected by face-to-face interview of the mothers on a semi-structured questionnaire containing close-ended questions. The data were checked verified and edited daily. After checking and rechecking, data were analyzed by using Microsoft office package program. The frequency range and consistency were checked. Data were presented in the forms of tables and figures after analysis.

Results

Children of age group 6-12 months have the highest frequency of 27.9% and majority (53.8%) of the children were male (Table-I). Among the 390 respondents 200 (51.3%) mother was secondary level educated, maximum 336 (86.1%) were housewives and 241 (61.8%) respondents' monthly family income was less than 10,000 taka (Table-II). According to the breastfeeding status of children majority (96.7%) of them were breastfed and about 44.8% of them

were breastfed within an hour of birth (Table-III). The reason behind delayed starting of breastfeeding found majority (52.9%) due to insufficient flow and 4.8% mothers did not know the benefits of colostrums. Maximum (70.26%) baby got the pre-lacteal feeding and among them, 36.7% of children were given infant formula (Table-IV).

Table-I: Age and Sex distribution of children (n=390)

	Characteristics	Frequency	Percentage
Age (Month)	6-12	109	27.9
	13-18	71	18.2
	19-24	62	15.9
	25-30	44	11.3
	31-36	104	26.7
	Total	390	100
	Gender	Male	210
Female		180	46.2
Total		390	100

Table-II: Socio-demographic characteristics of the respondents

	Characteristics	Frequency	%
Education Status	Non-formal	28	7.2
	Sign only	42	10.8
	Primary	75	19.2
	Secondary	200	51.3
	Higher Secondary	23	5.8
	Graduate & More	22	5.6
	Total	390	100
Status of Occupation	House Wife	336	86.1
	Day Laborer	13	3.3
	Agriculture worker	12	3.1
	Service Holder	22	5.6
	Self Employment	07	1.8
	Total	390	100
Monthly family income	<5000	84	21.5
	5001-10000	157	40.3
	100001-15000	73	18.7
	>15000	76	19.5
	Total	390	100

Table-III: Breast feeding status of the respondents

	Characteristics	Frequency	Percentage
Breast feeding Status	Yes	377	96.7
	No	13	3.3
	Total	390	100
Initiating Hour	Within an hour	169	44.8
	2-6 hours	59	15.6
	6-12 hours	29	7.4
	12-24 hours	17	4.5
	24-48	90	23.8
	48-72	10	2.6
	Infrequency	03	0.8
	Total	377	100

Table-IV: Reason of not initiating breast feeding on time and type of pre-lacteal feeding

Characteristics		Frequency	Percentage
Reason of not initiating breast feeding on time	Flow was insufficient	110	52.9
	Baby was unable to suck	6	2.9
	Stigma about colostrum	10	4.8
	Others	82	39.4
	Total	208	100
Type of pre-lacteal feeding	Plain Water	27	6.90
	Honey		74
	Cow's milk	30	7.69
	Infant formula	143	36.66
	No pre lateal feeding	116	29.74
	Total	390	100

Table-V: Distribution of respondents according to duration and choice of complementary feeding

Characteristics		Frequency	Percentage
Duration of exclusive feeding	<3 months	23	06
	3-4 months	39	10
	5-6 months	194	49.7
	>6 months	66	17
	no exclusive breastfeeding	68	17.3
	Total	390	100
Choice of Food*	Cow's milk	160	16.3
	Baby formula	158	16.1
	Hotchpotch	172	17.5
	Suji	198	20.1
	Family food	153	15.6
	Eggs		97
	Fruits	3	7
Others	08	0.8	

* Multiple responses

Discussion

In this study among 390 children, it was found that about 27.9% (109) children were aged between 6-12 months, and 53.8% of them were female children. Maximum parents were educated upto secondary level and most of the family had the monthly income within 5001-10000 taka. WHO recommends breast feeding should be started within one hour of delivery and it should be continued exclusively up to 06 months. The Baby Friendly Hospitals are established to promote these goals. According to Bangladesh Demographic and Health service Survey (BDHS) 2013 it was found that the percentage of breast feeding was 92% which is consistent with this study where most of the respondents (96.7%) breastfed their child. The National Nutrition Program of Ministry of Health and Family Welfare reported that 98% of 28584 newborn babies were fed colostrum. The likelihood of child receiving breast feeding increases with mother's education level¹⁵. Regarding initiation of breast feeding, most of the respondent (44.8%) initiate breast feeding within an hour, followed by 27.5%

within 24 hours, 23.8% within 48 hours and 2.6% within 72 hours. According to IFPRS¹⁶, it was shown that 89% were breastfed within one day after delivery. This early initiation of breast feeding rate is lower here which were caused due to insufficient flow of milk (53.0%) and lack of physical fitness of mother after delivery (39.0%).

It was found that maximum respondent that is, 70.26% fed their child prelacteal feeding. Prelacteal feeding was calculated along with the colostrum intake. Most of the respondents 36.7% fed their child infant formula, 25.6% respondents fed their child combined honey and plain water. So most of the respondents used infant formula as prelacteal feeding followed only plain water 18.6% and only cow's milk fed by 7.7%. Prelacteal feeding is widely practiced in Bangladesh. More than 60% received prelacteal feeding; these are the various kinds of prelacteal liquids given to Bangladeshi children according to the Institute of Public Health Nutrition, vast majority 80% said honey, 9% of mothers said sugar water¹⁷. Though honey is the main prelacteal feeding here but the percentage of prelacteal feeding practice is almost similar. This practice exposes the newborn to different types of infectious agent and challenges to an already weak premature or immature GI system¹⁸. Breast milk is the best gift which is provided by nature which met up all the energy and nutrients demand of the baby up to 06 months of age. In this study, only 49.7% respondents exclusively breast fed their child; most of the respondent not exclusively breastfed their child. According to BDHS, 2013 it is 43%¹⁹ which is almost similar to this study but the prevalence of exclusive breast feeding should be higher. Another study from Abhoynagar field site of icddr,b reported that prevalence of exclusive breast feeding to be 15% only. But, whereas according to survey in India, mean duration of exclusive breast feeding was 3.3 months. Infants aged less than two months only 23.3% were exclusively breastfed²⁰. Though in this study, the exclusive breast feeding status is better than others but we think certain local custom and culture probably hamper the exclusive breast feeding status.

Sample present as pattern of complementary feeding shows that maximum 33% respondents give their child complementary feeding between 6-7 months and 23.4% started by the age of 5-6 months. So we think maximum child were started complementary feeding almost timely. Only 14.3% child started complementary feeding within 3-5 months of age which is earlier than the demand and maturity. According to Care of Brest feeding (CBF) among children age group 6-7 months, about 3 in 4 children (74%) received complementary food and 20.3% respondent started complementary feeding after 6 months²¹ which is almost similar to our study. In this study, the pattern of complementary

feeding (multiple response given) reveals, most of the rural people i.e. 20.1% prefer rice powder mixed milk (suji) as complementary feeding, 16.1% children were given tinned baby formula and another 16.3% children were given natural cow's milk. The rate of providing special homemade hotchpotch 17.5% while eggs were given to 9.9% children and fruits to 3.8%, natural food of family 15.6% as their complementary food. Comparing to another study in Moharashtra, India, more than 70% infant started complimentary feeding at the age of 06 to 09 months, and maximum (70%) started with semisolid food and khichuri²⁰. According to study in Ethiopia, more than seven months of age group child were fed family food as primary complementary feeding. Family foods were rice, lentil and vegetables. Only 10.87% children were fed with fish, meat and egg. The picture is not the same in different places, which basically influenced by their educational level and local food habit.

Conclusion

Improving the infants and young child feeding practices have been identified as a fundamental intervention to deal with the suboptimal nutritional status of children less than 3 years of age in resource-limited countries like Bangladesh. Therefore, extensive community investigation is essential to find out the obstacles for exclusive breastfeeding. Children above 06 months of age need complimentary food other than breast milk which fulfills their energy, protein and micronutrient requirement. So parents should be more aware about the quality and quantity of food and in this regard mass media awareness rising is very much needful. Overall community participation and mass awareness are essential for the promotion of exclusive breastfeeding and proper weaning practices for healthy child and thereby a wealthy nation.

References

1. Dick G. The Unhappy Breastfed baby. Accessed on 2015. Available from: <https://www.laleche.org.uk/unhappy-baby.Article>.
2. Baker R. Human milk substitutes- An American perspective. *Minerva Pediatr* 2003; 55(4):195–207.
3. Park, K. Park's Textbook of Preventive and Social Medicine. 23rd ed. M/S Banarsidas Bhanot Publishers, Jabalpur 2015:530-40.
4. Kramer MS, Kakuma R. Optimal duration of exclusive breastfeeding. *Cochrane Database Syst Rev* 2012; 8:CD003517.
5. Agostoni C, Haschke F. Infant formulas-Recent developments and new issues. *Minerva Pediatr* 2003; 55(3):181–94.
6. Johnston M, Landers S, Noble L et al. Breastfeeding and the use of human milk. *Pediatrics* 2012; 129(3):e827-41.
7. Falco M. Study: lack of breastfeeding costs lives, billions of dollars. Available

from: <http://edition.cnn.com/2010/HEALTH/04/05/breastfeeding.-costs/index.html>.Article

8. Oddy WH, Kendall GE, Li J et al. The long-term effects of breastfeeding on child and adolescent mental health: A pregnancy cohort study followed for 14 years. *J Pediatr* 2010; 156(4):568–74.
9. National Health Service (NHS), UK, Why breastfeed? <https://www.nhs.uk/unhappy-baby.Article>.
10. Galson SK. Mothers and Children Benefit from Breastfeeding. *J Am Diet Assoc* 2009; 109(6):982.
11. Dewey KG, Heinig MJ, Nommsen LA. Maternal weight-loss patterns during prolonged lactation. *Am J Clin. Nutr* 1993; 58(2):162-6.
12. Fisher D. Social drugs and breastfeeding. <https://www.health-elearning.com/resources/articles/40-social-drugs-and-breastfeeding.Article>.
13. Riordan J. Countryman, BA. Basics of breastfeeding. Part-I: Infant feeding patterns past and present. *JOGN Nurs* Jul 1980; 9(4):207–10.
14. Faruque ASG, Ahmed A, Ahmed TI et al. Nutrition: basis of healthy children and mother in Bangladesh, JPHN, 2012; 26:325-39.
15. International Food Policy Research Institute (IFPRI). The Status of Food Security in the Feed the Future Zone and Other Regions of Bangladesh 2013:220-40.
16. IPHN, DGHS, Ministry of Health And Family Welfare, GOB. National strategy for infant and young child feeding in Bangladesh. IPHN 2007:45-55.
17. Rashid M, Labrique A, Shamim AA et al. Prolactin feeding delays breast feeding initiation in rural Bangladesh. Common wealth association of pediatric gastroenterology and nutrition, Dhaka, Bangladesh 2012; 141(180).
18. Rahman MM, Ahmed MSU, Siddique MAB et al. Nutritional Status and Complementary Feeding Practices of 6-11 months Children attending ICDDR Hospital. *Bangladesh Journal of Nutrition* 2009-2010; 22-23:11-20.
19. Mahmood SE, Srivastava A, Shrotriya VP et al. Infant feeding practices in the rural population of north India. *J Family Community Med* 2012; 19(2):130–5.
20. Shaikh MR, Nagaonkar SA. A community based study of breast feeding and weaning practices among mothers in urban field practice area of SRTR, GMC, Ambajogai. *Int J Community Med Public Health* 2018; 5(1):191-7.
21. USAID IYCN. Focusing on improved complementary feeding in Ethiopia. Trials of improved practices in an urban area. Addis Ababa: USAID; 2011:21-34.