

Original Research Article

Prevalence of exclusive breastfeeding and factors associated with faulty feeding in southwest Bihar

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ABSTRACT

Background: Exclusive breastfeeding has been defined by WHO as “When an infant has been given only breast milk from his/her mother or a wet nurse or expressed breast milk during first six month of life and no other liquids/solids except necessary medicine and nutritional supplements in form of drops or syrup”. Aim was to Assess the prevalence and factors associated for faulty feeding on exclusive breast feeding practices of children less than six Months.

Methods: An institution-based cross-sectional survey was conducted from May 2020 to October 2020 at Narayan medical college, Jamuhar, Rohtas, South Bihar. All mothers who visited for immunization and/or postnatal care services were considered as the study population. Lactating mothers who had under six-month infants were included. We observe the breastfeeding process for five minutes and record as per the WHO B-R-E-A-S-T feed observation form. The observation was done by asking the mother to put her infant to the breast.

Results: In this present study 58.5% study subjects were given exclusive breast feeding, 36.25% study subjects were given exclusive breast feeding only for some period and rest 5.25% had not given exclusive breast feeding since birth. In this study 46% study subjects had bottle feeding habit, whereas rest 54% do not had Bottle feeding habit.

Conclusions: The Exclusive Breast Feeding was satisfactory (58.5%). 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

Exclusive breastfeeding (EBF) has been defined by WHO as “when an infant has been given only breast milk from his/her mother or a wet nurse or expressed breast milk during first six month of life and no other liquids/solids except necessary medicine and nutritional supplements in form of drops or syrup”. EBF for the first six months of infants’ life is a cost effective measure, which is very important in preventing severe malnutrition in childrens and saving children’s lives, which is recommended by the world Health Organization and UNICEF. With Universal coverage of exclusive breastfeeding 90%, 13% to 14% death of infants and young children less than five years of age can be prevented in low and middle income countries.¹

Children are considered as one of the vulnerable or special risk groups for malnutrition and infections. The risk is connected with growth, development, and survival in infants and children. Given the magnitude of child undernutrition indeveloping countries like India, one of the key preventive measure is the promotion of infant and young child feeding practices. The first 2 years of life are considered a “critical window of opportunity” for the prevention of growth faltering. Optimal breastfeeding and complementary feeding practices together allow children to reach their full growth potential.²

Rapid industrialization, changes in lifestyle and other socio-cultural practices have been found to be the major factors influencing the breastfeeding practices across the nation.⁶ Although maternal employment plays a major

role in the modern society there has not been enough evidences to support working mothers in promoting EBF policies at work. This may contribute to ineffective breastfeeding practices.³

The 'baby friendly hospital initiative' (BFHI) has been proposed with the aim to promote breastfeeding, with due attention to infant feeding practices. A German study has demonstrated that the feeding practices are variable even in the designated 'baby friendly hospitals'.⁴

Unhealthy and inadequate complementary feeding practices and lack of exclusive breastfeeding has been found to be associated with risk of developing malnutrition in the first 2 years of life. A large proportion of children can develop conditions like cognitive impairment and stunting. A recent analysis shows that suboptimal breastfeeding practices contributes to 11.6% under five mortality in children (WHO, 2014).⁵

Despite the many benefits of breastfeeding, however, a national survey in the United States in 2014 found that 79% of children had been breastfed, 41% of mothers were exclusively breastfeeding at 3 months, and only 18% were exclusively breastfeeding at 6 months. In Singapore, only 21% of children were breastfed at 6 months in 2001, and less than 5% of children were exclusively breastfed, although the survey indicated that nearly 90% of the mothers understood that breastfeeding was the best nutrition for infants and 95% reported that they attempted to breastfeed. Therefore, it is very important to study why mothers stop breastfeeding and what are the risk factors related to early termination of breastfeeding. Previous studies indicated that breastfeeding was associated with hospital breastfeeding practices, maternal social-demographic characteristics, biomedical, environmental-support, and psychosocial factors as well as maternal perception.¹³ Moreover, the reasons for early termination of breastfeeding include sore nipples, perception of inadequate milk supply, return to work, maternal depression, and lack of confidence in their ability to breastfeed.⁶

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.⁷

Aim and objectives

To Assess the prevalence and factors associated for faulty feeding on exclusive breast feeding practices of children less than six Months.

METHODS

An institution-based cross-sectional study was conducted from May 2020 to October 2020 at Narayan medical college, Jamuhar, Rohtas, South Bihar. All mothers who visited Narayan medical college, Rohtas for immunization and/or postnatal care services were considered as the study population. Lactating mothers who had under six-month infants were included. Those mothers who were seriously ill and unable to breastfeed their new-born, whose infants were critically ill and neonates with major congenital cleft lip and cleft palate were excluded from the study. Sample size was calculated based on the prevalence of exclusive breast feeding which is 54.9% among Indian infant of 0-6 month as per study by Roy et al (prevalence of exclusive breastfeeding and knowledge related to breastfeeding among mothers attending immunization centre and well-baby clinic) so the required sample size was 382, we had considered 400 sample size for this study.¹¹

Data collection

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 B-R-E-A-S-T-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 B-R-E-A-S-T 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 400 infants of 0-6 month along with their mother as study subjects with mean age of mother being 25.90 ± 3.50 , with range 20-33 yrs.

Out of the total 400 subjects 12 (3.0%) were illiterate, 36 subjects have done primary education (9.0%). People who did high school make great majority of 177 subjects (44.25 %). Higher secondary school level education contributes to 22.5% with 90 subjects and college level 21.25 % with 85 subjects.

Out of 400, only 29 is working whereas rest 371 were home maker. As far as desirability for child is concerned, 390 out of 400 had desirable pregnancy in our study subjects.

Total 207 infant born was male whereas rest 193 were female, 212 infants were primigravida, 156 had 2nd birth order and rest 32 had higher birth order.

In out of 400 study subjects 12 (3%) had not initiated breast feeding at all, they were on top feeding, in 62(15.5%) study subjects initiation of breast feeding was done after 1 day, in 93 (23.25%) study subjects it was between 1hr-1 day, and in rest 233 (58.25%) initiation of breast feeding was done within 1 hr. 86 (21.5%) out of 400 infants included in our study were given colostrum whereas rest 314 (78.5%) infants were not given colostrum.

In this present study 234 (58.5%) study subjects were given exclusive breast feeding, 145 (36.25%) study subjects were given exclusive breast feeding only for some period and rest 21 (5.25%) had not given exclusive breast feeding since birth.

In this study 184 (46%) study subjects had bottle feeding habit, whereas rest 216 (54%) do not had bottle feeding habit.

Table 1: Reason for stopping breast feeding.

Reason for stopping breast feeding	No	%
No milk	238	59.5
Baby is sick	19	4.75
Inadequate milk secretion	22	5.5
Knowledge about weaning	48	12
Misconception	42	10.5
Next conception	10	2.5
Working/studying	6	1.5
Baby refused	15	3.75
Total	400	100

Table 1 shows various reasons for stopping breast feeding. 59.5% mothers claimed No milk secretion as a reason for stopping breast feeding, 5.5% claimed inadequate milk secretion, 10.5% had some type of misconception regarding breast feeding, 4.75% say they stopped breastfeeding because her child was sick, 12% had wrong information about weaning, 2.5% had new conception, 1.5 % mother give irregular breastfeeding as they are working/studying and in 3.75% cases baby refused.

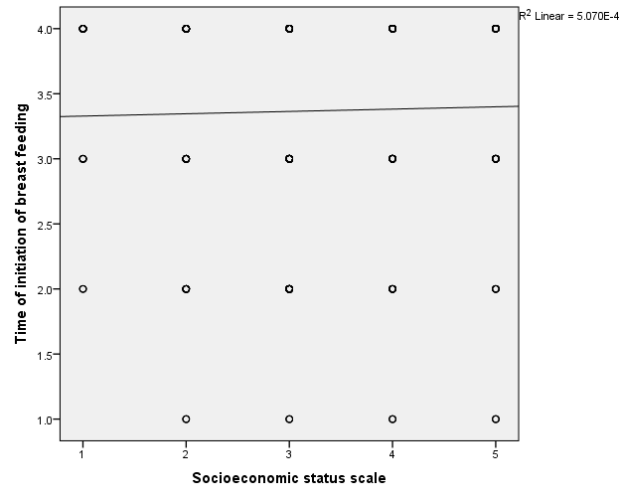


Figure 1: Correlation of time of initiation of breast feeding to socioeconomic conditions.

Figure 1 shows correlation of time of initiation of breast feeding to socioeconomic conditions, we found almost no correlation with R square 0.001, if we do multivariate analysis for effect of age of mother, education of mother, socioeconomic condition, desirability for child, sex of child, on time of initiation of breast feeding, we found very weak correlation with R square 0.011.

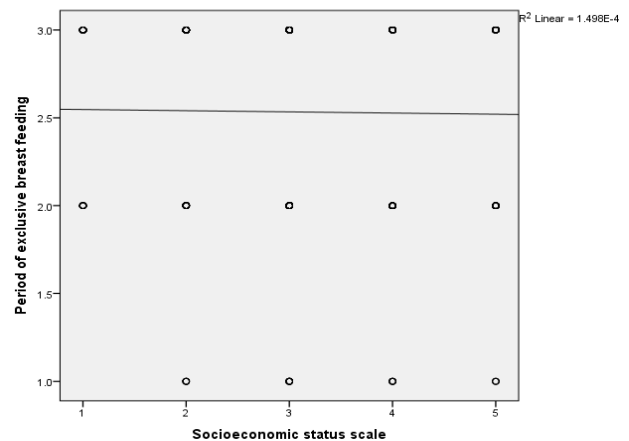


Figure 2: Correlation of period of exclusive breast feeding to socioeconomic conditions.

Figure 2 shows correlation of period of exclusive breast feeding to socioeconomic conditions, we found no correlation with R square 0.00, if we do multivariate analysis for effect of age of mother, education of mother, socioeconomic condition, desirability for child, sex of child, on period of exclusive breast feeding, we found very weak correlation with R square 0.006.

DISCUSSION

In this study, mean age of mother being 25.90±3.50, with range 20-33 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 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.³

In present study out of the total 400 subjects 12 (3.0%) were illiterate, 36 subjects have done primary education (9.0%). People who did high school make great majority of 177 subjects (44.25 %). Higher secondary school level education contributes to 22.5% with 90 subjects and college level 21.25 % with 85 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.⁸⁻¹¹

In the present study in out of 400 study subjects 12 (3%) had not initiated breast feeding at all rest 388 (97%) had started breast feeding which is almost like universal, but colostrum was received only by 21.5% 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 58.25% 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.¹⁶ The delay in initiation of BF was mainly due to delivery by caesarean section. Similar result was found by Pandey et al.¹⁰

In present study 59.5% mothers claimed No milk secretion as a reason for stopping breast feeding, 5.5% 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.³ 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.^{12,15}

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.¹⁴ This may be due to fact that proper counselling not the socioeconomic status affects the habit.⁷ 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 studymight be due to the role of education in improving awareness about EBF practice and increasing health seeking behaviours like attending an ANC visit.

Limitations

Limitations are the results from our study may not be generalized since the rates of EBF vary significantly between different states, small sample size and only one centre study, preferably multicentric study, is required to detect the effects of other potential variables.

CONCLUSION

In present study we conclude that although practice of Exclusive Breast Feeding was satisfactory (58.5%), however there is definite scope for further improving the practices of EBF. Some basic reason for faulty feeding were mothers’ belief that no milk, insufficient milk, baby is sick, mother is working/studying. Which helped understand the faulty feeding practices that will definitely help in framing an information education and Counselling and behaviour change communication strategy.

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