Original Article

DOI: https://doi.org/10.47648/jswmc2022v12-02-54

Factors Influencing the Practices of Exclusive Breastfeeding in a Hospital Setting.

Rahman F[1], Nurunnabi M[2], Mostarin S[3], Pinki SS[4], Nahar K[5], Haque A[6], Jahan K[7], *Abbas MG[8]

Abstract:

Background: Breast milk is a most precious natural gift for a newborn and continues to be the optimal form of diet after birth. The practice of exclusive breastfeeding (EBF) is still poor in Bangladesh despite the associated benefits.

Methods: A hospital-based cross-sectional study was done to determine the factors influencing the practice of EBF among the 107 lactating mothers in a hospital setting.

Results: More than half of the hospital admitted children (56.1%) were in ≤6 months and two-thirds (65.4%) were 1st children of their parents. 44.9% of mothers and 29.0% of fathers of children had no formal education. One-third of the mothers attending breast feeding counseling programs (34.6%), and also get support and care during their lactation period(33.6%). Two-fifths of mothers (40.2%) had sound knowledge about EBF duration and less than one-third (29.9%) were fed EBF expediently.EBF practices among the mothers are statistically significant association with received counseling on breastfeeding, proper attachment during breastfeeding, pre-lacteal foods given after delivery, type of complementary foods, appliances used for complementary feeding, and support and care during the lactation period ($p<0.05$). The association of knowledge about EBF duration is also statistically significant with counseling on breastfeeding ($p<0.05$).

Conclusion: Lactating mothers have to face various challenges, as they are trying to practice EBF for the first 6 months of a newborn. It's indeed scaling up EBF practices that require intensive efforts at all levels including family and community levels.

Keywords: Factors, Exclusive breastfeeding, lactating mother, Bangladesh.

JSWMC 2022 [12(02)] P: 67-73

Introduction

The breastfeeding experience is a natural event and divine to a mother in her reproductive life.

1. Farhana Rahman, Senior Program Assistant (Ex), GAIN BD, Gulshan, Dhaka 1212, Bangladesh.
2. Mohammad Nurunnabi, Assistant Professor, Department of Community Medicine, Sylhet Women's Medical College, Sylhet 3100, Bangladesh.
3. Somaya Mostarin, MPH Fellow, Department of Health Education, National Institute of Preventive and Social Medicine (NIPSOM), Mohakhali, Dhaka 1212, Bangladesh.
4. Sadia Sobhan Pinki, Medical Officer, Mycobacterial Disease Control (MBDC) Directorate General of Health Services (DGHS), Mohakhali, Dhaka 1212, Bangladesh.
5. Kamrun Nahar, Lecturer, Department of Public Health and Hospital Administration, National Institute of Preventive and Social Medicine (NIPSOM), Mohakhali, Dhaka 1212, Bangladesh.
6. Aysha Haque, Assistant Professor (CC), Department of Health Education, National Institute of Preventive and Social Medicine (NIPSOM), Mohakhali, Dhaka 1212, Bangladesh.
7. Khursheed Jahan, Honorary Professor, Institute of Nutrition and Food Science (INFS), University of Dhaka, Dhaka 1000, Bangladesh.
8. Md Golam Abbas, PhD, Assistant Professor, Department of Occupational and Environmental Health (OEH), National Institute of Preventive and Social Medicine (NIPSOM), Mohakhali, Dhaka 1212, Bangladesh.

Corresponding author: Md Golam Abbas, PhD,
Assistant Professor, Department of Occupational and Environmental Health (OEH), National Institute of Preventive and Social Medicine (NIPSOM), Mohakhali, Dhaka 1212, Bangladesh.
Email: abbasgolam@yahoo.com.

To establish and maintain proper breastfeeding practices mothers and caregivers require active participation at the individual level.[1]Globally, about 40% of infants aged below 6 months are exclusively breastfeeding. Breastfed along with complementary feeding after six months of age can prevent malnutrition and save approximately a million childrenlives.[2] Infants who had not

been breastfed properly, are at a higher risk of developing morbidities and mortalities in childhood. Every year globally, about1.5 million infant deaths can be avoided through exclusive breastfeeding in the first six months of their lives.[3]

Malnutrition is more common in non-breastfed children and the consequence affecting health, nutrition and livelihood.[4]The infancy and childhood periods are crucial for rapid growth with the high demand for all essential nutrients. Childhood malnutrition is strongly related to the impairing growth and development of individuals, and impeding economic growth as well as national development.[5]

Despite the scientific basis of the benefits, many mothers continue EBF at the recommended first six months along with commercial infant substitutes.[6]There are numerous reasons to discontinue breastfeeding such as insufficient milk production, mother's chronic illness, socio-cultural taboo etc. Identifying and evacuating potential barriers to EBF practices will be improved the nutritional status, physical and psychological growth and development of the newborn.

Methods

Study design and setting

This hospital-based cross-sectional study that was conducted to determine the factors influencing the practice of EBF in a purposively selected hospital setting, named the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR, B).

Sample selection

Mothers having children less than 2 years and children admitted in the selected hospital with mild to moderate symptoms of diarrhoeal diseases. For calculation of sample size in this study, the prevalence of EBF (64.0%) was taken from Bangladesh Demographic and Health (BDHS) survey.[7]

Data collection and analysis

A total of 107 mothers were interviewed according to the convenience of the interviewer through a pre-tested semi-structured questionnaire. The method of data collection was the face-to-face interview of each mother after explaining the objectives and probable outcome of the study. The questionnaire consisted of three parts: socio-demographic profiles, factors related to the gestational period, and child feeding practices. The questionnaire was checked and cleaned after completion of data collection each day and coded before entering into the SPSS v19 software. Both descriptive and inferential statistics were carried out and presented in tables and charts.

Ethical consideration

Informed written consent was taken from each mother and ethical approval was obtained from the ethical committee of ICDDR, B, Mohakhali, Dhaka 1212, Bangladesh.

Results

The interviewed mothers were informed of the factors related to the practice of EBF. Table 1 describes the socio-demographic profile of the child's mother. More than half of the hospital admitted children (56.1% and 57.9%) were ≤6 months and female respectively. Two-thirds of them (65.4%) were 1st children of their parents. Three out of five mothers (61.7%) came from ≤20years which represent teen pregnancy. At a glance, 44.9% of mothers and 29.0% of fathers of children had no formal education; and the majority was homemakers (83.2%) and day laborers (47.7%) respectively. The majority of the mothers (79.4%) came from low-income families and only less than one-tenth (8.4%) could spend more than 2,500 taka on purchasing baby foods.

Table 2 demonstrates factors related to the gestational period and child feeding practices. Three-fifths of the mothers (75.7%) received antenatal checkup and among them, the majority (85.2%) had completed their complete schedule of antenatal visits. Three out of five mothers took IFA tablets regularly. Regarding the birth outcome of the mothers, four-fifths of deliveries (81.3%) were conducted through normal vaginal delivery in term (78.5%). Half of the newborns (46.7%) birth weight in 1st hour of life was less than 2.5kg, which was considered a low birth weight (LBW).

Table 1: Socio-demographic profile of the child's mother (n=107)

Traits		n(%)
Child's age (in months)	≤6	60(56.1)
	>6	47(43.9)
Child's sex	Male	45(42.1)
	Female	62(57.9)
Birth order of last child	1	70(65.4)
	2-4	37(34.6)
Mother's age (in years)	≤20	66(61.7)
	>20	41(38.3)
Mother's highest education	No formal education	48(44.9)
	Primary	32(29.9)
	Secondary and above	27(25.2)
Father's highest education	No formal education	31(29.0)
	Primary	35(32.7)
	Secondary and above	41(38.3)
Mother's profession	Homemaker	89(83.2)
	Garment worker	15(14.0)
	Home maid	3(2.8)
Father's profession	Day laborer	51(47.7)
	Agricultural worker	15(14.0)
	Driver	16(15.0)
	Others (service holder, businessman etc.)	25(23.3)
Monthly average household income (in taka)	≤12,000	85(79.4)
	>12,000	22(20.6)
Monthly average costs on baby foods (in taka)	≤2,500	98(91.6)
	>2,500	9(8.4)

The majority of the households (84.1%) were visited by healthcare providers and only one-third of the mothers (34.6%) were attending breastfeeding counseling programs. Two-fifths of mothers (40.2%) had sound knowledge about EBF duration and less than one-third (29.9%) were fed EBF expediently. Almost cent percent were fed their child colostrum, but two-thirds of mothers (66.4%) were fed any sort of pre-lacteal foods after birth. One-third of the mothers (35.5%) were practicing proper position during fed their child. More than two-thirds of the mothers (70.1%) were cessation EBF due to insufficient milk production (78.7%), workload (12.0%) and family influences (9.3%).

Figure 1 illuminates that about two-thirds of the mothers (63.3%) were used formula food as a complementary food and feeder (64.5%) as a common appliance. Only one-third of lactating mothers (33.6%) get support and care during their lactation period. Figure 2 portrays the commonly manifested morbidities were acute respiratory infections (87.9%) and diarrhoeal diseases (77.6%).

Table 2: Factors related to the gestational period and child feeding practices (n=107)

		n (%)
Factors related to the gestational period		
Received antenatal check-up	Yes	81(75.7)
	No	26(24.3
Number of antenatal visits (n=81)	≥4 times	69(85.2)
	<4 times	12(14.8)
Iron and Folic acid (IFA) tablets intake	Yes	65(60.7)
	No	42(39.3)
Birth outcome	Normal vaginal delivery	87(81.3)
	Cesarean section	20(18.7)
Term of baby	Pre-term (<37 weeks)	16(15.0)
	Term (37-42 weeks)	84(78.5)
	Post-term (>42 weeks)	7(6.5)
Birth weight in 1st hour of life	<2.5 kg	50(46.7)
	≥2.5kg	45(42.1)
	Didn't measured	12(11.2)
Factors related to child feeding		
Healthcare providers visited household during gestational and lactation period	Yes	90(84.1)
	No	17(15.9)
Counseling on breastfeeding	Received	37(34.6)
	Didn't receive	70(65.4)
Knowledge about EBF duration	Yes	43(40.2)
	No	64(59.8)
EBF practices among the mothers	Yes	32(29.9)
	No	75(70.1)
Colostrum's feeding status	Yes	106(99.0)
	No	1(1.0)
Pre-lacteal foods given after delivery	Yes	71(66.4)
	No	36(33.6)
Attachment during breastfeeding	Proper positioning	38(35.5)
	Inappropriate positioning	69(64.5)
Early cessation of EBF	Yes	75(70.1)
	No	32(29.9)
Type of complementary foods	Infant formula	68(63.6)
	Family foods	39(36.4)
Appliances used for complementary feeding	Feeder	69(64.5)
	Spoon	38(35.5)
Support and care of mother's during the lactation period	Received properly	36(33.6)
	Didn't receive properly	71(66.4)

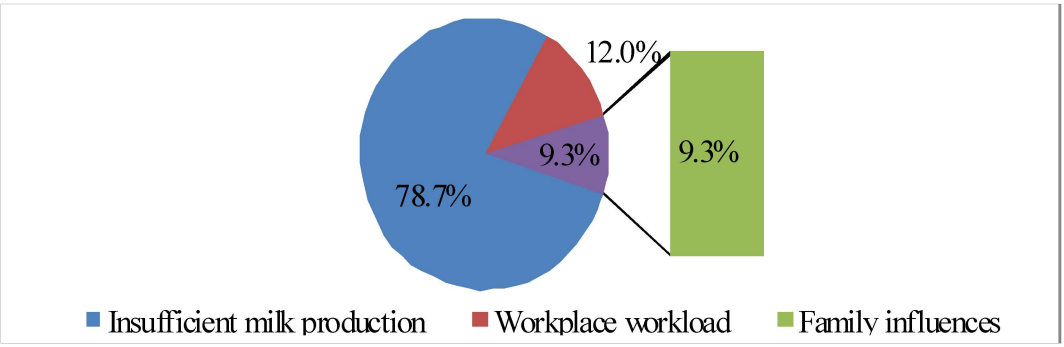

Figure 1: Reasons of early cessation of EBF (n=75)

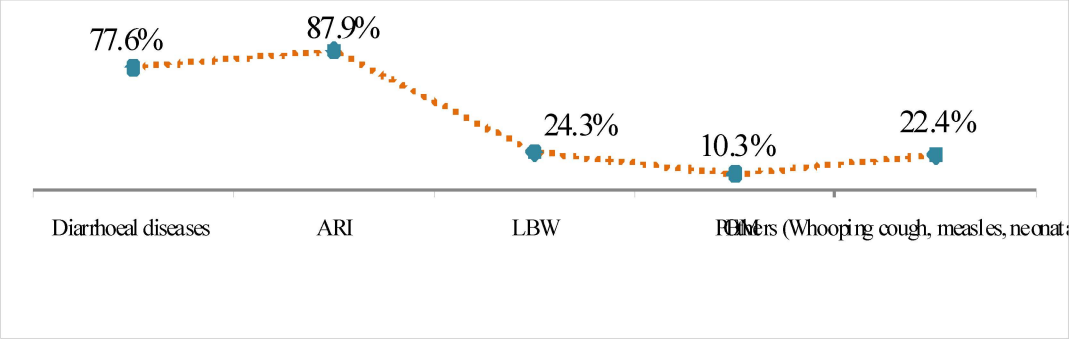

Figure 2: Child's morbidities manifested within last 6 months

Table 3 interprets EBF practices among the mothers are statistically significant association with received counseling on breastfeeding, proper attachment during breastfeeding, pre-lacteal foods given after delivery, type of complementary foods, appliances used for complementary feeding, and support and care during the lactation period. The association of knowledge about EBF duration is also statistically significant with counseling on breastfeeding

Table 3: Association of different factors related to knowledge and practices regarding EBF and child feeding among the mothers

Association of EBF practices among the mother with factors related to child feeding				
Factors related to child feeding	**EBF practices among the mothers**			**p-value**
	Yes	**No**	**Total**	
	n(%)	n(%)	n(%)	
Counseling on breastfeeding				
Received	30(28.0)	7(6.5)	43(40.2)	*0.011
Didn't receive	2(1.9)	68(63.6)	64(59.8)	
Attachment during breastfeeding				
Proper positioning	31(29.0)	7(6.5)	38(35.5)	*0.020
Inappropriate positioning	1(0.9)	68(63.6)	69(64.5)	
Pre-lacteal foods given after delivery				
Yes	2(1.9)	69(64.5)	71(66.4)	*0.001
No	30(28.0)	6(5.6)	36(33.6)	
Type of complementary foods				
Infant formula	1(0.9)	67(62.6)	68(63.6)	*0.007
Family foods	31(29.0)	8(7.5)	39(36.4)	
Appliances used for complementary feeding				
Feeder	1(0.9)	68(63.6)	69(64.5)	*0.043
Spoon	31(29.0)	7(6.5)	38(35.5)	
Support and care of mother's during the lactation period				
Received properly	30 (28.0%)	6 (5.6%)	36(33.6)	*0.031
Didn't receive properly	2 (1.9%)	69 (64.5%)	71(66.4)	
Association of knowledge about EBF duration with counseling on breastfeeding				
	Knowledge about EBF duration			
	Yes	**No**	**Total**	
Counseling on breastfeeding				
Yes	31(29.0)	12(11.2)	43(40.2)	*0.003
No	1(0.9)	63(58.3)	64(59.8)	

*Statistically significant value

Discussion

This study discovered several factors influencing exclusive breastfeeding among the lactating mothers. More than half of the hospital admitted children (56.1% and 57.9%) were ≤6 months and female respectively. Two-thirds of them (65.4%) were 1st children of their parents. In case of 1st child, parent's had no experiences about breastfeeding. Three out of five mothers (61.7%) came from ≤20 years which represent teen pregnancy. Teen pregnancy is an important factor which influences the knowledge about EBF and complementary feeding. At a glance, 44.9% of mothers and 29.0% of fathers of children had no formal education and as a profession, majorities were homemakers (83.2%) and day laborers (47.7%) respectively. The majority of the mothers (79.4%) came from low-income families and only less than one-tenth (8.4%) can spend more than 2,500 taka on purchasing baby foods. Most of the families' educational, occupational state and family incomes were inadequate in contrast national figure in both urban and rural settings. In a study in Indian, the vast bulk (99.1%) was homemakers, and only a quarter of the females had three or more antenatal visits during pregnancy. One-quarter of the mothers began complementary feeding before their child was six months old. Majority of these women (69.9%) did not receive child feeding advice.[6]

In another study, it is revealed that EBF rate in the studied population was 49.7%. Factor influences the practice of EBF were identified as early marriage of parents, less educated parents, working mother, fewer antenatal visits, operative delivery, late initiation of breastfeeding, not feeding colostrum, lack of knowledge about EBF, and poor counseling of mother regarding EBF which is quite similar to this study.[8]There 4.5% mothers were having inadequate knowledge regarding the duration of exclusive breast feeding to their infants showed by a study in Jammu, India whereas in another study 38% mothers were unaware of duration of EBF.[9-10]According to a study conducted in Egypt, 42.7 percent of the mothers studied provided pre-lacteal feeds to their babies prior to lactation. Approximately three-quarters (74.2%) of babies were given colostrums.[11]

EBF practices among the mothers are statistically significant association with received counseling on breastfeeding, proper attachment during breastfeeding, pre-lacteal foods given after delivery, type of complementary foods, appliances used for complementary feeding, and support and care during the lactation period ($p<0.05$). The association of knowledge about EBF duration is also statistically significant with counseling on breastfeeding ($p<0.05$). Mother's education, high socioeconomic status, history of antenatal care registration, and hospital delivery with exclusive breastfeeding were found to have a significant association in a study of India, which doesn't match with the findings of this study.[12]

Conclusion

The study revealed that improper care during the gestational period, less support about breastfeeding from family members during the lactation period, self-perception about insufficient milk production, education status of the mother, knowledge of mothers about breastfeeding, wrong position attachment, ignorance, superstition and inadequate counseling etc. are the significant potential barriers to establish EBF practices among the lactating mother. To address and mitigates the factors influencing the practice of EBF public health strategies needed to be increased at family and community levels with special attention to the individual level.

Author's contributions: Conceptualization, methods and literature review: Rahman F, Nurunnabi M and Abbas MG; Statistical analysis: Rahman F and Nurunnabi M; Draft of manuscript: Rahman F, Nurunnabi M and Mostarin S; Finalization of manuscript: Rahman F, Nurunnabi M, Mostarin S, Pinki SS, Nahar K, Haque A, Jahan K and Abbas MG. All the authors approved the final manuscript.

Acknowledgment: The authors are thankful to the all mothers participated in this study and hospital authorities for their kind cooperation.

Conflict of interest: The authors declared no conflict of interest.

Funding: This study didn't receive any fund.

References

1. Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS, Bellagio Child Survival Study Group. How many child deaths can we prevent this year? The Lancet. 2003;362(9377):65 71. https://doi.org/10.1016/S0140-6736(03)13811-1
2. 10 facts on breast feeding. [Internet]. World Health Organization (WHO): 2018. Available from: http://www.who.int/features/factfiles/breastfeeding/en/(Cited 2020 February 10)
3. Black RE, Allen LH, Bhutta ZA, Caulfield LE, De Onis M, Ezzati M, Mathers C, Rivera J, Maternal and Child Under nutrition Study Group. Maternal and child under nutrition: global and regional exposures and health consequences. The Lancet. 2008;371(9608):243-60. https://doi.org/10.1016/S0140-6736(07)61690-0
4. Bhandari N, Bahl R, Mazumdar S, Martines J, Black RE, Bhan MK, other members of the Infant Feeding Study Group. Effect of community-based promotion of exclusive breastfeeding on diarrhoeal illness and growth: a cluster randomised controlled trial. The Lancet. 2003;361(9367):1418-23. https://doi.org/10.1016/S0140-6736(03)13134-0
5. Sherriff N, Hall V, Pickin M. Fathers' perspectives on breastfeeding: ideas for intervention. British Journal of Midwifery. 2009;17(4):223-7. https://doi.org/10.12968/bjom.2009.17.4.41670
6. Mahmood SE, Srivastava A, Shrotriya VP, Mishra P. Infant feeding practices in the rural population of north India. Journal of Family and Community Medicine. 2012;19(2):130-5. https://doi.org/10.4103/2230-8229.98305
7. Bangladesh Demographic and Health (BDHS) survey 2011. [Internet]. National Institute of Population Research and Training (NIPORT): 2013. Available from: https://dhsprogram.com/pubs/pdf/fr265/fr265.pdf(Cited 2020 February 12)
8. Bhanderi DJ, Pandya YP, Sharma DB. Barriers to exclusive breastfeeding in rural community of central Gujarat, India. Journal of Family Medicine and Primary Care. 2019;8(1):54. https://doi.org/10.4103/jfmpc.jfmpc_329_18
9. Bala K, Sahni B, Bavoria S, Narangyal A. Knowledge, attitude, and breast-feeding practices of postnatal mothers in Jammu: A community hospital based cross sectional study. Journal of Family Medicine and Primary Care. 2020;9(7):3433-7. https://doi.org/10.4103/jfmpc.jfmpc_333_20.
10. Girish S, Ghandhimathi M. Mother's knowledge, attitude and practice of breastfeeding. Journal of Advanced Nursing Science and Practice. 2015;2:41-8
11. Mohammed ES, Ghazawy ER, Hassan EE. Knowledge, attitude, and practices of breastfeeding and weaning among mothers of children up to 2 years old in a rural area in El-Minia Governorate, Egypt. Journal of Family Medicine and Primary Care. 2014;3(2):136-40. https://doi.org/10.4103/2249-4863.137639.
12. Randhawa A, Chaudhary N, Gill BS, Singh A, Garg V, Balgir RS. A population-based cross-sectional study to determine the practices of breastfeeding among the lactating mothers of Patiala city. Journal of Family Medicine and Primary Care. 2019;8(10):3207-13. https://doi.org/10.4103/jfmpc.jfmpc_549_19