

## A Study on Exclusive Breastfeeding Practice and Associated Factors among Mothers Admitted to a Tertiary Care Hospital

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## Abstract

## Original Research Article

**Introduction:** Breastfeeding provides adequate nutrition for the growth and development of infant. World Health Organization (WHO) recommends exclusive breastfeeding for the first six months of life which should be continued for up to two years. **Aim of the Study:** The study aimed to assess the exclusive breastfeeding practice and related factors among women admitted to tertiary care hospitals in Bangladesh. **Methods:** This was a prospective study done at Bangladesh Shishu (Children) Hospital & Institute, and it's a tertiary care hospital. The duration of the study was from 1<sup>st</sup> February 2021 to 31<sup>st</sup> July 2021. **Result:** Most of the mothers 214(72.8%) were aged more than 25-35 years and most of the infants 97(33%) were aged 3-4 months. Most of the mothers 213(72.4%) were housewife. Normal vaginal delivery was done in 98(29.84%) cases and caesarean section was done in 196(70.16%) cases. Majority of mothers 199(68%) practiced mixed feeding and in 95(32%) cases exclusive breast feeding was practiced. It is found that both exclusive breast feeding 68(23.1%) and mixed feeding 128(43.5%) were high in cesarean section delivery which is statistically significant ( $P < 0.04$ ). More infant was sick in mixed feeding group 199(68%) than exclusive breast feeding 95(32%) group. Majority of the mothers 113(59.2%) believed that they do not have enough milk. 98(33.3%) mothers don't like breastfeed the baby. 76(25.9%) mothers believed that formula is better than breastfeeding and 48(16.3%) mothers had lack of knowledge about exclusive breastfeeding. **Conclusion:** In this present study, the practice of mixed feeding is seemed to be high.

**Keywords:** Exclusive Breastfeeding, Mixed feeding, Associated Factors.

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## INTRODUCTION

Exclusive breastfeeding is defined as a baby may receive only breast milk nothing else not even a drop of water for the first six months of life [1, 2]. The development of the infant's organs and brain is aided by breast milk, which also shields the child from acute and chronic illnesses. The child's long-term health benefits of breastfeeding include a decreased chance of obesity and overweight. In addition to improving cognitive development, exclusive breastfeeding protects children from infections and several chronic disorders. It is regarded as the best method of giving newborns the nutrition they need for optimal growth and development. EBF also stands out as the single most effective intervention for child survival and is at the top of the list of newborn life-saving measures. Additionally, research indicates that a child who is

exclusively breastfed has a 14-fold lower risk of passing away in the first six months than its counterpart [3-5]. EBF also lowers the chance of ovarian and breast cancer in mothers [6]. Millions of infants are not benefiting from this life-saving practice despite the proven advantages of exclusive breastfeeding. Only 39% of children younger than 6 months are exclusively breastfed globally. Several studies demonstrate that the prevalence and duration of EBF in many nations remain below the international recommendations [7-9]. Exclusive breastfeeding has remained mostly unaltered in Bangladesh for decades. In 1993-1994 and 1999-2000, it was about 45%. It then fell to 42% in 2004 and was 43% in 2007 [10-13]. However, a prevalence of 64% was observed in a study conducted by Mitra and Associate in 2011 [14]. According to BDHS, 2014 [15], the closest EBF prevalence was around 55%. Although

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nursing has many advantages for moms and babies alike, breastfeeding rates are still below ideal, particularly in underdeveloped nations like Bangladesh. Therefore, it's crucial to comprehend the practices of exclusive breastfeeding and the factors that contribute to it. The purpose of the study was to evaluate the practice of exclusive breastfeeding and associated factors among women admitted to this hospital.

## METHODOLOGY & MATERIALS

This was a prospective study done at Dhaka Shishu (Children) Hospital & Institute, and it's a tertiary care hospital. The duration of the study was from 1<sup>st</sup> February 2021 to 31<sup>st</sup> July 2021.

### Inclusion Criteria

- Women under the age of 45 with a child up to six months of age who were admitted in the hospital.
- Both exclusive breastfed and mixed-fed babies were included.

### Exclusion Criteria

- Babies more than six months were excluded.
- Women who couldn't breastfeed due to medical conditions.

Data was collected using a semi-structured questionnaire by face-to-face interview method. The questionnaire included information about the socio-demographic profile, medical history and practice of breastfeeding, complementary feeding, and information about maternity-related facilities and paid maternity leave. Exclusive breastfeeding was defined as the feeding of only mother's milk not even a drop of water. Pre-lacteal feeding was defined as giving honey, misri water, mastered oil etc. before giving breast milk to the newborn and which has been traditionally followed. Mixed feeding was defined as feeding of formula milk along with breast milk. Complementary feeding was defined as any solid or semi-solid food given to the infant irrespective of breastfeeding practice. It should be given after completion of six months. All data were presented in a suitable table or graph according to their affinity. A description of each table and graph was given to understand them clearly. All statistical analysis was performed using the statistical package for social science (SPSS) program version 21 and Windows. Continuous parameters were expressed as mean  $\pm$ SD and categorical parameters as frequency and percentage. Ethical approval was taken from the Institutional Review Committee of at the Bangladesh Shishu Hospital & Institute.

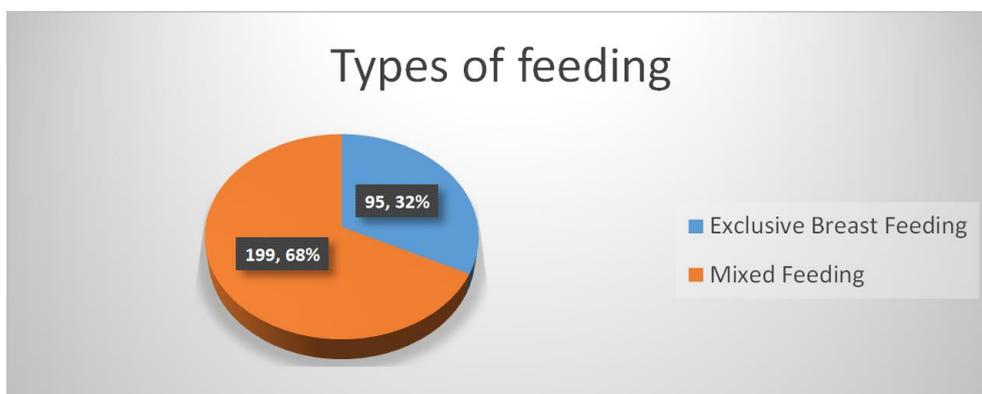
## RESULT

**Table-I: Socio-demographic profile of study population**

Variables	Frequency	Percentage
<b>Age of mother</b>		
<25 years	47	16.0
25-35 years	214	72.8
35-45 years	33	11.2
<b>Age of babies</b>		
<1 months	51	17.3
1-2months	57	19.4
3-4 months	97	33.0
5-6 months	89	30.3
<b>Gender of babies</b>		
Male	148	50.3
Female	146	49.7
<b>Education of mother</b>		
Illiterate	118	40.1
Primary	81	27.6
Secondary	60	20.4
Graduate	35	11.9
<b>Socio-economic status of family</b>		
Lower	153	52.0
Middle	98	33.3
Upper	43	14.6
<b>Mothers occupation</b>		
Housewife	213	72.4
Job holder	81	27.6
<b>Type of delivery</b>		
Normal vaginal delivery	98	29.84
Cesarean section	196	70.16

Table I shows the socio-demographic profile of the study population. Most of the mothers 214(72.8%) were aged more than 25-35 years and most of the infants 97(33%) were aged 3-4 months. 148(50.3%) infants were male. Majority of mothers

118(40.1%) were illiterate. Highest number of families 153(52%) had lower income. Most of the mothers 213(72.4%) were housewife. Normal vaginal delivery was done in 98(29.84%) cases and caesarean section was done in 196(70.16%) cases.



**Figure I: Types of feeding**

Figure I show the types of feeding. Majority of mothers 199(68%) practiced mixed feeding and in 95(32%) cases exclusive breast feeding was practiced.

**Table II: Showing the relation between mother’s education and types of feeding**

Mother's Education	Exclusive Breast Feeding		Mixed feeding		P-value
	N	Percentage (%)	N	Percentage (%)	
Illiterate	43	14.6	75	25.5	P < 0.002
Primary	28	9.5	53	18.0	
Secondary	18	6.1	42	14.3	
Graduate	6	2.0	29	9.9	

Table II showing the relation between mother’s education and types of feeding. It was noticed that majority of the mothers were illiterate in both

exclusive breast feeding 43(14.6%) and mixed feeding 75(25.5%) group which is statistically significant (P < 0.002).

**Table III: Relationship between mode of delivery and types of feeding**

Mode of Delivery	Exclusive Breast Feeding		Mixed Feeding		P-value
	N	Percentage (%)	N	Percentage (%)	
Normal vaginal delivery	27	9.2	71	24.1	P < 0.04
Cesarean section	68	23.1	128	43.5	

Table III shows the relationship between mode of delivery and types of feeding. It is found that both exclusive breast feeding 68(23.1%) and mixed feeding 128(43.5%) were high in cesarean section delivery

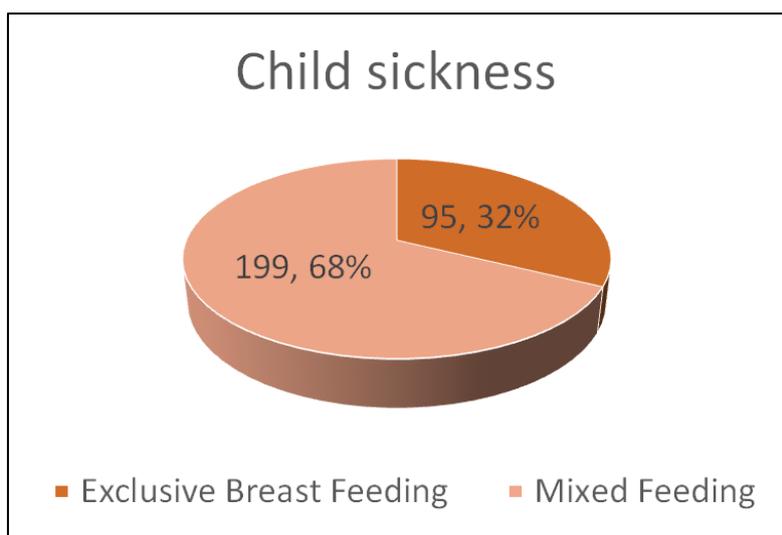
which is statistically significant (P < 0.04). It seems that in cesarean section group the percentage of mixed feeding was high 128(43.5%) than exclusive breast feeding group.

**Table IV: The relationship between breast problem and types of feeding**

Breast problem	Exclusive Breast Feeding		Mixed Feeding		P-value
	N	Percentage (%)	N	Percentage (%)	
Yes	9	3.1	45	15.3	P < 0.15
No	86	29.3	154	52.4	

Table IV shows the relationship between breast problem and types of feeding. Majority of mothers in both exclusive breast feeding 86(29.3%) and

mixed feeding 154(52.4%) did not have any breast problem which is statistically insignificant (P < 0.15).



**Figure II: The relationship between Child sickness and types of feeding**

Figure II shows the relationship between child sickness and type of feeding. More infant was sick in

mixed feeding group 199(68%) than exclusive breast feeding 95(32%) group.

**Table V: Relationship between counseling at ANC and types of feeding**

Mother Receive ANC	Exclusive Breast Feeding		Mixed Breastfeeding		P-value
	N	Percentage (%)	N	Percentage (%)	
Yes	67	22.79	56	19.0	P < 0.03
No	28	9.52	143	48.6	

Table V showing relationship between counseling at ANC and type of feeding. More mothers in exclusive breast feeding group received ANC

67(22.79%) than mixed feeding group 56(19%) which is statistically significant (P < 0.03).

**Table VI: Women's knowledge and attitude towards breastfeeding.**

Attitude of mothers towards Breast feeding	N	Percentage (%)
Not having enough milk	146	49.7
Do not like breast feeding	98	33.3
Thought formula is better	76	25.9
Influences of Families	82	27.9
Having lack of knowledge about exclusive breast feeding	48	16.3

Table VI shows the perception and attitude of mothers. Majority of the mothers 146(49.7%) believed that they do not have enough milk. 98(33.3%) mothers don't like breastfeed the baby. 76(25.9%) mothers believed that formula is better than breastfeeding and 48(16.3%) mothers had lack of knowledge about exclusive breastfeeding.

## DISCUSSION

In this present study, most of the mothers 72.8% were aged more than 25-35 years. Nadine Zablith and Siobhan Reilly in their study found the mean age of the mothers was 13.3±6 years whereas Yasuda *et al.*, found 53.3% mothers were aged 30-40 years [16, 17]. Majority of mothers of this study, 40.1% were illiterate and most of them 72.4% were housewife. Bayew Kelkay *et al.*, found majority of mothers 42.7% were educated up to the college and above and 53.5%

of the mothers were housewife [18]. In this study most of the infants 33% were aged 3-4 months and 50.3% infants were male. The study of F R Chowdhury *et al.*, found the mean age of children in month was 8.64 months' range (7 – 12months) and among them 70% were male and 30% were female [19]. Highest number of families of this study, 35.5% had lower income. In the study of Gedion Asnake Azeze *et al.*, highest number of families 52% had income of ≥2001 Ethiopian Birr [20]. In this present study, normal vaginal delivery was done in 29.84% cases and caesarean section was done in 70.16% cases. Gedion Asnake Azeze *et al.*, in their study found normal vaginal delivery was done in most 84.1% cases [20]. Majority of mothers in our study, 68% practiced mixed feeding and in 32% cases exclusive breast feeding. Jebena DD *et al.*, found 70.4% practiced exclusive breast feeding and mixed feeding was practiced in 45% cases [21]. In this study, it was noticed that majority of

the mothers were illiterate in both exclusive breast feeding 14.6% and mixed feeding 25.5%. This denotes statistically significant relationship between mother's education and types of breast feeding. Cheedarla V *et al.*, in their study found only 6 illiterate mothers had knowledge about exclusive breastfeeding [22]. The present study found that both exclusive breast feeding 23.1% and mixed feeding 43.5% were high in cesarean section delivery which is statistically significant ( $P < 0.04$ ). It seems that in cesarean section group the percentage of mixed feeding was high 43.5% than exclusive breast feeding group. Tewabe *et al.*, in their study reported that in most of the cases 51.8%, normal vaginal delivery was done who also practiced EBF [23]. Majority of mothers of this study in both exclusive breasts feeding 29.3% and mixed feeding 52.4% did not have any breast problem which shows statistically insignificant relationship between breast problem and type of feeding ( $P < 0.15$ ). H. L. O. Catunda *et al.*, in their study reported only 5% mothers to have cracked nipples [24]. Gedion Asnake Azeze also found breast problem in 32.3% cases [20]. In this present study more infant was sick in mixed feeding group 68% than exclusive breast feeding 32% group. Zannat NA *et al.*, also found all the babies were sick [25]. In our study, more mothers in exclusive breast feeding group received ANC 22.79% than mixed feeding group 19% which is statistically significant ( $P < 0.03$ ). Jebena DD *et al.*, found 46.2% mothers received ANC [21]. Majority of the mothers in this study 59.2% believed that they do not have enough milk. 33.3% mothers don't like breastfeed the baby. 25.9% mothers believed that formula is better than breastfeeding and 16.3% mothers had lack of knowledge about exclusive breastfeeding. H. L. O. Catunda *et al.*, reported 10% mothers had little or no milk [24]. Bayew Kelkay *et al.*, in their study reported that 82.6% mothers had good knowledge about breastfeeding but 34.6% mothers believed that formula is better than breastfeeding [18].

### Limitations of the Study

The study was conducted in a single hospital with small sample size. So, the results may not represent the whole community.

## CONCLUSION

In this prospective study, the practice of mixed feeding is seemed to be high due to some associated factors like mother's education, delivery by caesarian section, lack of ANC, false beliefs of mother about not having enough milk. This practice of mixed feeding ultimately results in different sickness of babies.

## RECOMMENDATIONS

In order to increase the exclusive breastfeeding practice, mothers should be more educated and well counselled about caesarian section delivery is not a barrier in breastfeeding. Provision of ANC should be increased and building confidence about having enough

milk in mothers is very necessary. The health professionals also have role in counselling about breastfeeding during the prenatal and postpartum phases.

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**Conflict of Interest:** None declared.

**Ethical Approval:** The study was approved by the Institutional Ethics Committee.

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