

Infant and Young Child Feeding Practice among Mothers in Rural Areas of Gazipur District, Bangladesh

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Abstract

A cross-sectional, descriptive study was conducted among 599 mothers who had at least one child aged 0–23 month to determine infant and young child feeding practice (IYCF) in rural areas of Bangladesh. The study was conducted between November 2019 and March 2020 in rural areas of Gazipur district. A pre-tested semi-structured questionnaire was used to collect data. Out of 599 respondents, the majority (62.93%) were in the 21-30 years age-group. Only 6.67% were illiterate and the rest of the respondents were literate with different levels of education. About one third (33.38%) of the respondents had monthly income between BDT 5001- 15000. 27% of the mothers could not give colostrum to the babies; half of them (50%) mentioned that baby could not suck well, while 43.83% mentioned being advised by the elders (not to give colostrum) and 6.17% mentioned their own illness. Pre-lacteal feeding practice was observed among 27% mothers and common pre-lacteal food was honey (61.25%), sugar water (35.63%) and animal milk (4.32%). Breastfeeding was initiated within the first hour of birth among 73.29% of mothers. 53.26% percent of mothers practice exclusive breastfeeding (EBF). Difficulties faced by mothers for EBF are insufficient secretion of breast milk (46.42%), not having knowledge about EBF (42.51%), and mother's illness (11.07%). Most of the mothers (81.63%) gave complementary feeding in the correct time (6 months) and predominant complementary food was Khichuri (51.91%); however, most of them (60.77%) gave complementary food ≤3 times in a day. Our data suggests that the practice of IYCF was not optimum among the rural mothers. To improve this condition, it is necessary to motivate mothers through proper health education about the positive impacts of IYCF on child health.

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Introduction

Infant and young child feeding (IYCF) practices play a vital role in the growth and development in the early months of life.¹ The global strategy for infant and young child feeding was approved by the World Health Assembly (WHA) in May 2002 and was endorsed by UNICEF. These feeding practices are known collectively as Infant and Young Child Feeding (IYCF) practices which include breastfeeding and complementary feeding.² The first two years of children's lives provide a critical window of opportunity to ensure survival, growth, and development through optimum infant and young child feeding (IYCF) practices.^{2,3} It has been recognized worldwide that breastfeeding is beneficial for both the mother and child.^{2,4} Optimal feeding practices, including the initiation of breastfeeding within one

hour of birth, exclusive breastfeeding (EBF) for six months,² and continuation of breastfeeding

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for up to two years and beyond, with age-appropriate complementary feeding.^{2,3} Complementary feeding focuses on bridging the gradual transition between 6 and 24 months from exclusive breastfeeding to solid foods eaten by the whole family alongside breastfeeding.⁵ Inappropriate feeding practices, such as the absence of breastfeeding, premature or too late introduction of complementary and weaning foods, which is nutritionally insufficient, harm child growth and development particularly in developing countries.^{6,7} The level of childhood malnutrition is exceptionally high in South Asia, ranging from 45-48% in Bangladesh, India, and Nepal, 38% in Pakistan, and 30% in Sri Lanka.⁸ Infants aged 0-5 months who are not breastfed have 7-fold and 5-fold increased risks of death from diarrhea and pneumonia respectively, compared with infants who are exclusively breastfed.^{9,10} Evidence also showed lacking in complementary feeding practice across South Asia region.¹¹ As a global public health recommendation, Bangladesh emphasizes that infants should be exclusively breastfed for all children up to 6 months of age, followed by the introduction of nutritionally adequate and safe complementary foods at 6 months, while continuing breastfeeding until the child reaches 2 years.¹² Besides, improving infant and young child feeding (IYCF) practices have been identified as a fundamental intervention to deal with the suboptimal nutritional status of children in resource-poor countries like Bangladesh.^{12,13} However, the optimum rate of IYCF has not been achieved yet.¹² This study aims to assess infant and young child feeding practice (IYCF) among mothers who had at least one child aged 0-23 months in selected rural areas of Gazipur district in Bangladesh.

Methods

This cross-sectional, descriptive study was conducted, in four villages named Sataish, Gutia, Andarul and Rajabari under Gazipur district in Bangladesh, between November 2019 and March 2020. A convenient sampling technique was followed to select the samples. A total of 599 women were finally selected who had at least one child aged 0-23 months were interviewed face-to-face using a semi-structured questionnaire. The instrument was pre-tested among 20 women primarily for clarity, accuracy and unambiguity and to find out the validity of the questions. The research instrument contained mainly screening type questions – some structured questions with few unstructured questions. Hence, the final study questionnaire was composed of socio-demographic and infant and young child feeding practice (IYCF) related questions.

Data was checked and verified manually. Data analysis was done after entering an MS-Excel sheet. Quantitative variables were analyzed by mean \pm SD, while qualitative variables were summarized by frequency and percentage. This research was approved by the Institutional Ethical Review Committee of International Medical College, Tongi, Gazipur, Bangladesh.

Results

Out of 599 respondents, the majority (62.93%) were within the 21-30 years age group and were Muslim (95.99%). Only 6.67% of the respondents were illiterate. Among literate, the majority 47.41% had primary education and the rest had higher secondary or above levels of education. Most of the respondents were housewives (90.15%). More than half of the respondents were

348(58.00%) belonged to nuclear family, while 251(42.00%) belonged to joint family. About one-third of the respondents (33.38%) had monthly income between BDT 5,001 and15,000, while few (9.51%) had monthly income less than BDT 5,000 (Table-I).

Table-I: Socio-demographic characteristics of the respondents (n=599)

Variables	Frequency	Percentage	
Age group (in years)	≤ 20	155	25.87
	21– 30	377	62.93
	>30	67	11.18
Religion	Muslim	575	95.99
	Hindi	22	3.71
	Christian	2	0.3
Educational status	Primary	284	47.41
	S.S.C	194	32.38
	H.S.C & above	77	13.51
	Illiterate	40	6.67
Occupation	Housewife	540	90.15
	Day worker	23	3.83
	Services	16	2.67
	Agriculture worker	11	1.83
	Business	9	1.50
Type of family	Nuclear family	348	58%
	Joint family	251	42%
Monthly family income (in BDT)	<5000	57	9.51
	5001 – 15000	200	33.38
	15001 – 25000	176	29.38
	>25000	166	27.71

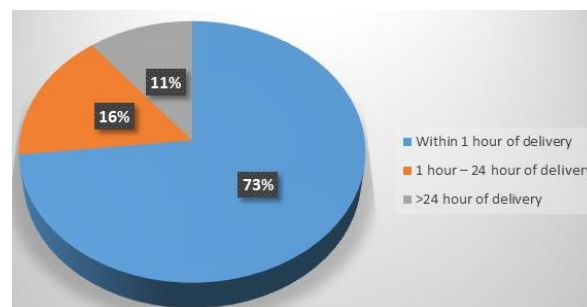
About three-fourths of the respondents (73.00%) gave colostrum to their babies. Among the mothers who did not practice colostrum feeding, about half of them (50%) mentioned that baby could not suck well, while 43.83% mentioned being advised by the elders (not to give colostrum) and 6.17% mentioned their own illness. Most of the respondents 61.25% provided honey as first food to the babies, followed by sugar water (35.63%) and animal milk (4.32%) instead of giving colostrum (Table-II).

Only 439 mothers (73.00%) had an initiation of breast milk within 1 hour of their delivery, 16% had it within 24 hours and 11.00% had it after 24 hours of delivery (Fig. 1).

Table-II: Information about giving colostrum to the babies

Variables	Frequency	Percentage	
Colostrum given	Yes	437	73.00
	No	162	27.00
	Total	599	100.00
Reason for not giving colostrum	Baby could not suck	81	50.00
	Elder's advice	71	43.83
	Mother's illness	10	6.17
	Total	162	100.00
Types of pre-lacteal food given instead of colostrum	Honey	98	61.25
	Sugar water	57	35.63
	Animal milk	7	4.32
	Total	162	100

Fig. 1: Pie chart showing Time of initiation of breast milk



Only 319 mothers (53.26%) could practice exclusive breast feeding (EBF) to their babies. Causes behind not practicing EBF include insufficient secretion of breast milk (46.42%), not having knowledge about EBF (42.51%), and mother's illness (11.07%) (Fig. 2). Most of the respondents initiated complementary feeding after 6 months (81.63%). About half of the respondents (51.91%) preferred khichuri as complementary food; however, the majority (60.77%) fed their babies ≤3 times/day (Table-III).

Fig. 2: Bar diagram showing reasons behind not practicing exclusive breast feeding (n=280)

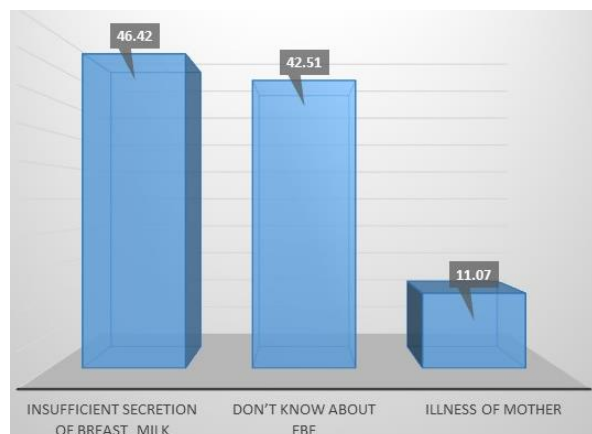


Table-III: Information about complementary feeding practice (n=599)

Variables		Frequency	Percentage
Initiation of complementary feeding	Before 6 months	110	18.36
	After 6 months	489	81.63
Type of complimentary food	Khichuri	311	51.91
	Suji	209	34.89
	Fruit Juice	79	13.19
Frequency of complementary food	≤ 3 times / day	364	60.77
	>3 times/ day	235	39.23

Discussion

In this study, 599 mothers were interviewed by using a pretested semi-structured questionnaire. The present study showed that the highest percentage 377(62.93%) of the study sample were in the 21-30 years age group. Most of the respondents were Muslim (95.99%) and housewives (90.15%). In this study, 58% of the respondents belonged to the nuclear family. One-third (33.38%) respondents had monthly income between BDT 5001-15000. Those findings are more or less similar to the findings of another study done in Bangladesh previously.¹ About three-fourth (73%) mothers gave colostrum to

their children in the present study. Similar results were found in Indian studies,¹⁴⁻¹⁶ but it was higher in another study done in Bangladesh.¹⁷ It may be due to better presence of awareness among the mothers residing into that specific region.

Mothers who could not give colostrum due to three reasons: baby's inability to suck, no knowledge or misconception about colostrum and mother's illness. Similar studies done in India reported lack of knowledge or misconception as the prime reason.^{16,18} Prevalence of prelacteal feeding practice of the current study were 27%. Similar findings were observed in Indian and Ethiopian studies.^{16,19} On the other hand, our findings are slightly lower than that of other studies done in Bangladesh and India.^{1,18} This may be due to the difference in geographic region and lack of access to information. Those who were not giving colostrum chose honey, sugar water and animal milk instead. Honey and water are commonly used as prelacteal feeding in India.^{16,18} Our study revealed that, breastfeeding was initiated within the first hour of birth among 73.29% of mothers, which is consistent with the findings of other studies.^{1,7,16} Only 53.26% mothers practice exclusive breastfeeding (EBF) in our observation, which was unsatisfactory. Because the finding is much less than that was reported in the Bangladesh Demographic Health Survey (BDHS) 2017-18.²⁰ However, almost similar results were found in other studies done in the country.^{1,17,21} Difficulties faced by the mothers for EBF were insufficient secretion of breast milk, absence of knowledge and mother's illness. Similar reasons were reported by several studies in India and Bangladesh.^{15,21} Complementary feeding needs to be started after six months of age, as we found in 81.63% cases. had started it at the correct time.

Similar observations were reported in two studies done in Nepal.^{22,23} The initiation of complementary feeding seems satisfactory. Our finding was more than that of Bangladesh Demographic Health Survey (BDHS), 2017-18.²⁰ 51.91% of the respondents chose Khichuri (a combination of rice, lentils and vegetables) as complimentary food, followed by Suji (34.89%) and fruit juice (13.19%). Similar findings were reported in another study done in Bangladesh.¹⁷ Regarding the frequency of complementary feeding, most of the mothers gave ≤ 3 times a day, which similar to studies conducted in Nepal, where mothers gave complementary feeding 3 times in a day.^{22,23} From our experience, less proportion of colostrum feeding practice, improper initiation of breast milk, and low level of EBF practice seem common among the mothers. This represents the untowardness of the societies of the South Asia region.²⁴

Conclusion

Bangladesh is one of the resource-poor, developing countries of the world. Growth faltering and nutritional problems are common in infant and young children in low- and middle-income countries (LMICs) like Bangladesh. Limited access of information, lack of awareness and knowledge and poor socio-economic conditions affect the practice of Infant and young child feeding (IYCF). Overall status of the infant and young child feeding was not optimum as compared to other evidence and reference data. The results of giving colostrum within the first hour of birth were found inadequate. Colostrum feeding practice needs to be more, as it is the first immunization of child. Breastfeeding initiation also needs improvement because of its protective

effect of natural birth spacing in Bangladesh. The rate of exclusive breast feeding was also unsatisfactory. Though most of the respondents started complementary food in correct time, the types of food and frequency of feeding were not optimum. However, due to small sample size and confining to a small region of the country, our study will not represent the actual level of practice regarding infant and young child feeding (IYCF) among rural populations of the whole country, i.e., the results might not be generalized. Further investigations should be carried out with larger samples in different zones for better clarification and to target the appropriate interventions.

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