

# Baby Feeding Practices and Social Support to Mother after Delivery in Western Region of Nepal: A Bicentric Cross-Sectional, Health Facility Based Survey

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## ABSTRACT

**Introduction:** Exclusive breastfeeding practice for six months of life is very effective intervention for reducing childhood morbidity and mortality and to prevent different forms of childhood malnutrition. But, adherence to exclusive breastfeeding is difficult. Family support after delivery is also very important for the quality life of both mother and baby.

**Materials and Methods:** This was a cross-sectional study conducted in two different hospitals in Pokhara, Western Nepal from July 2017 to July 2018. 1050 mothers who came for hospital visit were interviewed regarding their breast-feeding and complimentary feeding practice

**Results:** During the antenatal visit 86.85% received information on breastfeeding while only 5.14% mothers were given information about the importance of colostrum and 64.57% initiated breastfeeding within one hour of delivery. Exclusive breastfeeding at 0 day was 46%, predominant breast feeding was 5.8% and partial feeding was 47.8% respectively. Four mothers (0.38%) refused to feed breast milk. The association between sex of child and support pattern of relatives during OPD checkup among Aryan families was statistically significant in male child than female child.

**Conclusions:** Exclusive breast feeding for six months is advisable but few mothers practiced this. Although pregnant women were given information regarding breastfeeding during the antenatal visit, very few knew the importance of colostrum, so proper counseling during antenatal visit is necessary. Social support by the husband and his relatives should be done especially when female child is born.

**Keywords:** Exclusive Breast Feeding, Infant, Predominant breastfeeding, Partial feeding, Nepal.

## INTRODUCTION

Breastfeeding prevents different forms of acute and chronic childhood malnutrition, like wasting, stunting, over- and underweight and even the micronutrient deficiencies among children.<sup>1</sup> World Health Organization (WHO) prefers exclusive breastfeeding (EBF) for the first six months of life but people fail to practice this because of various constraints in all part of the world.<sup>2</sup> EBF is important for optimal growth and development of any child irrespective of geographical location.<sup>3</sup> Feeding the baby with bovine milk during first 6 month period is still popular in Nepalese society, which is considered to have negative impact on child health according to researches. Working mothers from high and middle-income family feed powdered milk to their babies which is not only undesirable but may sometimes be harmful for the baby.<sup>4</sup>

Despite having national guidelines and promotional activities for EBF, adherence to it is quite low.<sup>5</sup> Demographic health survey of Nepal 2016 shows the mean total duration of breastfeeding in Nepal is more than two years.<sup>6</sup> Since there are not many studies regarding EBF, mixed feeding and other feeding practices in our region, this study was mainly focused on retrieving information on breastfeeding practices and the factors influencing them.

## MATERIALS AND METHODS

This was a cross – sectional study carried out for a year from July 2017 to July 2018 in outpatient department of two different private hospitals from Pokhara, Nepal. Convenient sampling was done in infants who visited the OPD of these two centers for different medical problems. Neonates and infants up to 6 months were included.

**Inclusion and Exclusion criteria:** Infants with specific feeding problems (cleft lip or palate, congenital heart disease, severe illness during neonatal period) were excluded from the study. Ethical approval was taken from the ethical board of the Maternal and child friendship Hospital, Nepal.

We took written consent from parents or caretakers before asking the questionnaire. The researchers asked a structured questionnaire on breastfeeding practices who also had experience from similar

Medical Journal of Pokhara Academy of Health Sciences Vol. 4 Issue 1 studies, and were accordingly familiar with these types of questionnaires. All forms were checked manually for completeness and consistency. Data entry was done in predesigned proforma and the data was entered into the SPSS spread sheet. Statistical analysis and Chi value was calculated using SPSS 16. P value < 0.05 was considered significant.

Different terms related to breast feeding were defined according to the recent WHO guidelines,<sup>7</sup> which categorize into three groups; exclusive, predominant and partial breastfeeding.

### Exclusive breastfeeding

The infant had received only breast milk from his/her mother or a wet nurse, or expressed breast milk and no other liquids or solids with the exception of drops of syrup consisting of vitamins, mineral supplements or medicines.

### Predominant breastfeeding

The infant's predominant source of nourishment had been breast milk. However, the infant may also have received water and water-based drinks like tea and local herbal drops.

### Partial breastfeeding

When infant's feeding included non-breast milk foods such as animal/powdered/condensed milk and/or solid/ semi-solid food (i.e. cereals, vegetables, fruits, lentils or meat).

## RESULTS

A total of 1050 children attended the OPD during the study period. Eight hundred and fifty children from the first hospital and two hundred children from the second hospital were enrolled in the study.

**Table 1:** General characteristic of mother and infants in Pokhara, Nepal

Characteristics	N(%)
<b>Gender of child</b>	
Male	638(60.77)
Female	412(39.23)
<b>Age of mother</b>	
≤ 25 years	802(76.39)
> 25 years	248(23.61)
<b>Birth weight</b>	

<2.5kg	178(16.95)
≥2.5kg	872(83.04)

Type of delivery	
Vaginal Delivery	777(74)
Cesarean section	273(26)

Education of mother	
Up to class 10	132(12.57)
class 10 and above	918(87.42)

Occupation of mother	
Agriculture	896(85.33)
Other than Agriculture	154(14.66)

**Table 2:** Accompany relatives during checkup in OPD

Sex and Race of baby	No. of child and Accompany relatives during check up	Percentage
<b>When child is male</b>	638	60.76
Aryan Baby-241(37.77)	Father's relative (180) Mother's relative(61)	74.68 25.32
Non Aryan baby-397(62.22)	Father's relative (198) Mother's relative(199)	49.87 50.12
<b>When the child is Female</b>	412	39.23
Aryan baby-276(66.99)	Father's relative (86) Mother's relative(190)	31.15 68.84
Non Aryan baby-136(33.00)	Father's relative (52) Mother's relative(84)	38.23 61.76

**Table 3:** feeding patterns in Pokhara, Nepal

Feeding Practice (n = 1050)	n at 0 day (%)	n at 6 month (%)
Breastfeeding only	483(46.00)	126(12.00) i.e.Exclusive Breastfeeding
Predominant breast feeding	61(05.80)	102(9.71)
Partial feeding	502(47.80)	818(77.90)
Only bottle feeding	4(0.38)	4(0.38)

**Table 4:** Knowledge and factors influencing breastfeeding practice in Pokhara, Nepal

Characteristics	N	(%)
<b>Information on breastfeeding during antenatal visit</b>		
Yes	922	86.85
No	101	9.61
Did not have antenatal visit	27	2.57
<b>Information on importance of colostrum</b>		
Yes	54	5.14
No	996	94.85
<b>Breast feeding within 1 hrs.</b>		
Yes	678	64.57
NO	372	35.43
<b>How long mother thinks only breast milk will be enough for child</b>		
< 6 months	478	45.52
6 months or more	160	15.23
Do not know	412	39.29
<b>Reason for introducing Partial feeding before 6 months (Among 502 babies)</b>		
Crying/hungry	148	29.48
No enough breast milk	196	39.04
Mother's illness	4	0.79

Working mother and others	154	30.67

**Table 5:** Association between sex of child and support pattern of relatives during OPD checkups in Aryans. (n=517)

Relatives accompanied		Chi	df
Sex of child	Total		
Fathers Relatives		116.32	1
Mothers Relatives			
Male	180	< 0.001*	
61	241		
Female	86		
190	276		

In the above table association between sex of child and support pattern of relatives during OPD checkup in Aryan has shown. Sex of child is extremely statistically significant with support patterns of relatives. (  $X^2=116.32$ ,  $df =1$ ,  $p\text{-value}=\text{less than }0.001$ )

**Table 6:** Association between sex of child and support pattern of relatives during OPD checkups in Non-Aryans. (n=533)

Sex of child	Relatives accompanied		Chi	df	p-value
	Fathers Relatives	Mothers Relatives			
Male	198	199	5.42	1	0.0192
397					
Female	52				
84	136				

In the above table association between sex of child and support pattern of relatives during OPD checkup in Non-Aryan has shown. Sex of child is statistically significant with support patterns of relatives. (  $X^2=5.42$ ,  $df =1$ ,  $p\text{-value}=0.0192$ )

**Table 7:** Association between Ethnicity and support pattern of relatives during OPD checkups. (n=1050)

Ethnicity	Relatives accompanied		Chi	df	p-value
	Fathers Relatives	Mothers Relatives			
Aryan	266	251	2.16	1	0.14
517					
Non-Aryan	250				
283	533				

In the above table association between Ethnicity and

Medical Journal of Pokhara Academy of Health Sciences Vol. 4 Issue 1 support pattern of relatives during OPD checkup has shown. Ethnicity is not statistically significant with support patterns of relatives. ( $X^2=2.16$ ,  $df =1$ ,  $p\text{-value}=0.14$ )

## DISCUSSION

Nepal is considered to be a country where the women give birth at very young age. According to Nepal demographic profile 2018, mean age of females giving birth to their first baby is 20.8yrs. Among all mothers who visited in our OPDs 76.39% were below 25 years. The international healthcare community has considered the ideal rate for caesarean sections to be between 10-15%<sup>8</sup> but it is found to be as high as 26% in our study. This might be because private hospitals are mainly looking after affordable patients and many of them prefer to go for caesarean on demand rather than trying for normal delivery. Forty-six percent mothers in our study initiated breastfeeding within 24 hours and were fed with colostrum but exclusive breast feeding was done in 12% only and 94.85% mothers were unaware about the benefits of colostrum. Initiation of breastfeeding after birth, including the proportion who fed colostrum, were high in a study done in Western Nepal in 2007.<sup>9</sup>

Breastfeeding is a communal standard and universal practice in most societies in the world. It is also a learned behavior and may be influenced by many factors including socio-economic, educational level and cultural.<sup>10</sup> “Inadequate breast milk” was the main reason for introducing other foods, like cows or buffalo milk or infant formula before six months of age. Our finding is similar with another breastfeeding study conducted among employed women in peri-urban areas of Kathmandu.<sup>11</sup> In order to improve the prevalence of exclusive breast feeding (EBF), counseling should be done during antenatal visits by mid wife and at regular visits in OPD by gynecologist.

Women experience a range of psychological stress in the postpartum period.<sup>11,12</sup> Psychological stress with verbal gender discrimination to the mother when female baby was born is very unpleasant so social support by the husband’s relative should be given especially when female child is born. Identifying support needs and expectations of new mothers is important for her recovery after childbirth.<sup>13</sup> Future

postpartum depression prevention efforts should integrate a strong focus on social support especially from husband's relatives when a female baby was born. Social support has been shown to be effective in helping women cope with these stressors.<sup>14</sup> Our findings also highlight the importance of social support especially from the relatives of husband when there is female child born among Aryan families in the postpartum period.

### Limitations of the study

Recruitment of infants was from OPD clinic of Om hospital which lies in the center of the city with more focus on LSCS being a referral center. That is why the LSCS percentage were higher than average. This is relatively a smaller study involving only two local hospitals from the surrounding vicinity.

### CONCLUSIONS

Exclusive breast feeding mother for up to six months is still popular according to the National demographic data of Nepal 2016 but it is in decreasing trend as shown in our research. Very few mothers received motivated information on breastfeeding during the antenatal visit almost not at all the importance of colostrum, indicating a need for counseling on exclusive breastfeeding. Psychological stress with verbal gender discrimination to the mother when the female baby born is very painful. So social support particularly by the husband's relative and husband himself should be done especially when female child is born.

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