

## Original research article

## To determine the prevalence and factors associated for faulty feeding on exclusive breast feeding practices of children less than six Months: cross-sectional study

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### Abstract

**Aim:** to determine the prevalence and factors associated for faulty feeding on exclusive breast feeding practices of children less than six Months.

**Material and methods:** This cross-sectional study was done the Upgraded Department of Paediatrics, Patna Medical College & Hospital, Patna, Bihar, India, from October 2015 to October 2016. 200 Lactating mothers who had under six-month infants were included. The WHO Breast Feed observational checklist was used to assess mother and baby's position, infant's mouth attachment, and suckling. According to WHO criteria, four components (i.e. baby body should be straight and slightly extended, baby body close and turned toward the mother, the whole body supported, and baby facing toward the mother's breast) are used to assess the baby's position in relation to the mother's body. We observe the breastfeeding process for five minutes and record as per the WHO breast feed observation form.

**Results:** In our study we had 200 infants of 0-6 month along with their mother as study subjects with mean age of mother being  $26.48 \pm 3.78$ , with range 18-35 yrs. Total 155 infant born was male whereas rest 45 were female, 110 infants were primigravida, 70 had 2nd birth order and rest 20 had higher birth order. In out of 200 study subjects 7 (3.5%) had not initiated breast feeding at all, they were on top feeding, in 33 (16.5%) study subjects initiation of breast feeding was done after 1 day, in 44 (22%) study subjects it was between 1hr-1 day, and in rest 116 (58%) initiation of breast feeding was done within 1 hr. 41 (20.5%) out of 200 infants included in our study were given colostrum whereas rest 159 (79.5%) infants were not given colostrum. 114 (57%) study subjects were given exclusive breast feeding, 70 (35%) study subjects were given exclusive breast feeding only for some period and rest 16 (8%) had not given exclusive breast feeding since birth.

**Conclusion:** The Exclusive Breast Feeding was satisfactory (57%). Some basic reason for faulty feeding were mothers' belief that no milk, insufficient milk, baby is sick, mother is working/studying.

**Keywords:** Prevalence, Exclusive breast feeding, Faulty feeding

### Introduction

Breastfeeding (BF) is a matter of concern in both developed and developing countries, because it has a wide range of benefits for infants as well as mothers. Breast milk is the first natural food for babies. It not only provides infants with the nutrients they need for health and development but also breastfeeding can make a significant reduction for all causes mortality and morbidity due to overall infections, such as gastrointestinal and respiratory tract infection.<sup>1-</sup>

<sup>4</sup> The long-term benefits of breastfeeding for infants are also reported that it can promote

cognitive development and increase educational attainment in adulthood<sup>5,6</sup>, and protect infants against chronic diseases such as overweight, obesity, and diabetes in their later life.<sup>7</sup> Additionally, breastfeeding contributes to the health and well-being of mothers. It helps to increase the duration of lactational amenorrhoea and reduce the risk of ovarian carcinoma, breast cancer and type 2 diabetes mellitus.<sup>8,9</sup> Based on the benefits of breastfeeding, World Health Organization (WHO) recommended that all infants should be exclusively breastfed for the first six months of life since 2001.<sup>10</sup> Only 37% of infants younger than six months were exclusively breastfed in low-income and middle-income countries.<sup>11</sup> Although the prevalence of exclusive breastfeeding (EBF) increased slightly from 24.9% in 1993 to 35.7% in 2013<sup>11</sup>, this is far from the target as for 2025 to increase the prevalence of EBF in the first six months up to at least 50% set by the 56th World Health Assembly.<sup>12</sup> To increase the prevalence of EBF, it is vital to identify factors associated with EBF in order to do active support for establishing and sustaining appropriate breastfeeding practices. Some reviews have already reported that the determinants of breastfeeding is multi-dimensional, including socioeconomic, culture, social attitudes and values, legal and policy directives, woman's work and employment conditions, health-care services and individual factors.<sup>13-15</sup> The low prevalence rate of exclusive breast feeding in India like other developing countries may be due to various maternal, social, religious and child-related factors such as social environment, gender of the child, age of the child, number of births and space between two children, working mother, maternal age and educational level, socio-economic status, mothers' domestic work burden, access to mass media, maternal access to health care facilities, and maternal knowledge regarding importance of infant and young child feeding practices.<sup>16</sup> the aim of the present study was to determine the prevalence and factors associated for faulty feeding on exclusive breast feeding practices of children less than six Months.

### **Material and methods**

This cross-sectional study was done the Upgraded Department of Paediatrics, Patna Medical College & Hospital, Patna, Bihar, India, from October 2015 to October 2016. after taking the approval of the protocol review committee and institutional ethics committee.

### **Methodology**

200 Lactating mothers who had under six-month infants were included. Those mothers who were seriously ill and unable to breast feed their new-born, whose infants were critically ill and neonates with major congenital cleft lip and cleft palate, were excluded from the study.

A structured observational checklist and interviewer-administered questionnaire were prearranged after reviewing previous literature. The tool comprises socio-demographic, maternal and infant characteristics. The WHO Breast Feed observational checklist was used to assess mother and baby's position, infant's mouth attachment, and suckling. According to WHO criteria, four components (i.e. baby body should be straight and slightly extended, baby body close and turned toward the mother, the whole body supported, and baby facing toward the mother's breast) are used to assess the baby's position in relation to the mother's body. Likewise, attachment of the baby to the breast was assessed by four components: more areola is visible above the baby's upper lip, the baby's mouth is wide open, the baby's lower lip is turned outward and the baby's chin is touching or almost touching the breast. Furthermore, suckling was assessed by three components: slow sucks, deep suckling and sometimes pausing. We observe the breastfeeding process for five minutes and record as per the WHO breast feed observation form. The observation was done by asking the mother to put her infant to the breast. When the infant was fed in the previous hour, the mother was kindly asked to stay away for a few minutes and observation of the breastfeeding technique was done during the next

time when the baby was ready to feed. Data collection, supervision was carried out on a daily basis throughout the study period.

### Results

In our study we had 200 infants of 0-6 month along with their mother as study subjects with mean age of mother being  $26.48 \pm 3.78$ , with range 18-35 yrs. Out of the total 200 subjects 10 (5%) were illiterate, 21 subjects have done primary education (10.5%). People who did high school make great majority of 97 subjects (48.5 %). Higher secondary school level education contributes to 23.5% with 47 subjects and college level 12.5 % with 25 subjects. Out of 200, only 32 are working whereas rest 168 were home maker.

**Table 1: Demographic profile**

Education status	Number of patients	Percentage
illiterate	10	5
primary education	21	10.5
high school	97	48.5
Higher secondary school	47	23.5
Graduate and above	25	12.5
<b>Working status</b>		
Working	32	16
Non working	168	84
<b>Age</b>	26.48 $\pm$ 3.78mean	

Total 155 infant born was male whereas rest 45 were female, 110 infants were primigravida, 70 had 2nd birth order and rest 20 had higher birth order.

**Table 2: Gender distribution of infant**

Gender	Number of infant	Percentage
Male	125	62.5
Female	75	37.5

In out of 200 study subjects 7 (3.5%) had not initiated breast feeding at all, they were on top feeding, in 33(16.5%) study subjects initiation of breast feeding was done after 1 day, in 44 (22%) study subjects it was between 1hr-1 day, and in rest 116 (58%) initiation of breast feeding was done within 1 hr. 41 (20.5%) out of 200 infants included in our study were given colostrum whereas rest 159 (79.5%) infants were not given colostrum. In this present study 114 (57%) study subjects were given exclusive breast feeding, 70 (35%) study subjects were given exclusive breast feeding only for some period and rest 16 (8%) had not given exclusive breast feeding since birth.

**Table 3: Distribution of breast feeding and bottle habit**

Parameter	Number of patients	Percentage
Given exclusive breast feeding	114	57
Breast feeding only for some period	70	35
Not given exclusive breast feeding since birth	16	8
<b>Bottle habit</b>		
Bottle feeding habit	89	44.5
Not bottle feeding habit	111	55.5

In this study 89 (44.5%) study subjects had bottle feeding habit, whereas rest 111 (55.5%) do not had bottle feeding habit.

**Table 4: Reason for stopping breast feeding**

Reason for stopping breast feeding	No	%
No milk	115	57.5
Baby is sick	10	5
Inadequate milk secretion	13	6.5
Knowledge about weaning	25	12.5
Misconception	21	10.5
Next conception	5	2.5
Working/studying	5	2.5
Baby refused	6	3
Total	200	100

Table 4 shows various reasons for stopping breast feeding. 57.5% mothers claimed No milk secretion as a reason for stopping breast feeding, 6.5% claimed inadequate milk secretion, 10.5% had some type of misconception regarding breast feeding, 5% say they stopped breastfeeding because her child was sick, 12.5% had wrong information about weaning, 2.5% had newconception, 2.5 % mother give irregular breastfeeding as they are working/studying and in 3% cases baby refused.

### Discussion

In this study, mean age of mother being  $26.48 \pm 3.78$ , with range 18-35 years, the mean age also falls within the reproductive age of mothers who are willing to breastfeed exclusively. Other similar studies such as by Mohammad AA et al<sup>17</sup> shows majority of the mothers were between 25-34 years of age. Chhetri et al shows the mean age of the mothers was 28 years.<sup>18</sup> In present study Out of the total 200 subjects 10 (5%) were illiterate, 21 subjects have done primary education (10.5%). People who did high school make great majority of 97 subjects (48.5 %). Higher secondary school level education contributes to 23.5% with 47 subjects and college level 12.5 % with 25 subjects. Education plays a significant role in determining the duration of breastfeeding because increasing level of education implies the acceptance and readiness of mothers to provide the optimal nutrition for the infants through exclusive breastfeeding. This study showed that majority attained high school level. In other study such as Chaudhary et al shows 41.2% study subjects were graduate and none of them were illiterate. Evangelista JKC et al shows 85% were college passed. In study by Mohamed et al Majority of the mothers that participated in the study, two hundred twelve (55.2%) have no formal education.<sup>19-22</sup> In the present study in out of 200 study subjects 7 (3.5%) had not initiated breast feeding at all rest 193 (96.5%) had started breast feeding which is almost like universal, but colostrum was received only by 20.5% babies which is below the national (55%) average. When asked to specify the reason why they considered colostrum “as not good for health,” the mothers could not specify any particular reason and informed that this information was passed to them through their mothers/mother-in-law. The 58% initiation of breastfeeding within 1 h of birth was more than the corresponding national average (24.5%), which is almost similar to study by Dharini et al shows that only 87.1% of mothers-initiated breastfeeding at once after birth and 12.9% after 24 hours.<sup>23</sup> The delay in initiation of BF was mainly due to delivery by caesarean section. Similar result was found by Pandey et al.<sup>21</sup>

In present study 57.5% mothers claimed No milk secretion as a reason for stopping breast feeding, 6.5% claimed inadequate milk secretion, 10.5% had some type of misconception regarding breast feeding. Study by Chetri et al around 51% of them attributed early return to work as a major barrier to EBF.<sup>18</sup> Other reasons included inadequate breast-milk secretion, poor weight gains of the baby in spite of breast feeding and long distance from home to workplace.<sup>24,25</sup> In this present study the exclusive breast feeding does not depends on socioeconomic status of mothers. Similar findings were seen in other studies such as by

Chudasama et al which shows socio-demographic factors did not show association with exclusive breastfeeding practice.<sup>26</sup> This may be due to fact that proper counselling not the socioeconomic status affects the habit.<sup>16</sup> shows educational level of the mother, average family monthly income, sex of the child, ANC visit, and support from husband were identified as statistically significant factors for exclusive breastfeeding practice. The association found in this study might be due to the role of education in improving awareness about EBF practice and increasing health seeking behaviours like attending an ANC visit.

### Conclusion

The Exclusive Breast Feeding was satisfactory (57%). Some basic reason for faulty feeding were mothers' belief that no milk, insufficient milk, baby is sick, mother is working/studying.

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Received :19-08-2020 Revised: 20-09-2020. Accepted:22-10-2020