

A Study on Infant Feeding Practice among Multiparous Postnatal Mothers in Katihar City: A Cross- Sectional Study

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Abstract

Original Research Article

Background: India is a land of diverse cultures and traditions. Infant feeding and rearing practices vary across communities, depending on social customs, traditional beliefs, literacy and socio-economic status of the family. These practices at times are not of any benefit to the newborn and can be harmful. Despite its rapid economic growth. **Aim & objectives:** To study the infant feeding practice in Katihar. **Methods:** The study was conducted by simple random sampling in Katihar Medical College. All the multiparous women who were in postnatal period were included in the study till sample size was reached. Data was collected after informed consent using pre-tested semi-structured questionnaire and analyzed in SPSS. **Results:** Out of 100 mothers, 69% of the mothers had initiated breastfeeding within standard norms and 28.5% had given pre-lacteal feeds to their babies which was significantly associated with religion and type of family of the mothers. Majority of the mothers (95.5%) had given colostrum and its association with type of family was significant. Majority of them (80.1%) had breastfed their baby on demand. Breastfeeding technique was proper among only 62.8% of the mothers. Around 86.5% of the mothers had practiced EBF > 6 months and its association with age of the mother, socio-economic status was significant and 78% of the mothers breastfed their child for >18 months. About 85.5% mothers started complementary feeding with CFF. **Conclusion:** In spite of educational messages by health professionals, certain feeding practices are found unsatisfactory and certain harmful rearing practices are still prevalent in the community. This necessitates additional focus by the policy makers towards maternal and child health to ensure the needs to be fulfilled and to impose certain regulations against prevalent harmful practices in the community.

Key words: Breast feeding, Exclusive breastfeeding, Pre-lacteal feeds.

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INTRODUCTION

India is a land of diverse cultures and traditions. Religion along with the socioeconomic status of a family influences the child rearing practices in India. Infant feeding and rearing practices vary across communities, depending on social customs, traditional beliefs, literacy and socio-economic status of the family. These practices at times are not of any benefit to the newborn and can be harmful [1]. Thus socio-cultural factors are the larger scale forces within cultures and societies that affect the thoughts, feelings and the behavior of the individuals, which will influence the feeding pattern of children. The influencing factors include household, income, gender, religion, birth order, attitudes and beliefs, family structure, preference of child, ethnicity, education, employment and occupation [2].

It is estimated that globally each year 4 million newborns die accounting to two thirds of all infant deaths. In India, of the 26 million newborns each year, 1.2 million die in the neonatal period [3]. For all the children breast milk provides the main source of nourishment in the first year of life. A child who is breast-fed has greater chances of survival than a child who is artificially fed. But in the world's most affluent societies breast feeding appears to have become a lost art and feeding bottle has usurped breast feeding [4]. Various studies, including the WHO study, have reported that mothers consider breast milk the best food for infants. Even though they think so, actual practice is poor in the community. Overall, infant morbidity and mortality is attributed to improper infant feeding practices and harmful cultural practices which depend on the knowledge, attitude and practice of the

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community in addition to other factors like socio-economic status, availability and accessibility of medical services [5]. Aim of the study to evaluated infant feeding practice among multiparous postnatal mothers in Katihar District. And to study the associated socio-cultural factors which influence the feeding practice.

MATERIALS AND METHODS

A cross-sectional study was conducted in Katihar Medical College of Katihar city located in Bihar. Total no. of 100 cases were attend postnatal period in Katihar Medical College at one year time duration. The study population composed of multiparous women who were in postnatal period in Katihar Medical College.

Inclusion criteria

Multiparous women who were in postnatal period

Exclusion criteria

Mothers who not give consented to participate in the study Mothers who were not available even after two visits.

Sampling

There were total eight urban health centers (UHCs) in Katihar city. Out of them, three were selected randomly and all multiparous women who were in postnatal period in the locality under these urban health centers, willing to participate were included in the study. Every month, information was obtained about the number of deliveries conducted from

the registers maintained in the UHCs / anganawadi centers (AWCs).

Ethical approval

Ethical approval for the study was obtained from the Institutional Ethics Committee.

STATISTICAL ANALYSIS

Raw data was entered into Microsoft Excel spread sheet. SPSS (Version 21) was used for performing the statistical analyses. Data analysis was done using appropriate statistical tools. Results were expressed in terms of frequency, percentages, chi square values and their P-values. All statistical tests were performed with a confidence level of 95% and power of 80%. In the significance tests, P-values more than 0.05 were deemed insignificant.

RESULTS

This study was conducted in the urban area of Katihar city. Three urban health centre areas were selected randomly out of eight. A total of 100 multiparous postnatal mothers were included in the study. Out of 100, majority of the mothers (77%) were in the age group of 21 to 30 years. About 53.5% were married between 21 to 25 years. Only 9% mothers were illiterates and 92.5% were housewives. About 78.5% of the mothers belonged to lower socio-economic status. Majority of the mothers were hindus (69.5%). Around 55.5% of the mothers were from joint family. Whereas 44.5% were from nuclear family. About 81.5% mothers had more than 2 children (Table 1).

Table-1: Socio-demographic variables of study subjects. (n=100).

Variables		Frequency (No.)	Percentage (%)
Age of the Mother (years)	21-30	77	77.0
	31-40	23	23
Age of the mother at marriage (years)	15-20	34	34.0
	21-25	53	53
	26-30	13	13
Religion	Hindu	70	70
	Muslim	30	30
Literacy status	Illiterate	9	9
	Literate	91	91
Occupation	Housewife	92	92
	Working	8	8
Socio-economic status	Upper*	22	22
	Lower*	78	78
Type of family	Nuclear	45	45
	Joint	55	55
No. of children	2	82	82
	>2	18	18
Sex of Baby	Male	58	58

	Female	42	42
Type of Delivery	Normal	50	50
	Caesarean	50	50

Upper* - Class I, II Lower* - class III, IV and V
(modified B.G.Prasad classification)

Colostrum was given by 95.5% mothers to their babies whereas 4.5% discarded it.

In the present study, 28.5% mothers had given pre-lacteal feeds to their infants. Among mothers who had given pre-lacteal feeds, 86% of themothers gave honey, 5.3% mothers gave holy water and 3.5% gripe water and 5.2% mothers had given other substances. Reasons for giving pre lacteal feeds among 57 mothers were, as a traditional practice (77.1%), good for the health of the baby (21.1%) and as baby was not taking feeds (1.8%). About 69% of the mothers had initiated breast feeding within one of delivery. Among mothers, the reasons for late initiation of breast feeding were (a) no secretion of breast milk(22.6%), (b) baby was in NICU (30.6%), (c) LSCS (25.8%), (d) mother was ill (8.1%), (d) traditional practice (8.1%) and (d) baby was not taking feeds (4.8%).

Among study subjects who were breast feeding the baby, 80.1% practiced breastfeeding on demand, 17.9% mothers practiced scheduled feeding and 2% mothers breast fed their infant randomly. Most of them preferred sitting position (86.7%) to breastfeed their child, whereas 13.3% mothers preferred sleeping position.

Mothers were observed for breast feeding technique and it was proper in 62.8% of the mothers and improper among 37.2% mothers. During mother's illness, majority of them breastfed their baby (84.2%), whereas 15.8% mothers didn't do so. During baby's illness 93.4% mothers breastfed their baby whereas 6.6% mothers did not feed their baby. Majority of the mothers (94%) practiced burping after feeding their baby. About 27.6% of the mothers avoided certain food items during breast feeding period. Among mothers who had avoided food items, 79.7% mothers avoided certain fruits (banana, papaya, pomegranate, guava, musk melon and water melon) and vegetables (brinjal, cucumber and bottle guard), 9.2% avoided oily and spicy foods and 11.1% avoided curds and other cold items. Among the study subjects, majority of the mothers (86.5%) mothers practiced exclusive breastfeeding for their previous child. About 78% mothers breastfed their previous child for >18 months whereas 22% did not do so. Most of the mothers initiated complementary feeding with home-made food items (85.5%) and remaining mothers (14.5%) gave their child Commercial Formula Feeds (CFF).

Out of all the study subjects, 10.5% mothers applied some kinds of substances to the umbilical cord whereas 89.5% mothers did not apply anything.

About 7% of the mothers gave bath to their baby within 24 hours of birth. Majority of the mothers (98%) gave oil massage to their babies before bathing on regular basis. Around 20% mothers instilled oil into the ears of infant whereas majority of the mothers 160(80%) did not do so. About 10.5% of the mothers applied kajal to the eyes of infants. About one third of the mothers (47.5%) practiced ear piercing before 1 year of age. Majority of the mothers (83.5%) tied amulets to their baby and 2% mothers practised tattooing their baby whereas 196 (98%) did not do so. Around 12% mothers branded their child whenever the baby was ill whereas 88% did not. Most of the (97%) preferred to take the child to allopathic doctors whenever the child was ill. In this study among different variables, breast feeding technique was found to be significantly associated with socio-economic status of mothers. The breastfeeding technique was proper among majority of the mothers from upper socio-economic group (80.5%). Majority of the literate mothers (81.9%) breastfed their previous child for > 18 months compared to illiterate mothers (38.9%). This association between literacy status and duration of breast feeding was found to be statistically significant.

The present study shows that practice of application of kajal to the eyes of infant was more among mothers from muslim religion (19.7%) compared to mothers from Hindu religion (6.5%). This implies that there is significant association between religion and application of kajal to the eyes. Other variables did not show any significance.

DISCUSSION

Even though infant feeding practice has been improved all over the country, they are yet not satisfactory and differ in various regions. Other studies have shown that various socio-cultural factors like religion, socio-economic status of the family and family rituals influence the nurturing ways of infants.

A study conducted by Asim M titled Perception and Practices of Mothers about Feeding Practices of Newborn Babies in Faisalabad, Pakistan showed that avoiding colostrum and giving some pre-lacteal feed and bottle feeding are contributory factors for preventable diseases which ultimately lead to high infant mortality [6].

Breast feeding is a nature's way of nurturing the baby by mother. According to Infant and Young Child Feeding (IYCF) 2006 guidelines [7], Government of India recommends that initiation of breastfeeding

should begin immediately after birth; preferably within one hour. Early initiation of Breast feeding in turn helps in early secretion of breast milk through stimulation of oxytocin reflexes and milk reflexes. In our study, More than half of the mothers (69%) initiated breast feeding within standard norms (within one of delivery) which is similar to other studies conducted by Vijayalakshmi S (65%)[8], Deshapande J (63%)[9], Sunil N (70%)[10]. The reasons among the mothers who initiated breast feeding outside the standard norms were baby kept in NICU. In our study none of the variables showed significant association with practice of initiation of breastfeeding.

As a part of global public health recommendation, infants should be exclusively breastfed for the first six months of life to achieve proper growth, development and health. In our study, it was observed that exclusive breast feeding was practised by most of the mothers (86.5%) which is in contrary to the studies conducted by Yadavannavar M C (75%), Kulkarni R N (70.2%)[11]. Majority of the mothers from lower socio-economic status had practiced EBF and for that they told that they were educated about the importance of EBF by ASHAs and female health workers. In this study, 91.9% of the mothers from joint family had practised EBF compared to 79.8% of the mothers from nuclear family.

Along with proper feeding practices, proper infant rearing practices will yield a healthy and productive child to the society. In India so many cultural practices like application of substance to the umbilical cord, giving first bath within 24 hours of birth, oil massaging the baby before bathing, instillation of oil into the ears, application of kajal to the eyes, tying amulets, tattooing and branding are followed as part of their tradition among various communities. Among these some of the practices are harmful. Application of harmful substances to the umbilical cord can cause tetanus Neonatorum and infant death [12]. In the present study, most of the mothers (89.5%) did not apply any kind of substance to the umbilical cord which is in contrast with the results found in the studies done by Madhu K (33%)[13], Kumar N (48.7%)1. Remaining 10.5% of the mothers had applied substances like turmeric powder, betadine powder and coconut oil thinking that these substances give protection against infection.

CONCLUSION

We conducted a cross-sectional study on infant feeding practice and socio-cultural factors influencing them among multiparous postnatal mothers in Katihar city.

In our study, the practices of giving colostrum, exclusive breast feeding and demand feeding were found better among mothers. Majority of the mothers from nuclear family had given colostrum to their infants

compared to joint families. Exclusive breast feeding and demand feeding was practised by most of the mothers and these practices were more among mothers from lower socio-economic group. It was also observed that practice of exclusive breastfeeding was seen more among mothers from joint families. Still one third of the mothers had given pre-lacteal feeds to their infants which will endanger the life of children in later period. The practice was more prevalent among mothers from Muslim religion and joint families. It is unacceptable that only 69% of the mothers had initiated breastfeeding within one hour of delivery. More than two thirds of the mothers had breastfed their previous child for more than 18 months and the practice was significantly influenced by literacy status of the mothers. Breast feeding technique was found to be proper in only half of the mothers. Our study revealed that still one fifth of the mothers instilled oil into the ears of baby and more so in joint families. Still 12% of the mothers branded their children when child was ill. Majority of the mothers from Muslim religion had applied kajal to the eyes of the baby compared to Hindus. About 7% of the mothers had given bath to their baby within 24 hours of birth.

REFERENCES

1. Kumar, N., Unnikrishnan, B., Rekha, T., Mithra, P., Kulkarni, V., Papanna, M. K., ... & Jain, A. (2012). Infant feeding and rearing practices adapted by mothers in Coastal South India. *International Journal of Collaborative Research on Internal Medicine & Public Health*, 4(12), 1988.
2. Fatemah, N., Masoumeh, B. (2010). European Journal of Social sciences, 16(4), 537 – 46.
3. SRS. Registrar General of India. Statistical Report. 2000.
4. Park, K. (2017). Park's Textbook of Preventive and Social Medicine. 24th ed. Jabalpur: Banarasidas Bhanot.
5. Pandav, C. S., Moorthy, D., Sankar, R., Anand, K., Karmarkar, M. G., & Prakash, R. New Delhi: National Institute of Health and Family Welfare; 2003. *National Iodine Deficiency Disorders Control Programme, National Health Programme Series*, 5.
6. Asim, M., Yasin, G., Mahmood, B., & Abbass, N. (2016). Conventional rearing, caring practices of Infants in Faisalabad, Pakistan. *Rawal Medical Journal*, 41(4), 476-479.
7. Ministry of Human Resource development. (2004). National Guidelines for Infant and Young Child Feeding. New Delhi: Department of Women and Child Development Government of India. Available at <http://wcd.nic.in/nationalguidelines.pdf>.
8. Vijayalakshmi, S., Patil, R., & Datta, S. S. (2014). Community-based study on newborn care practices and its determinants in rural Pondicherry, India. *J Neonatal Biol*, 3(5), 1-5.
9. Jayant, D. D., Purushottam, G. A., Deepak, P. B., Vaishali, P. D., Piyush, K., & Aarif, S. M. (2010).

- Socio-cultural practices in relation to breastfeeding, weaning and child rearing among Indian mothers and assessment of nutritional status of children under five in rural India. *Australasian Medical Journal (Online)*, 3(9), 618.
10. Sunil, N., Padodara, J., Sushil, P., Vaibhav, G., Swati, P., Vivek, C., & Toral, D. (2010). Breast feeding practices in urban community of Surat city. *National Journal*, 1(2), 111.
 11. Kulkarni, R.N., Anjaneya, S., Gujar, R. (2004). Breastfeeding practices in an urban area of Kalamboli, Navi, Mumbai. *Indian Journal of Community Medicine*, 29; 179-80.
 12. Cacodcar, J., Dubhashi, A., & Joglekar, S. (2015). A Cross-Sectional Study on Child Rearing Practices in Rural Goa. *Journal of Krishna Institute of Medical Sciences (JKIMSU)*, 4(4).
 13. Madhu, K., Chowdary, S., & Masthi, R. (2009). Breast feeding practices and newborn care in rural areas: a descriptive cross-sectional study. *Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine*, 34(3), 243.