

Prevalence of Exclusive Breast Feeding and its Associated Factors among Mothers

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Citation

Bhandari N, Prajapati R. Prevalence of Exclusive Breast Feeding and its Associated Factors among Mothers. *Kathmandu Univ Med J.* 2018;62(2): 166-70.

ABSTRACT

Background

Breast feeding is the priceless gift given by mother to her newborn. It also has benefits to both mothers and baby. Prevalence of exclusive breast feeding varies from 26.4% in one study to that of 82.2% in another study.

Objective

To assess the factors associated with exclusive breast feeding among mothers.

Method

A prospective cross-sectional study using systematic random sampling method, was carried out in Dhulikhel Municipality for two months in November and December 2017 after taking permission from KUSMS IRC and from Dhulikhel Municipality. The study sample was 218 mothers whose infants between 6 months to 1 year were included in the study. A structured and semi-structured interview schedule was used in order to collect the information. Descriptive statistics including frequency and percentage was calculated to summarize mothers' socio-demographic information. Chi-square test was used for non-parametric categorical data in order to find out the association between variables. P-value less than 0.05 were considered significant.

Result

The prevalence of exclusive breast feeding was 75.7% in the present study. Maternal age found to be varied from 17 years to 40 years. Maternal age, parity of mother and types of family found to be significantly associated with the practice of exclusive breast feeding ($p < 0.05$). Mothers' occupation and education level was not associated with the practice of exclusive breast feeding.

Conclusion

Majority of the mothers practice exclusive breast feeding (75.7%). Finding of this study i.e. the factors influencing the practice of exclusive breast feeding will help the health care workers to plan the community awareness program on it.

KEY WORDS

Exclusive breast feed, Infants, Mothers

INTRODUCTION

The prevalence of exclusive breast feeding (EBF) varies from country to country. The practiced of EBF at national level, is only 28.5%, in South West Nigeria (56.1%) in Tehran (46.5%) and in rural Bangladesh (36%).¹⁻⁴

There are different factors found in the literatures which are associated with EBF and they are like, initiation of the breastfeeding within one hour after birth, housewife and mothers who receives postnatal counseling,⁵ educational status, maternal benefits,² maternal age, marital status, occupation, education, parity and financial status of the family.⁶ Infant age morbidity, maternal morbidity, and maternal knowledge on breast feeding.⁷

“Exclusive breast feeding” is defined as no other food or drink, not even water, except breast milk for six months of life, but allows the infants to receive ORS, drops and syrups.⁸ The colostrums, helps to protect the new born until its own immune system is properly functioning and creates a mild laxative effect, expelling meconium.⁹ EBF for the first 6 months of life followed by nutritionally adequate and safe complementary foods with continued breast feeding till two years of age or beyond is the recommended practice by WHO and American Academy of Pediatrics.¹⁰ Breastfed infants are at reduced risk of many health conditions, like gastrointestinal and respiratory tract infection, otitis media, allergies and sudden infant death syndrome.¹¹ It has also positive long-term health outcomes such as decreased risks of obesity and diabetes and increase performance in intelligence tests during childhood and adolescence.¹² Studies have also shown that breast feeding helps in losing pregnancy weight faster and reduces the risk of type 2 diabetes and cardiovascular diseases.¹³⁻¹⁵

The Baby friendly hospital initiative (BFHI) supports and promotes the practice of exclusive breast feeding.¹⁶ Sustainable World Alliance for Breast feeding Action (WABA) also organizes the world breast feeding week which is being celebrated every 1-7th August or November among 170 countries to encourage breast feeding and to improve the health of babies and mothers around the world.¹⁷

Many national and international studies were carried out in similar topic but in Dhulikhel Municipality, there is no published data found yet. So, with the objective of assessing the factors associated with exclusive breast feeding among mothers was carried out.

METHODS

This prospective cross-sectional study using systematic random sampling method was carried out in Dhulikhel Municipality for two months (November and December 2017) after taking permission from KUSMS-IRC and Dhulikhel Municipality.

Eight out of thirteen wards were randomly selected by lottery method. The required sample size from each ward

was calculated proportionate to its size. Sampling interval for each ward was thus calculated. Hence, required household were chosen by systematic random sampling.

The study sample population was 218 mothers whose infants aged between six months to one year were enrolled in the study. Sample size calculation was done by taking 66% prevalence.¹⁸ 90% power at 5% level of significance. If there were two or more infants in the same household, then lottery method was used to select one respondents. The structured and semi-structured interview schedule was developed and validated for the content validity by experts in the specific field. Data was collected by interviewing mothers in Nepali language. Interview schedule was pretested on 10% of respondents in the different Ward of Dhulikhel Municipality and it was not included in the main study. The interview schedule had socio-demographic information and question on practices of mothers regarding exclusive breast feeding. The respondents were informed about the purpose of the study, written consent (for study purpose) was obtained from each mothers before the interview, who were willing to participate in the study. Descriptive statistics including frequency and percentage were calculated to summarize mothers' socio-demographic and practice related information. Chi-square test was used for non-parametric categorical data in order to find out the associations between variables. P-value less than 0.05 was considered significant.

RESULTS

Out of 218 respondents, more than three-fourth (88%) of them was aged group ≤ 30 years. Male infants were slightly above half (52.8%). Among the 6-12 months aged old infants, both below and above 9 months old infant were almost equal. Slightly more than half of the respondents were primiparous mothers (57.8%). Around three-fourth of the respondents (72.9%) belongs to nuclear family. Almost all the respondents were homemaker (89%) and were literate (98.6%).

Nearly three-fourth of the respondents (75.7%) had heard of exclusive breast feeding. (Table1)

Three-fourth of the respondents (75.7%) exclusively breast fed their present infants. Almost cent percent (96.3%) of the respondents found to have started breast feeding within the first hour of the delivery. The entire respondents (96.8%) fed their infants on demand. Cent percent of the respondents fed their infants at night and they did not give prelactating feed before initiation of breast feeding. Nearly half of the respondents found to have allowed their infants to drink water along with breast milk (48.9%). One-third of the respondents found to have known that feeding colostrums to their infants was healthy food (32.7%). Three-fourth of the respondents found having intention to breast feed their infants for 2 years (78.4%). Almost (83.5%) of the respondents did not feel difficulties in the

Table 1. Demographic characteristics of respondents (n=218)

Characteristics	Frequency	%
Mothers Age		
<= 30	192	88
> 30	26	11.9
Sex of the infant		
Male	115	52.8
Female	103	47.2
Age of the infant		
6-9 months	108	49.6
10-12 months	110	50.4
Parity of mothers		
Primiparous	126	57.8
Multiparous	92	42.2
Types of family		
Nuclear	159	72.9
Joint	59	27.1
Occupation		
Homemaker	194	89.0
Service	14	6.4
Business	10	4.5
Education level		
Literates	215	98.6
Illiterates	3	1.4
Heard of exclusively breast feed		
Yes	165	75.7
No	53	24.3

initiation of breastfeeding. Among (16.5%) respondents who initiate breast feeding late, pain was the main reason (69.4%). (Table 2)

Three-fourth of the respondents (75.7%) practiced exclusive breastfeeding of which mothers' age, parity and types of the family were significantly associated with the practicing of EBF among nursing mother. Sex of the infant, maternal occupation and mother's educational status were not significantly associated with the practicing of EBF among nursing mother. (Table 3)

DISCUSSION

The prevalence of EBF in this study was 75.7%. This finding was consistent with the study findings conducted in Nigeria (66.7%) and in Ethiopia (82.2%).^{19,20} In the other hand contrast study finding found 28.5%, 31%, 26.4% respectively in three different countries.^{1,21,22} From the above finding concludes that the practice of EBF varies from place to place and country to country.

In the present study mothers age is significantly associated with practice of EBF (<0.05). Similar, finding seen in two different studies conducted in Nigeria.^{6,23} But, some study finding show there is not significant relationship between mother's age and that of practice of EBF.² Increase in age,

Table 2. Practices of EBF by respondents (n=218)

Descriptions	Frequency	%
EBF this infant		
Yes	165	75.7
No	53	24.3
Time of starting breast feeding after delivery (present infant)		
Less than 1 hour	210	96.3
More than 1 hour	8	3.7
Frequency of breast feeding		
On demand	211	96.8
Every 2 hours	5	2.3
Every 4 hours	2	0.9
Food feed to the infant along with breast milk (*)		
Plain water	195	48.9
Honey	3	0.7
Food	114	28.6
Fruits	6	1.5
Super-flour	65	16.3
Milk	3	0.7
Non-vegetarian food	12	3.0
Reasons for feeding colostrums to the infant (*)		
Nutritious	52	22.4
Helps in growth and development	30	12.9
Fight against diseases	74	31.8
Healthy food	76	32.7
Intention to breastfeed this infant		
1 year	6	2.8
2 years	171	78.4
3 years	34	15.6
Difficulty in initiation of breast feeding		
Yes	36	16.5
No	182	83.5
Reasons for late initiation of breast feeding (n=36)		
Caesarian section	8	22.2
Pain	25	69.4
Baby in NICU	2	5.5
Delay in shifting of mothers to the ward	1	2.7

(*)indicate multiple response

increases the skill and experiences which may increase the practices of EBF.

In the present study parity of the mother has significantly associated with the practice of EBF. The finding is supported by other study too.⁶ In contrast, John G. Safari and Al-Ghwas in their study found no significant association between parity of mother and that of practice of EBF.^{24,25} Mothers with more than one child have increased knowledge, skills and experiences from previous pregnancies and they may practice EBF.

Present study show association between the types of family and practice of EBF. On related variables no published data was found to support or contrast to it.

Table 3. Association between demographic characteristics with practice of EBF (n=218)

Characteristics	Exclusive Breastfeeding		Total (%)	p-value
	Yes f(%)	No f(%)		
Maternal age (years)				
<= 30	140 (72.9)	52 (27.1)	192(100)	0.010*
>30	25 (96.20)	1 (3.8)	26 (100)	
Parity				
Primi parous	80 (63.5)	46 (36.5)	126(100)	0.001*
Multi parous	85 (92.2)	7 (7.6)	92 (100)	
Types of family				
Nuclear	131 (82.4)	28 (17.6)	159(100)	0.001*
Joint	34 (57.6)	25 (42.4)	59 (100)	
Occupation				
Housewife	145 (74.7)	49 (25.3)	194(100)	0.355
Employed	20 (83.3)	4 (16.7)	24 (100)	
Educational status				
Informal education	47(83.9)	9 (16.1)	56(100)	0.950
Formal education	118 (72.8)	44 (27.2)	162(100)	

*Significant at p-0.05

This study doesn't show any significant association between maternal occupation and practice of EBF. In the line up to this study the other studies also not found any significant association in their study.² Another study result demonstrated the significant association between occupation of mother and that of practice of EBF.⁶ The difference between the literature findings may be, in

the present study almost all of the respondents were homemakers.

In the present study, there is no significant association between mothers education and that of practice of EBF. In support to present study Zenebu in 2015 found no significant association.²⁰ Totally different finding demonstrated in the study regarding educational level of mother and that of practice of EBF.⁶

Multiparous mothers may be the confounders in the present study, which may have affect the practice of EBF. The limitations of the study comprise ANC checkup and the place of delivery of the baby.

CONCLUSIONS

The practice of EBF shows good among respondents (75.7%). Respondents (75.7%) had heard about EBF. Ninety six percent of them start feeding their newborn within the first hour and they also feed their infant on demand. Respondents (78.4%) had intention to breast feed their present child upto 2 years. Better understanding of factors responsible for the practice of EBF can increase the practice of EBF.

ACKNOWLEDGEMENT

We would like to express our sincere gratitude to all the respondents of the study for their time and effort given. In the same way we also like to thanks Ms. Satyaa Shrestha for her statistical guidance and Dr. Tikaram Poudel for English correction.

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