

Original Research Article

A cross sectional study to assess factors related to exclusive breast feeding practice among mothers of infants aged six months or less admitted in pediatric wards at tertiary care hospital

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ABSTRACT

Background: Infant feeding practices have a major role in determining the nutritional status of a child. Despite several benefits of exclusive breastfeeding, the practice is not common in many developing nations, including India. So there is a need to assess factors associated with exclusive breast feeding by mothers.

Methods: A cross sectional study using the quantitative method by the means of a well prepared questionnaire, carried out in the pediatric ward of a tertiary care hospital in Mumbai. Data was collected by face to face interview and filed in a pretested, semi-structured, questionnaire. Data entry was done in excel sheet and analysed with the help of epi-info and statistical package for the social sciences (SPSS) software and was presented in tabular and graphical form.

Results: A total of 112 mothers with infants <6 months of age participated in the study with a response rate of 98%.

Conclusions: Majority of mothers' perception about exclusive breastfeeding was that they considered it insufficient for their infant's health and nutrition, and hence also relied on other feeds.

Keywords: Mother, Infant, Breastfeeding

INTRODUCTION

Infant and young child nutrition has been engaging the attention of scientists and physicians since long for the very simple reasons that the growth rate in the life of human beings is maximum during the first year of life and this age is vulnerable to infections too.¹ Therefore infant feeding practices have a major role in determining the nutritional status of a child and survival. World Health Organization (WHO) recommends timely initiation of breastfeeding after birth and only feeding breast milk to infants during the first 6 months of life.^{2,3} It was estimated that exclusive breastfeeding can reduce infant deaths by 13%.^{4,7} Despite its several benefits, the practice of exclusive breastfeeding is not common in many developing nations, including India. According to National Family Health Survey 2015-16 (NFHS-4), only 55% of

infants are exclusively breastfed for six months, which is a rise of nine percent from 2005-06, a rise not enough to combat the omnipresent issue of child survival, infection and malnutrition in infants in India.^{5,6}

Justification

Several strong efforts to promote exclusive breastfeeding have yielded results that are less than desirable. This may be related to the challenges that mothers encounter while breastfeeding. Recognition of these challenges, and proposing solutions for them during counselling of post natal mothers is required. Thus there is a need to assess factors associated with exclusive breast feeding by mothers. Since no such study has been conducted in our area, the current study is undertaken with aim to provide a perspective about factors related to exclusive breast

feeding among nursing mothers having infant aged six months or less admitted in paediatric ward in tertiary care hospital.

Aim

Aim of the study was to assess factors related to exclusive breast feeding practice among mothers of infants aged six months or less admitted in paediatric ward.

Objectives

Objectives of the study were to find the socio-demographic profile of study subjects, to determine the proportion of subjects unable to provide exclusive breast feeding, and to assess the maternal and child characteristics in relation to exclusive breast feeding.

METHODS

Place of study

The study was conducted at the paediatric ward of a tertiary care hospital.

Study subject

Mothers having infant aged 6 month old or less admitted in paediatrics ward were a part of the study.

Study design

The design of the study was descriptive and cross sectional.

Study period

The duration of the study was from September 2018 to September 2019.

Sampling method

The sampling method used was convenient sampling.

Sampling size

The sampling size was 112 mother infant pairs (all consenting eligible mother infant pairs in the ward, during the study period).

Study tools

A pre-designed, semi structured and validated questionnaire was used as a study tool.⁶

Inclusion and exclusion criteria

All consenting mothers of infants aged 6 months or less admitted in pediatric ward were included and mothers of

seriously ill infant and/or had difficulty in communicating were excluded from the study.

Method

The following methodology was followed: mothers of infant aged six months or less admitted 6 months attending paediatric outpatient department (OPD) using selected convenient sampling; purpose of the study, patient information sheet and content of the questionnaire were explained to subjects in local language; subjects were enrolled; informed consent taken; data was collected by face to face interview and filed in a pretested, semi-structured, questionnaire; data entry was done in excel sheet and analysed with the help of epi-info and statistical package for the social sciences (SPSS) software; and data were presented in tabular and graphical form.

Operational definitions

Early initiation of breastfeeding is when the new born is breastfed within 1 hour of birth.

Exclusive breastfeeding include feeding directly from the breast or expressed, with no additive liquids, solids, or water (with the exception of drops or syrups containing vitamins, minerals, or supplements of medicine) for the first six months

Pre-lacteal feeds include any food, liquid, or herbs given before initiation of breastfeeding.

Bottle feeding include feeding of any liquid/semisolid including breast milk from a bottle with a teat.

Ethical considerations

The study was conducted after an approval from the institutional ethics committee after briefly explaining them about the aim and purpose of the study, the method that will be used, and after assuring them the confidentiality about the participants and its voluntary nature. A patient information sheet was explained and an informed consent was taken in a language that subject understand, for their participation. They were also explained their right to not answer any question.

RESULTS

Sociodemographic characteristics

A total of 112 mothers with infants <6 months of age participated in the study with a response rate of 98%. The age range of mothers included in the study was 18–40 years. Of the total participants, 99 were young mothers aged 18–34 years and 13 were aged 35 and above.

Age ranges of the children considered in this study were 0–6 months (optimal age range for exclusive breastfeeding). The distribution of children in age group

was: 34 (29.8%) for <2 months; 22(19.7) ≥ 2 up to <3 months; 21 (18.9%) ≥ 3 months up to <4 months and; and 35 (31.6%) ≥ 4 up to 6 months respectively. 58 (51.7%) children were male from the total study participants.

Of the total respondent mothers, 53 had not attended formal education, 61 (54.46%) of respondents were housewives, 51 (45.54%) were working (Table 1).

Table 1: Socio-demographic characteristics of subjects.

Variables	Frequency (N)	Percent (%)
Age of mothers in years		
<25	33	29.8
26-35	71	63.1
>35	8	7.1
Total	112	
Age of children in months		
<2	34	29.8
≥ 2 to <3	22	19.7
≥ 3 to <4	21	18.9
≥ 4 to <6	35	31.6
Total	112	
Mother attended formal education		
Formal education	59	53
No formal education	53	47
Total	112	
Husbands attended formal education		
Formal education	79	71.9
No formal education	33	28.1
Total	112	
Per capita income of the family		
Upper class	0	0
Upper middle class	8	7.14
Middle class	28	25
Lower middle class	52	46.42
Lower class	24	21.42
Total	112	
Numbers of family members		
1-3	23	20.53
4-5	42	37.50
>5	47	41.96
Total	112	
Type of family		
Unitary	29	25.89
Joint	57	50.89
Three generation	21	18.75
Others	5	4.46
Total	112	
Mothers working status		
Housewife	61	54.46
Working	51	45.54
Total	112	

Health service and breastfeeding related characteristics

The present study indicates 75 and 62 mothers had followed antenatal and postnatal care respectively. 90 (80.36%) mothers gave birth to the index children in health facilities, the rest, 22 (19.64) delivered at home (Table 2).

Table 2: Distribution of characteristics related to breastfeeding in mothers.

Variables	Frequency (n)	Percent (%)
Place of delivery		
Home	22	19.64
Health Institution	90	80.36
Preceding birth interval		
First child	22	19.6
<2 years	61	54.46
≥ 2 years	29	25.89
Total	112	
Birth order of child		
First	22	19.64
2nd, 3rd	85	75.89
≥ 4 th	5	4.46
Main reason for not EBF (n=25)		
Breast milk alone was insufficient	56	64.4
Mother left home	10	11.5
Age of weaning	6	6.9
Necessary for health	5	5.3
Bottle feeding practice		
Yes	7	93.25
No	105	73.75
Exclusive breastfeeding		
Yes	47	41.96
No	65	58.03
Frequency of breastfeeding (times per day)		
≥ 8	69	61.60
<8	43	38.39

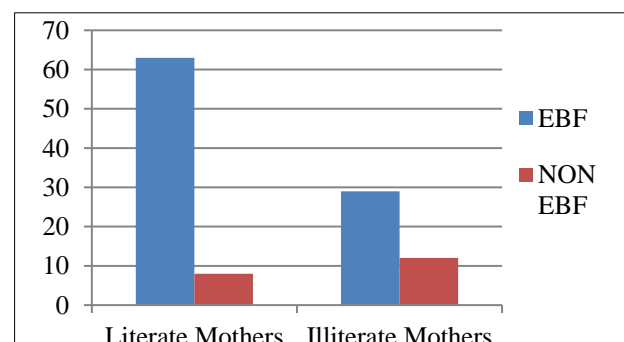


Figure 1: Literacy of mothers.

Among those who ever breastfed, more than half 79 out of 112 initiated breastfeeding within the first hour of delivery and 88 out of 112 gave colostrum to their infants, and of mothers provided clean water, gave rue (tena-adam) to

infants with the perception of protecting children against illness. About 69 (61.60%) mothers’ breastfed their infants ≥ 8 times per day while, 43 (38.39%) of the mothers

breastfed their children < 8 times a day. Moreover, 96 mothers have knowledge about exclusive breastfeeding practices (Table 2).

Table 3: Multivariate analysis of variables predicting exclusive breastfeeding practice.

Sr. no.	Variables	Practiced EBF		AOR (95% CI)	P value
		Yes	No		
1	Age of the mother				
	15–24	26	6	0.65 (0.21, 1.99)	0.45
	25–34	52	15	0.63 (0.23, 1.74)	0.37
	≥ 34	9	4	1	
2	Mothers read and write				
	Yes	63	8	4.0 (2.20, 7.25)	0.001**
	No	29	12	1	
3	Husband education				
	Yes	72	18	0.90 (0.48, 1.89)	0.90
	No	14	8	1	
4	ANC attendance (ANC)				
	Yes	63	12	0.88 (0.45, 1.69)	0.69
	No	13	24	1	
5	Postnatal care (PNC)				
	Yes	53	9	0.81 (0.42, 1.53)	0.53
	No	34	16	1	
6	Initiation of breastfeeding				
	Within 1 hour	67	12	2.2 (1.1,4.27)	0.001**
	After 1 hour	21	12	1	
7	Colostrum fed				
	Yes	73	15	2.1 (1.11, 4.28)	0.023*
	No	15	9	1	
8	Awareness of EBF				
	Yes	82	14	6.0 (3.1, 11.7)	0.001**
	No	6	10	1	

P value < 0.05 (significantly associated), **p value < 0.001 (highly significant association)

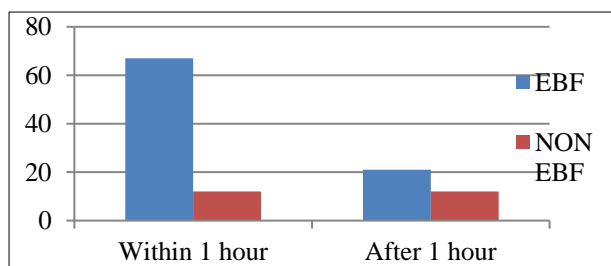


Figure 2: Initiation of breastfeeding.

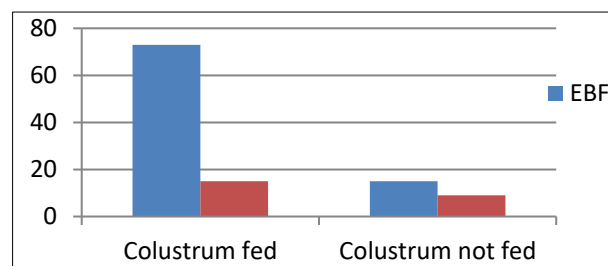


Figure 4: Colostrum feeding practices.

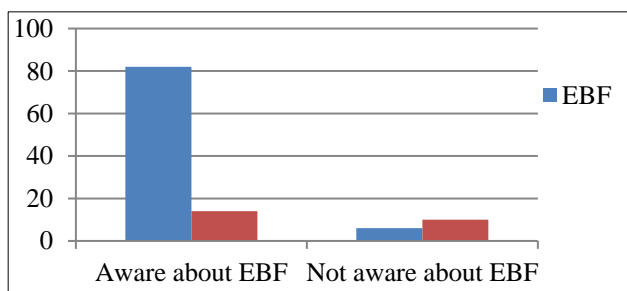


Figure 3: Awareness of mother about EBF.

DISCUSSION

The above study was a cross sectional study using by the quantitative method by the means of a well prepared questionnaire, carried out in the pediatric ward of a tertiary care hospital in Mumbai.⁶

It was found from the study, that a majority of mothers’ perception about exclusive breast feeding was that they considered it insufficient for their infant’s health and nutrition, and hence also relied on other feeds, like bottle

feeding, solid feeds, giving water (under the pretense that the infant must be hungry) and other liquids like honey (cultural beliefs) for building of the immunity of the infant.

A major portion of mothers also stated that they had a lack of privacy and time, since they were working, and hence resorted to other feeds.

There are other reasons stated in other studies too for not preferring exclusive breast feeding.^{8,9}

Hence, during counseling, it must be taken care that these factors are mentioned to the young mothers and are proposed suitable solutions for it that best suits their needs.

Limitations

Due to a small sample size, the response received from the participants reflects a view of the current cross sectional view of the society only to a certain degree.

Results of this study are purely based on the responses received by the participants and are subjective.

The exclusive breast feeding practices of the participants could be determined in a better way if a longer period of follow up of at least a year was done. Due to time restraints, this was not possible.

CONCLUSION

Majority of mothers' perception about exclusive breastfeeding was that they considered it insufficient for their infant's health and nutrition, and hence also relied on other feeds.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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