

FACTORS ASSOCIATED WITH EXCLUSIVE BREAST FEEDING PRACTICES AMONG MOTHERS OF INFANT AND YOUNG CHILDREN IN A PRIMARY HEALTH CARE CENTRE, KATHMANDU: A CROSS-SECTIONAL STUDY

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ABSTRACT

Introduction

Exclusive breast feeding up to first six months of life is the safest and healthiest practice for children all over the world. Various factors may affect to the exclusive breast-feeding though it is necessary for promotion of child's health.

Objective

The objective of this study was to identify the factors associated with exclusive breast feeding practices among mothers of infant and young children.

Methodology

A cross-sectional study was carried out at Gokarna Primary Health Care Centre, Kathmandu. Total 137 mothers having at least one child 0-23 months of age, attending to Maternal and Child Health Clinic were purposively selected for the study. Consecutive sampling was done. All the mothers who meet the criteria during the period of data collection (August to September, 2017) were included in the study. Ethical clearance was obtained from the Institutional Review Committee of Kathmandu Medical College, Kathmandu. Written consent was taken from each respondent and face to face interview technique was used to collect the data using pre-designed structured questionnaire. Data were analyzed using Statistical Package for Social Science 16.0 version. Both descriptive and inferential statistics were used for data analysis.

Results

Majority of the respondents (56.9%) had adequate knowledge on exclusive breast feeding, about 54% of the mothers had initiated breast feeding within one hour of delivery and all in all mothers had ever breast fed their child. More than one third (36.5%) of babies were given pre-lacteal fed, around two thirds of babies were breast fed exclusively at least less than one month but only around 40% of the babies had received exclusive breast feeding for six months. Exclusive breast feeding was significantly associated with, normal vaginal delivery, pre-lacteal fed given and having adequate level of knowledge regarding exclusive breast feeding

Conclusion

On the basis of findings, mode of delivery, pre-lacteal feeding and level of knowledge on exclusive breast feeding were the factors significantly associated with exclusive breast feeding. The practice of exclusive breast feeding for six months of age was not up to the mark.

KEY WORDS

Exclusive breast feeding, infants, mothers, primary health care.



INTRODUCTION

Breast milk contains all the required nutrients for an infant up to first six months of life. It protects against common childhood diseases such as diarrhea and pneumonia, and may also have longer-term benefits such as lowering mean blood pressure and cholesterol, and reducing the prevalence of obesity and type-2 diabetes mellitus.¹ Exclusive breast feeding for 6 months has many benefits for the infant as well as mother. It protects against gastrointestinal infections which is evidenced not only in developing but also developed countries. Early initiation of breast feeding within one hour of birth protects the neonate from many infections and reduces neonatal mortality.²

“Exclusive breast feeding (EBF) means that the infant receives only breast milk, no other liquids or solids are given – not even water – with the exception of oral rehydration solution, or drops/syrups of vitamins, minerals or medicines”.¹ For a child to be exclusively breast fed there should not be any pre-lacteal feeding of anything solid or liquid other than breast milk, medications or vitamins. Giving even a small amount water, gripe water, juice or porridge to infant is not considered “exclusive breast feeding.” This recommendation is worldwide irrespective of development and socio-economic status of countries.³ To achieve optimal growth and development, WHO recommends infants should be exclusively breast fed for up to first six months of life. Thereafter, infants should be given nutritionally adequate and safe complementary foods, with continuing breast feed for up to two years or more.¹ Worldwide, about 40% of infants 0–6 months are exclusively breast fed.²

According to the findings of Nepal Demographic Health Survey 2016, Breast feeding is quite common in our country. Almost all (99%) of children have ever breast fed in Nepal and more than half (55%) of children are breast fed within the first hour of life. Though pre-lacteal is not recommended, about one third (30%) of children who were ever breast fed received a pre-lacteal feed. Two-thirds (66%) of children under six months are exclusively breast fed.⁴

A study on Breast feeding practices and associated factors was conducted in 2014 in Bhaktapur in which age of child, educational status, religion, occupation and level of knowledge on breast feeding were found as the significant factors associated with breast feeding.⁵ Though it is essential in the promotion of child's health, various factors may affect to discontinue the exclusive breast feeding practices. In order to increase the rate of exclusive breast feeding, the factors hindering to this practice should be explored. Many studies have been done on breast feeding practices in Nepal however, we found very few studies related to exclusive breast feeding. Further speculation on this matter is needed. Thus, this study was carried out to identify the factors associated with exclusive breast feeding practices among mothers of infants and young children in a Primary Health Care Centre of Kathmandu.

METHODOLOGY

A cross-sectional study was conducted at Gokarna Primary Health Care Centre (PHCC), Kathmandu, Nepal. Mothers from various demographical characteristics and backgrounds visit here for maternal and child health (MCH) services. A variety of information can be collected regarding the research topic. So the researchers had purposefully selected this area as the study setting. All the mothers having at least one child 0-23 months, and attending to MCH clinic and willing to participate were the study population. We excluded the mothers attending to MCH clinic but do not have child or have child more than 2 years. We had taken socio-demographic and obstetrical characteristics of the respondents as independent variables and practice of exclusive breast feeding as outcome variable. Total 137 mothers who met the inclusion criteria during one month data collection period were selected for the study by using consecutive sampling technique. Forty one women had less than six months child and 96 women had 6-23 months child. Structured questionnaire was designed in order to collect the necessary data. Questionnaire was divided into three parts: part I consisting of socio-demographic variables, part II consisting of awareness regarding Exclusive Breast feeding and part III consisting of practices of Exclusive Breast feeding. Face to face interview technique was used to collect the data. Data collection was done from August to September, 2017. For the ethical consideration, approval for the study was obtained from institutional review committee of Kathmandu Medical College, permission for data collection was taken from the concerned authority of Gokarna PHCC and written consent was obtained from each respondents of the study. All the collected data were entered in Epidata version 3.1 and were analyzed using Statistical Package for Social Science (SPSS) 16.0 version. Both descriptive and inferential statistics were used for data analysis. Socio-demographic and obstetrical information of the respondents were presented in frequency and percentage. For knowledge regarding exclusive breast feeding, one score for each correct response was given, and more than 50% of total score was considered as adequate level of knowledge and less than 50% was considered as inadequate knowledge. Chi-square test was used for analysis of association between the demographic variables with the practice of exclusive breast feeding. *P-value* of <0.05 was considered as statistically significant.

RESULTS

Socio-demographic profile of the respondents is illustrated in table 1. Majority of the respondents (62%) were between age group of 20 to 30 years with the Mean \pm S.D = 25.09 \pm 5.55 years. According to ethnicity of the respondents, majority (68.6%) were Janjati followed by Brahmin and Chhetri (21.9%). Among the Janjati most of the respondents were Tamang. Likewise, majority (62.2%) of the respondents were Hindus and 29.2% were Buddhists. Regarding educational status of the respondents, 38.6% had primary level and 36.6% had secondary level education. Similarly,



Table 1: Socio-Demographic characteristics of the respondents (n=137)

Variables	Number	Percentage
Age (in Years)		
Below 20	22	16.1
20-30	85	62.0
Above 30	30	21.9
<i>Mean ± S.D= 25.09 ± 5.56</i>		
Ethnicity		
Janajati	94	68.6
Brahmin & Chhetri	30	21.9
Others	13	9.5
Religion		
Hindu	88	64.2
Buddhist	40	29.2
Christian	9	6.6
Educational status		
Non-formal education	36	26.3
Primary Level	39	38.6
Secondary Level	37	36.6
Higher Secondary Level	16	15.9
Bachelor and above	9	8.9
Occupation		
Homemaker	75	54.7
Daily laborer	35	25.5
Farmer	16	11.7
Service	9	6.6
Business	2	1.5
Type of family		
Nuclear	98	71.5
Joint	39	28.5

26.3% of the respondents had never been to school. By occupation, majority of the respondents (54.7%) were homemaker followed by 25.5% daily laborer. On the basis of type of family, more than two thirds (71.5%) of the respondents belonged to nuclear family.

Around 60% of the respondents had one child. Among them 70% had child of age 6 to 23 months. Majority (76.6%) of the respondents had institutional delivery among which 85.4% had normal vaginal delivery. Most (88.3%) of the respondents had gone for antenatal check up and majority (76.9%) had received advise on exclusive breastfeeding during the visit. (Table 2)

Majority of the respondents (56.9%) had adequate knowledge on exclusive breastfeeding (Table 3). Practice regarding breastfeeding and exclusive breastfeeding is presented in table 4. Majority (54%) of the mothers had initiated breastfeeding within one hour of delivery. More than one third (36.5%) of babies were given pre-lacteal fed and most (86%) of them were given formula feed (Lactogen) as pre-lacteal feed. Around two third (64.9%) of the babies

Table 2: Obstetric characteristics of the respondents (n=137)

Variables	Number	Percentage
Number of Children		
One	81	59.2
Two	41	29.9
Three or more	15	10.9
Age of current child		
Less than 6 months	41	29.9
6 to 23 months	96	70.1
Sex of current child		
Male	76	55.5
Female	61	44.5
Place of delivery		
Home	32	23.4
Institution	105	76.6
♦ Public	40	38
♦ Private	65	62
Mode of delivery		
Normal Vaginal	117	85.4
Caesarean Section	20	14.6
Antenatal visit		
Yes	121	88.3
No	16	11.7
Advised on EBF during ANC (n=121)*		
Yes	93	76.9
No	28	23.1

*Exclusive breast feeding

Table 3: Knowledge regarding exclusive breastfeeding (n=137)

Variables	Number (%)
EBF means only breast milk, no other foods, not even water	79 (57.7)
Breast milk only is adequate in the first 6 months	86 (62.8)
EBF babies grow healthier than formula-fed	104 (75.9)
EBF is time-consuming and more demanding	68 (49.6)
Colostrums should be given to infant	116 (84.7)
Pre-lacteal feeding should be given	23 (16.8)
Mothers can breastfeed exclusively along with job	27 (19.7)
Overall level of knowledge on EBF	
Adequate	78 (56.9)
Inadequate	59 (43.1)

Table 4: Practice regarding breastfeeding (n=137)

Variables	Number	Percentage
Initiation of breast feeding		
Within one hour of delivery	74	54.0
One hour after to 24 hours	51	37.2
After 24 hours	12	8.8
Pre-lacteal feeding		
Yes	50	36.5
No	87	63.5
Types of pre-lacteal feed (n=50)		
Formula feed	43	86.0
Honey	5	10.0
Animal milk	2	4.0
Exclusive breast feeding for six months (n=96*)		
Yes	38	35.1
No	48	
Still breast feeding		
Yes	128	93.4
No	9	6.6

*Duration of EBF was analyzed among mothers of 6-23 months children only



were breast fed exclusively for at least less than one month but only around 40% of the babies had received exclusive breast feeding for six months. More than 90% of the mothers were breast feeding their child continuously up to 23 months of age.

Chi-square test was applied to identify the factors associated with exclusive breast feeding practices. There was no statistically significant association between exclusive breast feeding and the age, ethnicity, religion, education, occupation, antenatal visits, advice on exclusive breast feeding during ANC, number of children and age of current child. Exclusive breast feeding was significantly associated with normal vaginal delivery, pre-lacteal fed given and having adequate knowledge regarding exclusive breast feeding. (Table 5)

Table 5: Association of exclusive breastfeeding up to six months with selected variables

Variables	EBF Yes	EBF No	P-value
Mode of delivery			
Normal vaginal	37	80	0.01*
Caesarean section	1	19	
Pre-lacteal fed			
Yes	26	48	<0.001**
No	12	51	
Knowledge on EBF			
Adequate	31	21	<0.001*
Inadequate	7	37	

*chi-square test, **Fisher's exact test

DISCUSSION

Exclusive breastfeeding practice during the first six months of life is considered as the most effective intervention for preventing childhood morbidity and mortality.⁶ The World Health Organization (WHO) estimates that a lack of exclusive breastfeeding for the first six months of life contributes to about 800,000 preventable child deaths worldwide each year.⁷

A national infant and young child feeding /breastfeeding policy of Nepal has recommended that infants should be exclusive breastfed for the first six months and complementary feeding to be started after six months with continued breastfeeding up to 2 years and more.⁸ Strategy for Infant and Young Child Feeding: Nepal 2014 has set targets to increase early initiation of breastfeeding rate, within one hour birth from 45% to 65%, increase exclusive breastfeeding rate (<6 months) from 70% to 80%, and maintain the rate of continued breastfeeding up to 2 years at above 93% by 2020.⁹

The findings of the study revealed that majority of the respondents (62%) were between age group of 20 to 30 years with the Mean \pm S.D= 25.09 \pm 5.55 years, majority (68.6%) were Janjati likewise, majority (62.2%) of the respondents were Hindu and majority of the respondents

(54.7%) were homemaker. Around 70% of the respondents had child of age 6 to 23 months. Majority (76.6%) of the respondents had institutional delivery among which 85.4% had normal vaginal delivery. Majority of the respondents (56.9%) had adequate knowledge on exclusive breastfeeding, about 54% of the mothers had initiated breastfeeding within one hour of delivery and all in all mothers had ever breastfed their child. More than one third (36.5%) of babies were given pre-lacteal fed and around 40% of the babies had received exclusive breastfeeding for six months.

Socio-demographic findings of the present study showed that majority of the respondents (62%) were between age group of 20 to 30 years, 62.2% were Hindus, 26.3% were never been to school and majority of the respondents (54.7%) were homemaker by occupation. The findings was consistent with the findings of a study conducted in Bhaktapur, Nepal where majority (76.6%) of the respondents were from age group 20-30 years, around 83.0% were Hindus, 25.8% could not read and write, and 62.8% respondents were house-wives.⁵

The findings of this study related to practice on breastfeeding showed that majority (54%) of the mothers had initiated breastfeeding within one hour of delivery, more than one third (36.5%) of babies were given pre-lacteal feed, around two thirds (64.9%) of the babies were breastfed exclusively at least less than one month but only around 40% of the babies had received exclusive breastfeeding for up to first six months of life and more than 90% of the mothers had breastfed their child continuously up to 23 months of age. Most of these findings were comparable with the findings of NDHS 2016⁴ which revealed that more than half (55%) of children are breastfed within the first hour of life. Thirty percent of children who were ever breastfed received a pre-lacteal feed. Two-thirds of children under six months are exclusively breastfed.⁴ Findings were also consistent with the study done in Bhaktapur which revealed that 14% babies were given pre-lacteal feeding, 87.1% babies received colostrums, 27.9% fed the first milk within half an hour of birth and 55.0% mothers practiced exclusive breast-feeding for six months.⁵ The findings were also comparable with another study done in Pokhara, Nepal which showed that nearly all mothers (98%) breastfed up to six months, but the exclusive breastfeeding rate was declined rapidly from 90.9% at birth to 29.7% at 22 weeks of age.¹¹

In this study, there was no significant association of exclusive breastfeeding with educational status of mother, occupation of mother, and advice on EBF during ANC. In contrast, a study on exclusive breastfeeding and associated factors among mothers showed that educational status of the mother and her husband, employment status of mother, counseling on breastfeeding during ANC, infant feeding counseling during PNC, were significantly associated with EBF.¹⁰ In the present study exclusive breastfeeding was significantly associated with normal vaginal mode of delivery, pre-lacteal feeding and knowledge regarding exclusive breastfeeding. The result was comparable with the

same study in which exclusive breastfeeding was significantly associated with colostrums feeding, pre-lacteal feeding and knowledge about breastfeeding.¹⁰ Similarly, the finding was consistent with a study done in central Nepal which showed that caesarean delivery was significantly associated with exclusive breastfeeding cessation.¹¹

CONCLUSION

On the basis of findings, it can be concluded that exclusive breastfeeding was significantly associated with normal vaginal delivery, pre-lacteal fed given and knowledge regarding exclusive breastfeeding. Statistically significant association of exclusive breastfeeding practice was not found with other socio-demographic variables. Though breastfeeding practice was found to be good, rate of absolute exclusive breastfeeding for six months of age is quite low. Many mothers are still unaware about exclusive breastfeeding and its importance. Awareness programmes on importance of exclusive breastfeeding are essential in the community to increase the rate of exclusive breastfeeding and to reduce the avoidable risk of morbidities and mortalities among infants and young children.

LIMITATION OF THE STUDY

This study was carried out in a very small sample size. Study unit was selected by using purposive sampling technique.

So, the findings of the study may not represent the whole population.

RECOMMENDATIONS

Similar studies can be conducted using larger sample size. Hospital based prospective study can also be done regarding the topic. Awareness programmes on importance of exclusive breastfeeding are essential in the community to increase the rate of exclusive breastfeeding.

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CONFLICT OF INTEREST

Authors have declared that there is no conflict of interest regarding the study.

FINANCIAL DISCLOSURE

None

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