

# Knowledge and Practice of Mother regarding Exclusive Breastfeeding Having Infant at a Tertiary Level Hospital, Kathmandu

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## Abstract

**Introduction:** Promotion of exclusive breastfeeding is a cost effective intervention to reduce infant mortality in developing countries. The objective of this study was to identify knowledge and practice of mothers regarding exclusive breastfeeding.

**Material and Methods:** This was a descriptive exploratory study carried out in the immunization clinic of tertiary level hospital in Kathmandu. A total of 323 mothers who came for immunization of six months to one year were selected as the sample for the study by using non-probability purposive sampling technique. Semi - structured interview questionnaire was used to collect the data both on knowledge and practice of exclusive breastfeeding, from 13<sup>th</sup> July to 8<sup>th</sup> September 2014. **Results:** Study findings revealed that 84.5 % of the respondents were aware of the correct meaning of exclusive breastfeeding and 49.5 % of the respondents practiced exclusively breastfeeding to their children up to 6 months. There was statistically significant association of respondent's level of knowledge regarding exclusive breast feeding with their educational status ( $p = 0.034$ , OR = 1.7, 95% CI = 1.03-2.66) and type of delivery ( $p = 0.005$ , OR = 1.9, 95% CI = 1.2-3). Likewise, a significant association was seen between respondent's level of practice regarding EBF and type of delivery ( $p = 0.005$ , OR = 1.9, 95% CI = 1.2-3).

**Conclusion:** Study concludes that only about half of the mothers tended to have adequate knowledge regarding exclusive breast feeding. However, practice of exclusive breastfeeding for up to six months tended to be low so there should be efforts on encouraging and counseling for exclusive breast-feeding up to six months in hospital, community and immunization clinic.

**Key words:** Exclusive Breastfeeding (EBF), Knowledge, Practice, Mother

## Introduction

Breast milk is the natural first food for babies. It provides all the nutrients required by the infant for the first six months of life and it continues to provide up to half or more of a child's nutritional needs during the second half of the first year, and up to one-third during the second year of life<sup>1</sup>. Exclusive breastfeeding is one of the most cost effective interventions to reduce infant mortality. It is estimated that more than one out of every 10 infant-deaths (13%) could be saved

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by promoting exclusive breastfeeding<sup>2</sup>. For almost all infants, breastfeeding remains the simplest, healthiest and least expensive method of feeding. Despite strong evidence in support of exclusive breast feeding (EBF) for the first six months of life; its prevalence has remained low worldwide<sup>3</sup>. Globally less than 40% of infants under six months of age are exclusively breastfed. Adequate breastfeeding support for mothers and families could save many young lives<sup>4</sup>.

Breastfeeding helps to prevent hypothermia and hypoglycemia in newborn

babies, which are the commonest causes of early neonatal deaths especially among low birth weight and premature babies. During the late neonatal period, most deaths in developing countries occur due to infections such as sepsis, acute respiratory tract infection, meningitis and diarrhea. Feeding colostrums and exclusive breastfeeding protects against such deaths<sup>5</sup>.

According to Nepal Demographic and Health Survey Report<sup>6</sup>, Forty-one percent of children under five years of age are stunted, and 11 percent are wasted and 29 percent are under weight. Promoting exclusive breastfeeding up to six months of age to 88% by the end of 2015 and controlling protein energy malnutrition (PEM) are the major strategies of government of Nepal<sup>7</sup>. Therefore, protecting and promoting breastfeeding has been one of the important priorities of public health in Nepal.

In the conditions that normally exist in developing countries, exclusively breastfed children are six times more likely to survive in the early months than non-breastfed children. Exclusively breastfed infants are six times less likely to die from diarrhea and 2.4 times less likely to die from acute respiratory infection in first six months of life<sup>8</sup>.

The aim of this study was conducted to identify knowledge and practice of exclusive breastfeeding (EBF) among the mothers having infants.

## Material and Methods

This descriptive exploratory study was carried out after getting proposal approved by Institutional Review Board of the Institute of Medicine, Kathmandu and the Research Division of Tribhuvan University, Kirtipur Kathmandu. Permission to conduct the study in the immunization clinic was taken from the Tribhuvan University Teaching Hospital Director by submitting a written request letter of the Research Division, A semi-structured interview schedule developed for the study was pretested among 30 mothers (10% of the estimated sample size) in the immunization clinic of Kanti Children's Hospital. Study sample consisted of total 323 who attended the immunization clinic for the immunization of their infants aged between 6 months to 12 months and who met the inclusion criteria. Data was collected by trained data collectors from July 13 to September 8, 2014.

The data were edited, classified, coded and entered into Statistical Package for Social Science

(SPSS) version 21.00. The data was analyzed by using descriptive statistics such as frequency, percentage and inferential statistical such as Chi-square test, odds ratio and Pearson's correlation.

## Results

Table 1 reveals that the mean age of 323 respondents was 26.55(±3.8). Likewise, Hindus comprised 92% of the respondents and 60.4% of the respondents belonged to Brahmin/ Chhetri ethnicity. In terms of education, majority (68.1%) of the respondents had higher secondary level education. However, majority (74.3%) of the respondents were housewives. Almost all (98.5%) of the respondents had hospital delivery with vaginal delivery as 62.5% (Table 2).

Table 3 depicts knowledge of respondents and reveals that 84.5% of the responded were aware about meaning of EBF, 79.6 % of the respondents were aware of initiation of breastfeeding as within one hour to a child after birth. Likewise almost all (99.1%) respondents were aware that colostrums should be fed to the baby. Only 48.0% of the respondents gave EBF on demand.

Table 4 reveals that three-fourth (75.5 %) of the respondents gave breastfeeding to their children within one hour and 79.9% of the respondents correctly avoided giving pre-lacteal feeding to the baby. Only 54.8 % of the respondents gave breastfeeding to their infant on demand during the early months after delivery and 49.5 % of the respondents practiced EBF up to 6 months.

Knowledge responses were scored and level of knowledge regarding EBF was categorized as high and low on the basis of median knowledge score percentage of 65.6. Knowledge score percentage of 65.6 and above was categorized as high level of knowledge and knowledge score percentage of below this was categorized as low level of knowledge. More than half (53.3%) of the respondents had high level of knowledge regarding exclusive breast feeding.

Similarly, level of practice was also categorized as high and low on the basis of median practice score percentage that was 60. Practice score percentage of 60 and above was categorized as high level of practice and practice score percentage of below 60 was categorized as low level of practice. More than half (59.4%) of the respondents had high level of practice regarding exclusive breast feeding (not shown in the table).

Table 5 reveals that there was a significant association between respondent’s level of knowledge regarding EBF and educational status ( $p = 0.034$ , OR = 1.7, 95% CI = 1.03-2.66). High level of knowledge regarding EBF was found among the respondents with educational status of above SLC (47.3%) than respondents with educational status of up to SLC (44.7%). Table 6 indicates that a significant association

was seen between respondent’s level of practice regarding EBF and type of delivery ( $p = 0.005$ , OR = 1.9, 95% CI = 1.2-3). High level of practice regarding EBF was seen more among the respondents with vaginal delivery (65.3%) than respondents with caesarian delivery (49.6%). Table 7 shows there was weak but significant correlation between knowledge and practice scores.

**Table 1:** Socio-demographic Characteristics of the Respondents (n=323)

Socio-demographic Characteristics	Frequency	Percent (%)
<b>Age (in years)</b>		
18-25	136	42.1
26-30	149	46.1
31-35	32	9.9
>35	6	1.8
Mean age (SD)	26.55(±3.8)	
<b>Religion</b>		
Hindu	297	92
Buddhist	16	5
Muslim	6	1.9
Christian	4	1.2
<b>Educational Status</b>		
Illiterate	8	2.5
Primary level	16	5
Secondary level	79	24.5
Higher secondary level	220	68.1
<b>Occupational Status</b>		
Housewife	240	74.3
Service	43	13.3
Business	30	9.3
Agriculture	9	3.1

**Table 2:** Place and Type of Delivery of the Last Childbirth among the Respondents (n= 323)

Variables	Frequency	Percent
<b>Place of Delivery</b>		
Hospital	318	98.5
Home	5	1.5
<b>Type of Delivery</b>		
Vaginal	202	62.5
Caesarian	121	37.5

**Table 3:** Knowledge Regarding EBF among the Respondents

Correct Responses Knowledge Items	Frequency	Percent
Meaning of EBF as feeding only breast milk	273	84.5
Initiation of Breastfeeding as within one hour of delivery	257	79.6
Prelacteal feeding should be avoided	273	84.5
Colostrum should be given to the baby	320	99.1
Frequency of EBF to be given as on demand	155	48.0
<b>Advantages of Breastfeeding to the baby as*</b>		
Protection from infections	246	76.2
Breast milk contains the right kinds of nutrients	230	71.2
Enhances brain development	43	13.3
Easily digested	34	10.5
Enhances the emotional bonding	21	6.5
<b>Advantages of Breastfeeding to the mother as*:</b>		
Prevents breast and ovarian cancers	126	39.0
Helps in delaying another pregnancy	87	26.9
Convenient	55	17.0
Reduces postpartum bleeding	13	4.0

\*Multiple responses

**Table 4:** Practice Regarding Breastfeeding among the Respondents (n=323)

Practice-related correct items	Frequency	Percent
Initiation of breastfeeding as within one hour	244	75.5
Pre-lacteal Feeding as not given	255	78.9
Frequency breast feeding used as demand feeding	177	54.8
Duration of Exclusive Breast Feeding as up to 6 months	160	49.5

**Table 5:** Association between Respondent's Level of Knowledge regarding EBF and Selected Variables (n=323)

Variable	Knowledge Category		$\chi^2$	OR	95% CI	p-value
	Low No. (%)	High No. (%)				
<b>Age of the respondents</b>						
≤25years	67 (49.3)	69 (50.7)	0.59	1.19	0.76-1.85	0.44
>25years	84(44.9)	103(55.1)				
<b>Religion</b>						
Hindu	139 (46.8)	158 (53.2)	0.04	1.03	0.46-2.29	0.94
Others	12 (46.1)	14 (53.9)				
<b>Occupation</b>						
Housewife	118 (49.2)	122 (50.8)	2.19	1.46	0.88-2.43	0.13
Others	33 (39.8)	50(60.2)				
<b>Educational Status</b>						
Up to Secondary level	57(55.3)	46(44.7)	4.48	1.7	1.03-2.66	0.034
Higher Secondary level	94(42.7)	126(47.3)				
<b>Type of Delivery</b>						
Vaginal	91(45)	111(55)	0.62	0.83	0.53-1.31	0.42
Caesarian	60(49.6)	61(50.4)				

**Table 6:** Association between Respondent’s Level of Practice Regarding EBF and Selected Variables (n=323)

Variable	Practice Category		χ <sup>2</sup>	OR	95% CI	p-value
	Low	High				
<b>Age of the respondents</b>						
≤25years	55(40.4)	81(59.6)	0.001	0.99	0.63-1.55	0.97
>25years	76(40.6)	111(59.4)				
<b>Religion</b>						
Hindu	115(38.7)	182(61.3)	5.16	0.39	0.17-0.90	0.23
Others	16(61.5)	10(38.5)				
<b>Occupation</b>						
Housewife	94 (39.2)	146(60.8)	0.749	0.80	0.48-1.32	0.387
Others	37(44.6)	46(55.4)				
<b>Educational Status</b>						
Up to SLC	39(37.9)	64(62.1)	0.455	0.85	0.52-1.37	0.500
Above SLC	92 (41.8)	128 (58.2)				
<b>Type of Delivery</b>						
Caesarian	61(50.4)	60(49.6)	7.796	1.9	1.21-3.03	0.005
Vaginal	70 (34.7)	132 (65.3)				

**Table 7:** Relationship between Knowledge and Practice of the Respondents about EBF (n=323)

Knowledge and Practice	Correlation	p-value
Knowledge	0.14 <sup>a</sup>	0.012
Practice		

Note. <sup>a</sup>Pearson’s Correlation

### Discussion

Regarding socio-demographic characteristics of the mothers of infants attending the immunization clinic, the mean age was 26.55(±3.8.). Hindus comprised of 92% of the respondents and 60.4% of the respondents belonged to Brahmin/Chhetri caste. More than 68.1% of the respondents had higher secondary level of education and 74.3% of the respondents were housewives. Almost all (98.5%) of the respondents had hospital delivery and 62.5% of the respondents had vaginal delivery.

Regarding knowledge on initiation of breast feeding, 79.6% were aware of the initiation of breastfeeding within one hour of baby’s birth. In contrast to study findings of Shrestha, Bhattarai, Silwal, 2013<sup>9</sup> reported that 48% of the postnatal mother were aware of initiation of breastfeeding. In the same away practice regarding initiation of breastfeeding, 75.5 % of the respondent’s breastfed their children within one hour. Similar study finding of Ulak,Chandyo, Mellander, Shrestha and Strand 2012<sup>10</sup>, shows that 57% of the respondents were initiated breastfeeding within one hour of delivery. NDHS<sup>6</sup> data showed that 45% mothers initiated breastfeeding within 1 hour of childbirth. Concerning colostrums feeding almost all (99.1%)

mothers were aware that colostrums should be fed to the baby. The study done by Joshi, Barakoti and Lamsal, 2012<sup>11</sup> that 74% of the responded was aware about colostrums from various sources.

Regarding pre-lacteal feeding, 79.9% of the respondents correctly avoided giving pre-lacteal feeding to their babies. This finding is similar to that of Khanal, Adhikari, Sauer, and Zhao 2013<sup>12</sup> where 73.5% of mothers reported of not giving prelacteal feeding to their newborn infants. Similar study done by Chaudhary, Shah and Raja 2011<sup>13</sup> that 33% of the mothers gave the pre-lacteal feed to their babies.

More than half (54.8 %) of the respondents in this study had reported of giving breastfeeding to their infants “on demand” during the initial months. This finding is lower than that of the finding of study done by Chudasama, Patel, and Kavishwar, 2007<sup>14</sup> as in their study it is reported that 80% women breastfed their children “On demand”.

In this study most (84.5%) mothers knew the correct meaning of EBF. This finding is similar to the findings of Afrosea, Banua, Ahmeda, and Khanoma<sup>15</sup> as in their study the overall level of knowledge regarding breastfeeding among female garment workers is poor

(88%). Whereas Oche, Umar, Ahmed<sup>3</sup> reported that only 31% of the mothers in their study had adequate knowledge of EBF. In the same way, Timilsina<sup>16</sup> also reported that only 16.7 percent mothers had fair knowledge regarding the breast feeding.

Regarding practice of EBF, 49.5% of the respondents in this study practiced EBF up to 6 months as recommended by world health organization. According to Adhikari, Subedi, 2013<sup>17</sup> showed that 34% of the responded practiced EBF upto six months. Another study done at Kanti Children's Nepal Hospital by Chapagain, 2013<sup>18</sup> reported that 33% of the mothers were practiced exclusive breastfeeding. In contrast to this, the study finding of NDHS (2011)<sup>6</sup> revealed that 70% of children less than six months age were exclusively breastfed.

In this study, there was no significant association between respondent's level of knowledge regarding EBF with selected variables like, age, religion, ethnicity, occupation, and type of delivery. This finding is in accordance with that of Afrosea, Banua, Ahmeda, and Khanoma<sup>15</sup> as in their study also no significant association was found between the knowledge score of breastfeeding with remaining socio-demographic variables like age, marital status.

But there was a significant association between respondent's level of knowledge regarding exclusive breast feeding and educational status ( $p = 0.034$ , OR = 1.7, 95% CI = 1.03-2.66). High level of knowledge regarding EBF was found among the respondents with educational status of above SLC (47.3%) than respondents with educational status of up to SLC (44.7%). Education was significantly ( $p < 0.001$ ) associated with a higher total knowledge score of breastfeeding. Women with secondary level of education had a significantly higher ( $p < 0.001$ ) level of total knowledge score than other categories (illiterate, primary and higher secondary) of education. Further the finding is supported by that of Timilsina, 2014<sup>16</sup>. But this finding is in opposite from that of Chudasama, Patel, Kavishwar, 2007<sup>14</sup> as they reported that median duration of EBF was found more (7 months) for illiterate women than for literate (6 months).

Similarly, there was no significant association between respondent's level of practice regarding exclusive breast feeding with selected variables like, age, religion, ethnicity, occupation, educational status and type of delivery but there was significant association between respondent's level of practice regarding EBF and type of delivery ( $p = 0.005$ , OR = 1.9,

95% CI = 1.2-3). High level of practice regarding EBF was seen more among the respondents with vaginal delivery (65.3%) than respondents with caesarian delivery (49.6%).

This finding is supported by the study conducted by Onah et al., 2014<sup>19</sup> as their study also revealed that mothers who delivered through caesarean section were 0.38 times less likely to exclusively breastfeed their newborn (OR= 0.38, 95% CI= 0.18, 0.84) compared to those who delivered vaginally. Similar finding reported by Zia, Rajieh, Mothhareh & Ahmed, 2008<sup>20</sup> where it was shown that the rate of EBF was significantly lower in the mothers delivered by caesarean section than who delivered vaginally ( 13.4% vs 41.8%).

## Conclusion

On the basis of the study findings, it is concluded that only about half of the mothers tended to have adequate knowledge as well as practice regarding exclusive breast feeding. The relationship between the knowledge and practice EBF seemed to be low. The level of knowledge regarding exclusive breast feeding tended to be higher among the mothers with higher education status. Similarly, the level of practice regarding exclusive breastfeeding tended to be higher among the mothers who had delivered vaginally.

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