

Constrains of Exclusive Breast Feeding among First Time Middle and High Income Group Mothers

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Abstract

Breast feeding is the optimum form of infant nutrition. Breast milk fully meets the requirements of the infant in the first few months of life. The objective of the study was to assess the factors that limit the mother to practice exclusive breast feeding. **Material and Methods:** 200 first time mothers belonging to middle and high income group families were enrolled for the study using purposive sampling method. A pretested semi-structured open ended questionnaire was used to collect data. An informal interview method was used to gather information about breast feeding practices. **Results:** 187 mothers breast fed their babies and 13 mothers never breast fed their babies. Amongst mothers who were breast feeding their babies, 35% mothers were practicing exclusive breast feeding (EBF), 35% mothers practiced Predominant Breast Feeding and 30% mothers practiced Mixed Breast Feeding. Mode of delivery significantly affected the exclusive breast feeding rates and time of initiation of breast feeding ($P < 0.05$). **Conclusion:** Initiation and continuation of breastfeeding is influenced by a complex interplay of culture, social support, and socioeconomic status. The erosion in the value of breastfeeding, lack of accurate and unbiased information on optimum infant feeding practices, and inadequate support to breastfeeding mothers are some of the factors responsible for poor rates of infant feeding practices.

Keywords: Breast feeding practices; Exclusive breast feeding; Breast milk, Bottle feeding.

Introduction

Breastfeeding is the optimal form of infant nutrition. Breast milk fully meets the requirements of the infant in the first few months of life. It contains antimicrobial factors that provide protection against diarrheal diseases and respiratory infections. Early initiation of breast feeding is important as early breast milk contains all essential nutritive and immunological factors and ensures the development of oxytocin reflexes. The beneficial effects of breastfeeding depend on breastfeeding initiation, its duration, and the age at which the breast-fed child is weaned. It has been rightly said that breast feeding acts as first immunization.[1]

For newborn infants, the World Health Organization (WHO) and United Nations International Children's Emergency Fund (UNICEF) endorse breastfeeding as an integral part of the reproductive process, the natural and ideal way of providing complete nutrition, and a process that provides a unique biological and emotional basis for child development.

As a public health measure, the Global Strategy for Infant and Young Child Feeding jointly developed by WHO and UNICEF recommend initiation of breastfeeding within an hour of birth and exclusive breastfeeding for six months for all infants.[5] This position was reaffirmed in 2011. For a child to be exclusively breastfed there should be no prelacteal intake of anything solid or liquid other than breast milk, medications or vitamins. Giving a child any amount of water, gripe water, juice or porridges not considered "exclusive breastfeeding." This recommendation is worldwide, applying to infants of mothers in low- as well as high-income countries.[2]

Adequate breastfeeding could save many

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young lives. Breast feeding is the object of research worldwide, considering the various aspects of breast milk and breast feeding. Despite all the scientific advancement and dissemination of the superiority and advantages of human milk, breast feeding rates are below recommended. Globally less than 40% of infants under six months of age are exclusively breastfed. In India 51% of the mothers will not give colostrum to the newborn soon after birth.[3] According to NFHS-3 survey, in India, 46% of the under 3 year of age children are underweight and 38% are stunted.[4] Lack of exclusive breast feeding and improper breast feeding is one of the major contributory factors for this high prevalence of malnutrition and its associated morbidities and mortality. Promotion of exclusive breast feeding practices for the first six months of life is one of the most effective interventions for reducing infant morbidity and mortality.[5]

The probability of initiating breast feeding is a complex function of individual, social, cultural and clinical factors. Poor implementation on importance of breast feeding and lack of adequate professional training in breast feeding promotion strategies as well as inadequate practices in maternities and neonatal units as well as doctor clinics have been proposed as a barrier for optimal breast feeding rates.[6]

Breast-feeding improves the health and development of both the mother and infant. Therefore, assessment of feeding soon after birth is crucial with regard to infant growth and development and prevention of diseases in adulthood.[7] Healthcare providers working with mothers and infants should understand the patterns of growth and development of exclusively breast-fed infants, correctly assess the effectiveness of breast-feeding, and provide continuous support so that both the mother and infant benefit from breast-feeding.[8] For having a good practices related to breast feeding and to save the many infant lives, it is essential to have proper knowledge regarding the breast feeding practices. The main objective to conduct this

research was to find out the factors that hinder the rates of exclusive breast feeding and also to assess the need of health care workers in lactation management counseling in antenatal and post natal period.

Methodology

Present study was carried out at the pediatric clinic in Indore city, Madhya Pradesh. Mothers who came for regular check up of their babies younger than 6 months of age were taken as sample for the study. Subjects were selected using purposive sampling method. 200 First time mothers were enrolled for the study with their consent. Mothers belonging to middle and high income group families participated in the study.

A pretested semi-structured open ended questionnaire was used to collect data. An informal interview method was used to gather information about breast feeding practices. Questionnaire was filled by the interviewer. During the interview English as well as Hindi language was used.

Questions related primarily to demographic characteristics such as mother's age, occupation, type of family, bottle feeding practices time of initiation of breast feeding, prelacteal feeding practices were recorded under quantitative data. Responses such as how to assess a breast feed or top feed, reason for introducing other milk etc., were recorded under qualitative data.

Exclusion criteria- Mothers of infants who were born premature, Very Low Birth Weight Baby, infant suffering from inborn error of metabolism or primary lactose intolerance was not included in the study.

Working Definition

1. *Exclusive Breast Feeding (EBF)*: An infant receives only breast milk from his or her mother or a wet nurse or expressed breast milk, and no other liquids or solids not even water. The only exceptions

include administration of oral rehydration solution, oral vaccines, vitamins, mineral supplements or medicines.

2. *Predominant Breast Feeding (PBF)*: Proportion of infants 0-5 months of age who receive breast milk as the predominant source of nourishment but also receive other fluids except non human milk.
3. *Mixed Breast Feeding (MBF)*: Proportion of infants 0-5months of age who receive both breast milk as well as other milk for feeding.
4. *Timely initiation of Breast Feeding*: Baby must be put to breast within half an hour of normal delivery and within four hours after C-Section delivery. Any Prolactal feed should not be given.

The qualitative and quantitative strands of data were analyzed separately. Data was analyzed using SPSS 21 Software. Mean and percentage was used. For Chi Square test p value of < 0.05 was considered as significant.

Results

The mean age of respondents was found to be 26 years (range 24-32 years). All mothers were first time pregnant mothers belonging

Table 1: Demographic Characteristics

Variables	Frequency
Mother's Education	
• Post Graduate	56
• Graduate	127
• Under Graduate	17
Mother's Occupation	
• Housewife	151
• Working	49
Family type	
• Nuclear	106
• Extended	94
Type of delivery	
• Normal delivery	113
• C-section delivery	87

Table 2: Mode of Delivery * Type of Breast Feeding

Type of delivery	Type of breast feeding			
	Exclusive BF	Predominant BF	Mixed BF	Never BF
Normal delivery	63	23	26	1
C- Section Delivery	6	36	33	12

Chi square value 57.64, p<0.05

to middle income and high income group families. Amongst mothers, 44% mothers had C- Section delivery whereas 56% mothers delivered their babies through normal delivery. Other demographic characteristics are shown in Table 1.

Breast milk is the natural nutrition for all children. 187 mothers breast fed their babies and 13 mothers never breast fed their babies. Amongst mothers who were breast feeding their babies, 35% mothers were practicing exclusive breast feeding (EBF) whereas 30% mothers were offering breast milk and other milk to infants. 35% mothers were practicing predominant breast feeding (PBF). Out of 87 mothers, who delivered their babies through C-Section, only 6% mothers practiced EBF till 6 months of age, whereas 41% mothers practiced PBF. On the other side, 113 mothers had normal delivery, out of which 56%

Table 3: Mode of Delivery * Feeding Top Milk First 3 Days

Type of delivery	Feeding Other milk first 3 days post delivery	
	Yes	No
Normal Delivery	44	69
C- Section Delivery	81	75

Chi Square - 61.53 (p<0.05)

Table 4: Reason for Giving Other Milk First 3 Days

Reasons (n = 131)	Percent (n)
Milk not sufficient	43 (56)
Elders advise	34 (44)
Hospital advises	13 (17)
Pain in stiches	5 (6)
C- Section delivery	5 (6)

Table 5: Type of Family* Type of Breast Feeding

Type of Family	Type of breast feeding			
	Exclusive BF	Predominant BF	Mixed BF	Never BF
Nuclear Family	32	35	31	8
Extended Family	37	24	28	5

Chi Square- 2.547 p> 0.05

Table 6: Reason for Giving Top Milk

Reason for giving other milk now (n = 72)	Percentage (n)
Not sufficient milk	46 (33)
Convenience	8 (6)
force by family members	6 (4)
Working	28 (20)
Baby cries a lot	12 (9)

Table 7: Assessing Breast Feeding and Top Milk

Assessing breast feeding/top feeding (n = 200)	Percentage (n)
Stops Feeding	48 (95)
Don't know	22 (44)
Sleeps while sucking	5 (10)
Stops crying	11 (23)
Weight gain	1 (3)
Fixed amount	13 (25)

mothers practiced EBF. 23% mothers preferred giving both breast milk and other milk to their infants. Hence it was found that type of delivery significantly affects the breast feeding practices (P< 0.05) (Table 2).

Many mothers and her family practice giving either cow's milk or formula milk during first 3 days of delivery. most common explanation given by mothers for introducing other milk apart from breast milk was " Not sufficient milk for babies" (43%) and "advised by elders in the family" (34%)(Table 3). 13%

mothers offered top milk because hospital staff recommended. Mothers who had C-Section delivery were more likely to give top milk other than breast milk. None of the mothers were giving any pre lacteal feeds (Table 4).

Time of initiation of breast feeding post-delivery plays a very important role. 59% mothers initiated breast feeding within one hour of birth whereas 23% mothers initiated breast feeding after 12 hours of delivery. Nearly 50% mothers who had C- Section

Figure 1: Mode of Delivery* Initiation of Breast Feeding

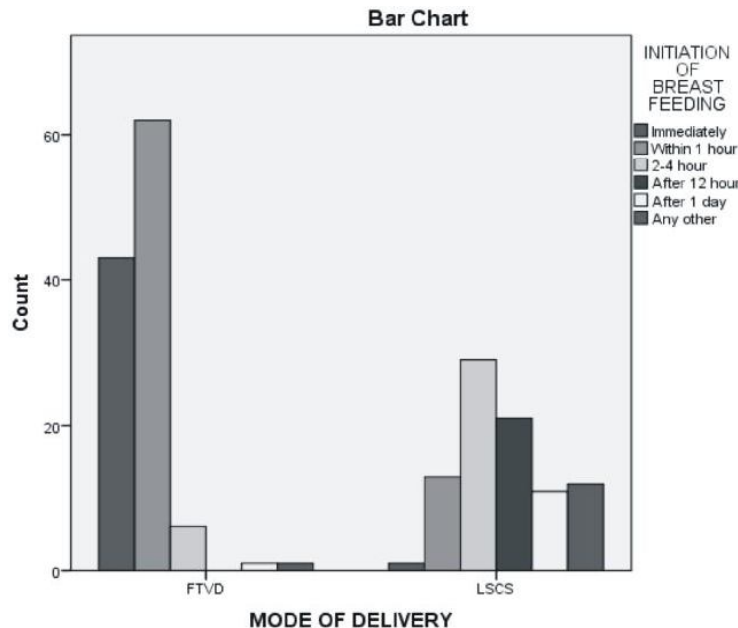


Table 8

Parameters	Percentage (n)
Bottle feeding (n = 200)	
• Yes	32 (63)
• No	68 (137)
Sterilization of bottle (n = 63)	
• Yes	84 (53)
• No	10 (16)
Material of bottle nipple (n = 63)	
• Food grade Plastic	73 (46)
• Silicon	27 (17)
Counseling received regarding BF (n = 200)	
• Yes	34 (67)
• No	66 (133)
Feel the need of counseling (n = 200)	
• Yes	68 (136)
• May be	27 (55)
• No	5 (9)
Reason for using bottle for feeding (n = 63)	
• Convenience	43 (27)
• Family advises	6 (4)
• Less work	11 (7)
• Accepts well from bottle	40 (25)

delivery initiated breast feeding after 4-6 hours of delivery. The type of delivery (normal or C-Section) significantly affects the timely introduction of breast feeding to babies ($p < 0.05$) (Figure 1).

83% mothers interviewed belonged to nuclear family whereas 47% mothers stayed in joint or extended family. It was observed that type of family did not have a significant effect on breast feeding practices ($p > 0.05$).

Amongst mothers who were giving top milk other than breast milk, cow's milk (56%) was the preferred milk followed by infant formula milk (32%). During the informal interview, mothers were questioned "why they offered top milk to their infants or why didn't they continue EBF". 49 mothers were employed or working out of home and preferred giving top milk since they had no option. Also perception of not producing sufficient milk for the baby was another reason quoted by mothers for introducing top milk. (Table 6).

Respondents were also asked about the signs or indicators by which they assess whether breast milk or top milk was enough for her child. According to 48% mothers when

"baby stops sucking on breast means milk was enough for the child". "Infant stops crying" (12%) and "sleeps while sucking" (5%) were also recorded (Table 7).

32% mothers were using bottle to feed their babies. 46 mothers were using food grade plastic nipple while 17 mothers were using silicon nipples for bottle feeding. Convenience and accepts well from bottle were the main reason for using bottle as feeding source (Table 8).

Breast feeding education to mothers is one of the most important factor which will enhance correct breast feeding practices. 67% mothers did not receive any counseling regarding breast feeding during antenatal or postnatal period. 68% mothers felt that proper education regarding infant and young child feeding would have been helpful whereas 28% mother were not sure regarding the same (Table 8).

Discussion

In our study only 35% mothers were

practicing exclusive breast feeding. Several studies have stressed the importance of exclusive breastfeeding during the first six months of infant life and its social, economic and health benefits. Out of 287 mothers selected for this study, 174 (61%) exclusively breastfeeding until six months after delivery.[9] Among the 593 infants in this study, 24.1% had complimentary feeding since birth, and only 10 mothers exclusively bottle-fed their infants (1.7%). About a quarter of the infants were exclusively breastfeeding and about half of them were predominantly breastfed since birth. The percentage of infants who were either exclusively or predominantly breastfed for or 6 month was calculated, the results showed that 7.4% (n=44) of the infants were exclusively breastfed for 4 months while only 1.9% (n=11) breastfed exclusively for 6 months. Moreover, the percentage of infants who were predominantly breastfed for 4 months was 18.0, and the percentage of infants who were predominantly breastfed for 6 months was 7.1%.[10]

Most of the mothers studied (50.0%) initiated breast feeding with in 1 hour of birth and 23.4% could initiate breast feeding within 2-6 hours and others (26.6%) delayed beyond 6 hours. The timely first suckling rate was 0.53. Median time at initiation of breast feeding was found to be 2 hours. In the present study, the ever breast-fed rate was 100%. No milk production (45.2%), followed by caesarian section (28.6%) and advice of elderly person of the family (14.3%) were mainly found to be responsible for the delay in initiating the breast feeding.[11]

In our study, only 6% mothers practiced EBF who had C-Section delivery. Nearly half of the mothers initiated breast feeding after 4-6 hours of delivery. The type of delivery plays a role in the initiation of breast milk. The women who underwent C-section have delayed the initiation of breast milk when compared to the women who delivered normally. Thus, these two factors clearly show statistically significant association with the initiation of breast milk.[11] Factors that influenced the breastfeeding period were: new pregnancy,

work demands (gardening, marketing, housework, and professional careers), child choice, needing to go back to their studies, and family problems.[12]

According to Manjunath *et al* Bottle feeding is in vogue.[13] 32% mothers were using bottle to feed their babies. Although bottle feeding is widely practiced and accepted in western world, in the developing countries this practice should not be encouraged due to the associated risks of infections and contaminations of the feeds. The introduction of bottle leads to nipple confusion and the maternal milk output begins to decrease prematurely. According to Collins *et al*, feeding bottle interferes with breast feeding success. Bottles may interfere with establishing successful breastfeeding, possible because of the difference in the suckling action required for breast versus an artificial nipple .[14]

Percentage of mothers giving other milk apart from breast milk during first 3 days as well as throughout the period of 6 months along with breast feeding was high in the study. In a study, of breastfeeding was found to be low (43%).[15] This may be due mainly to the existing traditional beliefs and practices in the rural community. It appears that the belief that breast milk “does not come down” before the third day is still prevalent.[16] Early initiation Breastfeeding was perceived as essential to baby’s health. It strengthens the physical and spiritual bond between mothers and their children. Exclusive breastfeeding was considered essential but demanding. Only a small proportion (19%) of the nursing mothers practiced exclusive breastfeeding. The survey showed the major constraints to exclusive breastfeeding to be: the perception that babies continued to be hungry after breastfeeding (29%); maternal health problems (26%); fear of babies becoming addicted to breast milk (26%); pressure from mother-in-law (25%); pains in the breast (25%); and the need to return to work (24%).[17]

In the present study, according to 48% mothers when infants stop sucking, breast milk or top milk was enough. Ninety one

percent (n = 128) of mothers breastfed their babies when they cried, which amounted to 7-8 times per day.[12]

From both the quantitative and qualitative findings, breastfeeding mothers are faced with personal and social constraints in practicing exclusive breastfeeding. Specific constraints identified include maternal health, breast and nipple problems, perceived milk insufficiency, and pressure from significant others. These findings support the findings of Otoo, Lartey and Perez-Escamilla on perceived incentives and barriers to exclusive breastfeeding among peri-urban Ghanaian Women.[17] In Bangladesh the biggest gaps were found in putting the baby to the breast within the first hour of birth (76% gap), feeding colostrum and not giving other fluids, foods or substances within the first three days (54% gap), and exclusive breastfeeding from birth through 180 days (90% gap).[18] This finding supports Grassley and Eschiti's position that grandmothers' own infant feeding experience and knowledge can influence mothers' decisions to initiate and continue breastfeeding or not.[19] In Uchendu, Ikefuna and Emodi's study which was conducted among breastfeeding mothers at the University of Nigeria Teaching hospital, 52% of women who had never practiced exclusive breastfeeding reported family opposition, especially grandmothers, and personal decision-making as major constraints.[20]

In the present study. Only 34% mothers received counseling about breast feeding and its importance. Women those who received advices regarding the importance of breast feeding before delivery and during hospital stay have initiated the breast milk to their newborns much early than those who do not received the advices from the health workers.[21] While counseling and proper education on desirable breastfeeding practices could be adopted to achieve a change in attitudes, perceptions, knowledge and practice of exclusive breastfeeding, the inadequate quality support from health care providers, as illustrated by the experiences of the nurses, could be a challenge. However, this is not

peculiar to the provision of educational support on breastfeeding. Inadequate supply of health professionals and increasing health challenges is the bane of modern health delivery in developing nations.[22]

Initiation and continuation of breastfeeding is influenced by a complex interplay of culture, social support, and socioeconomic status.[23] Cultural beliefs and local traditions are important in determining health behavior in general. The erosion in the value of breastfeeding, lack of accurate and unbiased information on optimum infant feeding practices, and inadequate support to breastfeeding mothers are some of the factors responsible for poor rates of infant feeding practices.[24]

Health professionals have traditionally encouraged women to breastfeed their babies, by giving information about its benefits, calling it "promotion". However, there are many other critical factors that affect breastfeeding practices, such as hormonal control of breastfeeding, mothers' state of mind, perceptions of not having enough breast milk, dominant societal and media representations of breastfeeding, and being able to breastfeed in public. All these difficult situations require special skills and support, which currently is lacking.[6] Studies have shown that women who receive encouragement to breastfeed from health care providers are more likely to initiate and maintain breastfeeding than women who did not receive encouragement. Studies have also shown the influence of industry on health workers in undermining breastfeeding.[25]

Conclusion

Many maternal and child health workers invariably lack necessary knowledge and skills to help and support women initiate breastfeeding as well as support maintenance of exclusive breastfeeding. They also may believe that they know enough, creating a barrier in promoting breastfeeding. Health care providers can have a significant impact

on the intention to breastfeed, initiation, and consequent duration of breastfeeding. Hence, awareness and education is required towards benefits of breast feeding. Education related to breast feeding is required at antenatal and post natal period.

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