Breastfeeding Practices among Mothers Attending Two Private Hospitals in Rural Chattogram of Bangladesh

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Abstract

Background: World Health Organization (WHO) suggests that Exclusive Breast Feeding (EBF) is the best nutrition for infants. Still, globally, breast feeding rates remain lower than required to protect women's and children's health. The study aimed to determine the level of knowledge and practices on EBF and complementary feeding among mothers in the rural area of Chattogram District, Bangladesh.

Materials and methods: This descriptive cross-sectional study was conducted in two rural private hospital Outpatient Departments in Lohagara, Chattogram, Bangladesh, during the COVID-19 pandemic from July 2021 to December 2021. Two hundred and forty mothers with children of age 6 to 24 months selected by purposive sampling were interviewed using a questionnaire to elicit information on infant breastfeeding practices and their associated factors.

Results: One hundred eighty (75%) mothers knew about breastfeeding initiation soon after birth, and 192 (80%) were knowledgeable about EBF for six months, but 69.6% and 65%, respectively, initiated breastfeeding just after birth and practiced EBF. One hundred forty-nine (62.1%) mothers knew the proper age forstarting complementary feeding, but only 135 (56.3%) mothers practiced it. 84 (35%) mothers did early initiation of complementary feeding while 21 (8.8%) mothers delayed it beyond six months.

Conclusions: Though the mothers were knowledgeable regarding various aspects of EBF and complementary feeding, there was a practice gap among mothers.

Key words: Complementary feeding; Exclusive breastfeeding; Knowledge; Practice.

Introduction

Advocacy for EBF is one of the most important health interventions for infants and mothers in low-income settings.[1] Despite breastfeeding promotion efforts, it is a significant proportion of disability-adjusted life years were attributable to suboptimal breastfeeding, making it an important cause of human morbidity among 87 measured risk factors in 204 countries and territories, 1990–2019.[2] The World Health Organization (WHO) defines EBF as an infant receiving "only breastmilk. No other liquids or solids are given-not even water-except for oral rehydration solution or drops/syrups of vitamins, minerals, or medicines".[3]

Globally, breastfeeding rates remain lower than what is required to protect the health of women and children. In 2013–2018, 43% of newborns-initiated breastfeeding within one hour of birth. Only 41% of infants under six months of age are exclusively breastfed. While 70% of women continue to breastfeed their infant for at least one-year, breastfeeding rates decline by two years of age to 45%. The Collective targets for these global rates in 2030 are 70% for initiation in the first hour, 70% for exclusive breastfeeding, 80% at one year, and 60% at two years. Therefore, the countries' efforts toward meeting the target breastfeeding rates must be amplified.[4]

According to the Bangladesh Demographic and Health Surveys (BDHS) report, the prevalence of EBF was 64% in the BDHS report in 2011, which declined to 55% in the report of BDHS in 2014 and further declined to 35.9% in a country-based cross-sectional study in 2019.[5-7] In the present study, an attempt has been made to find out the breastfeeding practices among mothers in a rural area in Chattogram, Bangladesh. This information will hopefully be a part of larger statistics comprising other studies on this subject and ultimately help the concerned authority to develop feasible plans to promote EBF in the community and improve the health status of children below two years in Bangladesh.

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Materials and methods

This cross-sectional study was conducted at the Outpatient Department of two rural private hospitals in Lohagara, Chattogram, Bangladesh, from July 2021 to December 2021. Ethical clearance was obtained from the Ethical and Review Committee of Chittagong Medical College. The study subjects were informed clearly about the importance of the study, and written consent was obtained. They have the right to refuse and withdraw from participating in the research without any explanation, and they have the right to ask any question at any time. In addition, the name of the study subjects was not included in the questionnaires, which would address the concern of the study subject.

A totalof 240 mothers who were permanent inhabitants of the study place, having infants aged 6-24 months interviewed and included consecutively. Sick children requiring emergency care, irritable children, and mothers who were unwilling to participate were excluded from the study. Pretested structured questionnaires were used for data collection, which included sociodemographic questionnaires (Age, religion, educational status, occupation, parity of mother, and age, and sex of child) breastfeeding and complementary feeding practices and the reason behind not exclusively breastfeeding the child.

After checking the completeness and appropriateness, the data were entered and coded into SPSS version 23.0 statistical package software for analysis. The result was presented in the form of frequencies and percentages using tables, charts and text.

Results

A total of 240 mothers were included in the study. Most (55%) were in the age group of 21-25 years. Most had education up to SSC or higher (62.1%). Only a few mothers (17.5%) were employed outside the home, and 58.3% of them lived in a nuclear family. Most participants (51.7%) had a monthly family income of 20,000-50,000 Taka (Table I). More than three fourth (77.1%) of the mothers had institutional deliveries. Likewise, the study's maximum number of babies (75.8%) were aged 13-24 months. There were 137 (57.1%) male babies and 103 (42.9%) female babies.

Table I Socio-demographic characteristics of included mothers and their children (n=240)

Characteristics	Frequency	Percentage
Maternal age at birth, years		
<18 years	10	4.2
18-20 Years	29	12.1
21-25 Years	132	55.0
26-30 Years	48	20.0
31-35 Years	17	7.1
>35 Years	4	1.7
Religion		
Muslim	225	93.8
Non-Muslim	15	6.3
Maternal occupation		
Housemaker	198	82.5
Work outside	42	17.5
Maternal education		
Illiterate	36	15.0
Primary	55	22.9
SSC & higher	149	62.1
Family type		
Single	140	58.3
Joint	100	41.7
Monthly family income		
<20,000 Tk	54	22.5
20,000-50,000 Tk	124	51.7
>50,000 Tk	62	25.8
Child's age		
6-12 months	58	24.2
13-24 months	182	75.8
Child's Gender		
Male	137	57.1
Female	103	42.9
Place of delivery		
Home	55	22.9
Hospital	185	77.1
Mode of delivery		
Normal/vaginal	173	72.1
Caesarian section	67	27.9
Child's birth order		
First	118	49.2
Second or higher	122	50.8

The time of starting breastfeeding among the 240 respondents who breastfed their children ranges from 0 days to 7 days after birth. Among them, almost three-fourths (69.6%) initiated breastfeeding just after birth, while another one-fourth (21.7%) initiated it within 6 hours. Only 9.7% of them started breastfeeding 6 hours after birth. More than 90% of the respondents reported giving colostrum to their baby, while about one-fourth reported giving pre-lacteal food to their baby. The study showed that 35% of the 240 respondents who breastfed their baby did not breastfeed exclusively but gave additional food during the first six months, while 65% (156) practised EBF (Table II).

Table II Practice-related breastfeedingfor up to six completed months by the included mother

	Frequency	Percentage (%)
Initiation of breastfeeding		
Within the first hour	167	69.6
Within 1-6 hours	52	21.7
After 6 hours	23	9.7
Colostrum given	220	91.7
Pre-lacteal feeding given	58	24.2
Duration of exclusive breastfeeding		
1-2 months	24	10.0
3-4 months	46	19.2
5-6 months	14	5.8
Up to 6 completed months	156	65.0
Frequency of breastfeeding		
On-demand	153	63.8
At regular interval	87	36.2
Feeding practice among non-EBF		
Breast milk & Infant formula (n=84)	66	78.6
Only formula milk	11	13.1
Breast milk & cows' milk	2	2.4
Breast milk & semisolid food	5	6.0

The respondents who gave additional food to their children during the first six months stated several reasons, 64.3% gave other food because of their assumption that enough milk was not being produced, 10.7% gave of the influence of family elders, 2.4% were working mothers, 8.3% gave because of mother's sickness and 4.8% mothers did not know about the exact duration of EBF (Figure 1).

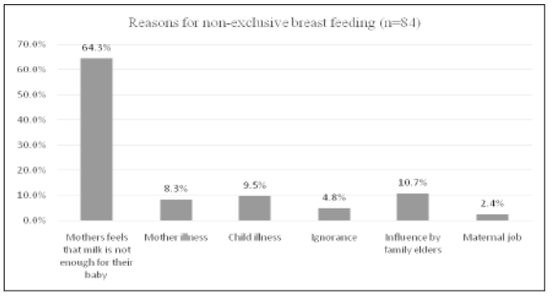

Figure 1 Reasons for giving food other than breast milk for up to six completed months by the mother not exclusively breastfeeding their children (n=84)

Timely initiation of complementary food at six completed months of age was practiced by only 135 (56.3%) mothers. Eighty-four (35%) mothers introduced complementary food earlier than six months, while 21 (8.8%) started complementary feeding after six months. More than half of the mothers gave familial food and 57.9% of the mother planned to continue breastfeeding along with complementary feeding for at least 24 months.

Table III Practices on complementary feeding among mothers' who exclusively fed their children (n=240)

	Frequency	Percentage (%)
Initiation of complementary feeding		
Before six months	84	35.0
Onthe 6th completed months	135	56.3
After six months	21	8.8
Types of first complementary food		
Familial food	130	54.2
Commercial weaning food	110	45.8
The practice of responsive feeding		
Yes	160	66.7
No	80	33.3
Continued or planned to continue BF with CF		
For <12 months age	56	23.3
For 12-18 months	40	16.7
For 19-24 months	139	57.9
For >24 months	5	2.1

Two questions showed the importance of EBF, including "the importance of breastfeeding" and "breast milk alone is important for the baby in the first six months", the right answer percentage is 87.1% and 72.1%, respectively. For the duration questions, "early initiation, breastfed on-demand, colostrum fed immediately, know about EBF and the right time to start complimentary food", the right answer percentage is 75.0%, 75.8%, 87.1%, 80.0%, 84.4 and 62.1%, respectively. In addition, EBF protects mothers from pregnancy and duration for the continuation of breast feeding and complementary feeding, the right answer percentage is 29.2% and 80.0%, respectively (Table II).

Table IV Knowledge of included mothers towards exclusive breastfeeding, private hospital, Lohagara, Chattogram, Bangladesh, 2021 (= 204)

Respondents correctly know	Frequency	Percentage (%)
What EBF is	192	80.0
The right time to give BM to a child after birth	180	75.0
Importance of colostrum	170	70.8
Duration of EBF	149	62.1
The right time to initiate CF	149	62.1
Duration for the continuation of breastfeeding along with complementary feeding	192	80.0
Importance of breast milk	209	87.1
Breast milk alone is important for the baby in the first six months	173	72.1
Demand feeding	182	75.8
EBF protects mothers from pregnancy	70	29.2

Discussion

In the present study, 69.6% of newborns initiate breastfeeding within one hour of birth. Sixty-fiveper cent of infants were exclusively breastfed. Timely initiation of complementary food at six completed months of age was practiced by 56.3% of the mothers. About 58% of the mothers planned to continue breastfeeding and complementary feeding for at least 24 months. The Collective targets for these global rates in 2030 are 70% for initiation in the first hour, 70% for exclusive breastfeeding, 80% at one year, and 60% at two years.[4]

In our study, most participants (54%) were 21-25 years old and had educational levels up to secondary or higher (62.1%). Previously, the mother's education is directly related to her child-raising activities, including feeding practices.[8,9] The entire study group was from rural areas; most of the participants in our study were housemakers (78%) and belonged to a nuclear family (64%). Previous studies have found that urban mothers have more access to accurate information on child feeding but less time to implement them. In contrast, rural women have more time to recognise the children's appetite cues but have minimal access to proper feeding information.[10] More than half (51.7%) of participants had a monthly family income of 20,000-50,000 Taka. Bangladesh government has taken many initiatives for delivery at health facilities, 77.1% of our study respondents had delivered at institutions.[11] If institutional delivery could be ensured, expert healthcare workers would provide proper EBF and complementary feeding counselling.[12]

In this study, we observed that the overall prevalence of EBF practice among rural mothers was 65%. The rate of EBF practice was higher in this study than in the BDHS report 2016,which showed an overall EBF rate of 55% in Bangladesh. In another population from Kaliakair Upazila under the district of Gajipur, 55.6% practised exclusive breastfeeding.[13] EBF was found in 50% of children in a private hospital-based study from Dhaka.[14] However, the prevalence of EBF was found to be lower in other studies like 35.9% by Hossain et al, 21% by Mollah et al and 31% in the study of Akhtaruzzaman et al.[7,15,16] The variations persisting in EBF rate in different regions might be due to cultural, economic and socio-demographic differences across areas. The other possible reasons for the variation in EBF practice found in different studies may be the different methods used for measuring EBF. In this study, the recall method was used for assessing EBF. According to this study, 56.3% of mothers reported CF initiation at six months. Almost similar results were found in studies done in and around our country.[17-19]

The results of this study indicate that mothers with a high level of knowledge about the importance of EBF know that only breast milk is nutritionally important for the baby in the first six months. The right time to give breast milk to the child within one hour after birth, breastfed on-demand, colostrum fed immediately, know about EBF and the right time to start complimentary food. The results indicate that even though their knowledge is better than practice, the strong cultural factors and beliefs affect their practices.

Limitation

This study has several potential limitations. Since it is difficult to generalize the result to the source population, this study shares the rules of the non-probability sampling technique. Information was taken from mothers on a recall basis, which may have resulted in bias, as the recall information may not be accurate. Despite the above shortcomings, the findings of this study will contribute to understanding and identifying the factors associated with EBF practice in rural Bangladesh.

Conclusion

Around 65% of the children in Bangladesh exclusively breastfeed for up to six months, and around 44% of mothers in the study area do not require timely initiate complementary feeding. The mothers who gave additional food (Before six months of age) cited lack of knowledge and perceived inadequate breast milk production as the main reason. Though most of the mothers had good knowledge of EBF, there was a gap in practice among mothers regarding EBF, appropriate time of initiation of breastfeeding, and adequate age of initiation of complementary feeding.

Recommendation

A large-scale, in-depth study is essential to find out the breastfeeding practices of women inthe rural area throughout the country so that appropriate health education programs can be arranged to make aware people of the importance of exclusive breastfeeding administration of colostrum and complementary feeding.

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Contribution of authors

MSA-Conception, acquisition data, drafting & final approval.
KN-Acquisition of data, data analysis, critical revision & final approval.
MJBAC-Interpretation of data, critical revision & final approval.
AKD-Acquisition of data, drafting & final approval.
DC-Data analysis, critical revision & final approval.
DB-Interpretation of data, drafting & final approval.

Disclosure

All the authors declared no conflicting interest.

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