



A STUDY OF INFANT FEEDING PRACTICES IN RURAL AREA IN WESTERN MAHARASHTRA

Paediatrics

**Dr. Rucha
Pachunde**

MBBS, DCH, DNB, Assistant Professor, Dept of Pediatrics, VIMS, Vedanta Hospital and Research Centre, Palghar, Maharashtra.

ABSTRACT

Objective: A Study of Infant Feeding Practices in Rural Area in Western Maharashtra. **Background:** The Lancet's 2003 child survival series identified that exclusive breastfeeding could save up to 1.3 million children worldwide. Suboptimal feeding practices during the infancy increase the risk of death, illness, and malnutrition. Despite overwhelming evidence of the benefits of exclusive breastfeeding, only about 40% babies under 6 months are exclusively breastfed, due to the lack of understanding of optimal feeding practices and lack of support from health service providers, community members, and families. Undernutrition of children is an important contributor to the deaths of 10.5 million children globally each year. **Aims and Objectives:** The present study was conducted to study factors associated with infant feeding practices and reasons preventing exclusive breastfeeding in infants. This study seeks to estimate the proportion of mothers carrying out age-appropriate infant feeding practices. **Materials And Methods:** A cross-sectional community-based study was conducted in the field practice area of VIMS, Dahanu from January 2022 to June 2022. Recruitment of study population was done by a systematic random sampling method and study population comprised of mothers with infants between 9 months and 1 year. **Results:** In the present study, 150 infants aged 9 months to 1 year were recruited. It was observed that exclusive breastfeeding up to 6 months was carried out in 94 infants (62.66%). Early initiation of breastfeeding was carried out in 37 infants (24.7%). Weaning of infants by 6 months was started in 72 infants (48.18%). Exclusive breastfeeding of infants was found to be statistically significantly associated with mother's occupation ($\geq 2 = 27.152$; $P = 0.00019$), religion ($\geq 2 = 12.19$; $P = 0.015$), and age ($\geq 2 = 25.4$; $P = 0.0002$). **Conclusions:** Suboptimal feeding practices during the infancy increase the risk of death, illness, and malnutrition. It is imperative to educate mothers on infant and young child feeding practices and create awareness within communities to achieve optimal growth and development of infants.

KEYWORDS

Breastfeeding, Infant and young child feeding practices, Weaning

INTRODUCTION

Suboptimal feeding practices during the infancy increase the risk of death, illness, and malnutrition. Despite overwhelming evidence of the benefits of exclusive breastfeeding, only about 40% infants under 6 months are exclusively breastfed due to the lack of understanding of optimal feeding practices and lack of support from health service providers, community members, and families.[1] Infants who are not exclusively breastfed in the early months have a higher risk of death, especially from infection.[2] Undernutrition of infants is an important contributor to the deaths of 10.5 million children globally each year. The Lancet's 2003 child survival series identified a package of proven nutrition interventions with the potential to avert up to 25% of child deaths if implemented. The Lancet's 2003 child survival series identified that exclusive breastfeeding could save up to 1.3 million children worldwide. This essential intervention involves the early initiation of breastfeeding and ensuring that the mother gives only breastmilk and no other food or fluids during the first 6 months of life. A structured questionnaire was used to collect data in a face to face interview with the mother.

The global strategy on infants and young child feeding[1-5] recommended that infants should be exclusively breastfed for the first 6 months of life to achieve optimal growth development and health. feeding practices at the health facility level is the Baby-Friendly Hospital Initiative. Community-based activities include education and support from skilled birth attendants and existing community groups, community mobilization, traditional and mass media, and home visits. However, there are several challenges to optimal feeding practices for infants. Some studies have identified cultural and social factors which impact the feeding practices of newborns. Hence, there is a need to find factors which impede the establishment and maintenance of optimal breastfeeding practices.[6,7]. Complementary feeding should be started by the age of 6 months in infants. Introducing complementary feeds too late in the infancy period can lead to malnutrition.[2] The present study was conducted with the following objectives:

(1) To estimate the proportion of mothers carrying out feeding practices in infants from birth until 6 months of age, (2) to study factors associated with infant feeding practices, and (3) to study reasons hindering exclusive breastfeeding in infants.

MATERIALS AND METHODS:

The present cross-sectional study was conducted in VIMS, Dahanu. After taking necessary permissions and obtaining ethical clearance from the Institutional Ethics Committee, the study was conducted from January 2022 to June 2022. Using formula $4pq/d^2$, considering prevalence $P = 60\%$ [3] and error $d = 8\%$, a minimum sample size of

150 participants were calculated. A systematic random sampling method was used to recruit 150 study participants from infants aged 9 months to 1 year of age in the study area. Informed consent of the mother was obtained before commencing the interview and questions were asked to the mother in the local language. A predesigned pretested questionnaire was used to collect data. Data were collected on the feeding practices of infants from birth to 6 months of age.

Statistical Analysis:

The data were analyzed using SPSS software version 22. Data were expressed as frequencies and percentages in tabular form and Chi-square test was used in the analysis. A $P < 0.05$ was considered statistically significant.

RESULTS:

In the present study, 150 infants aged 9 months to 1 year of age were recruited. It was observed that all infants in the study were breastfed, with exclusive breastfeeding carried out in 94 infants (62.66%), while the rest of the infants were partially breastfed. The proportion of male infants that were exclusively breastfed (72.7%) was higher than that of female infants (54.8%). Early initiation of breastfeeding was carried out in 37 infants (24.7%). It was observed that 72 infants (48.18%) were weaned by 6 months of age while continuing breastfeeding, whereas weaning with complementary feeds was not started in 78 infants (51.82%) by 6 months. When asked about the type of weaning foods, 39 infants (54.2%) were given a liquid to semi-solid home-made foods, whereas 33 infants (48.8%) were given readymade weaning mixes. In the present study, it was observed that the highest proportion of mothers (53.3%) was in the age group of 26–29 and the lowest proportion (2.7%) mothers were in the age group of 18–21. A higher proportion of the mothers (60%) was employed and 40% mothers were housewives. The highest proportion of mothers (66.7%) was Hindu by religion and only the lowest. It is observed in the present study that higher proportions of infants, 51.33% were males and only 48.67% were females. The highest proportion of infants (50.67%) were of birth order 1 and the lowest proportion of infants (18%) were of birth order of 3 or more. About 84% of infants were born with a birth weight of 2.5 kg and above, and 16% were low birth weight babies [Table 1]. In the present study, mothers reported reasons for not exclusive breastfeeding as inadequate milk production (60.7%), maternal illness (7.3%), constraints faced by mother at work (24.7%), and due to poor sucking reflex of infant (7.3%).

Table 1: Profile Of Infants

Variable	n (%)
Gender of child	

Male	77 (51.33)
Female	73 (48.67)
Total	150 (100)
Birth order	
First	76 (50.67)
Second	47 (31.33)
Third or higher	27 (18)
Total	150 (100)
Birth weight	
<2.5kg	24 (16)
>2.5kg	126(84)

DISCUSSION:

In the present study, 94 infants of 150 (62.67%) were found to have exclusively breastfed until 6 months of age. Whereas, it was observed to be 57.7% in a study by Benjamin and Zachariah (1993)[8] and 63.50% in a study conducted by Aggarwal et al.[9] However, it was observed that only 8.6% mothers practiced exclusive breastfeeding in a study conducted in Orissa.[5] In the present study, 24.7%, i.e., 37 infants, were breastfed within 1 h after birth. Similar findings of early initiation of breastfeeding within 1 h (27.2%) were reported by Khan et al.,[10] Shwetel et al. (32.6%),[11] and Raval et al. [12] However, in a study conducted by Madhu et al.,[13] it was observed that 92% of infants had early initiation of breastfeeding, and Ekambaram et al. [14] reported that in their study, 97% of infants had early initiation of breastfeeding. This difference may be due to local cultural beliefs and practices which were more favorable in those particular regions. In the present study, 48.18% of mothers started weaning at 6 months. In an interventional study of 35 parents in Delhi,[15] only 16.5% of mothers had started weaning at the recommended time, which is less than that observed in the present study.[15].

A National Family Health Survey 3 for Karnataka State, India, reported that 72.5% of children aged 6–9 months were receiving complementary feeds and breast milk.[17] In the present study, it was found that the most common reason for not exclusively breastfeeding was the inadequacy of breast milk secretion (60.7%). Similar findings of inadequate milk secretion in mothers (54.67%) were observed in a study conducted by Sriram et al. [18]

CONCLUSION:

Suboptimal feeding practices during the infancy increase the risk of death, illness, and malnutrition.

There is a need for community health education programs aimed at educating mothers on (1) initiation of breastfeeding within the first 1 h after birth, (2) exclusive breastfeeding until 6 months of age, and (3) continue breastfeeding until 2 years. Furthermore, it would be effective to use mass media for educating people and encourage community support groups to promote breastfeeding and thereby prevent undernutrition in children. Breastfeeding has been repeatedly proven in various studies as a healthy and cost effective method of feeding infants until 6 months of age.[19]

REFERENCES

1. World Health Organization. Global Data Bank on Infant and Young Child Feeding. Available from: <http://www.who.int/nutrition/database/infantfeeding/countries>. [Last accessed on 25 Mar 20].
2. World Health Organization. Exclusive Breastfeeding. Available from: http://www.who.int/nutrition/topics/exclusive_breastfeeding/en. [Last accessed on 2015 Jun 11].
3. Available from: https://www.who.int/pmnch/media/publications/aonsectionIII_6.pdf?ua=1. [Last accessed on 25 Mar 20].
4. Available from: https://www.who.int/maternal_child_adolescent/documents/9789241599290/en. [Last accessed on 25 Mar 20].
5. Available from: <https://www.who.int/publications-detail/9241562218>. [Last accessed on 30 Mar 20].
6. Available from: https://www.who.int/nutrition/topics/infantfeeding_recommendation/en. [Last accessed on 30 Mar 20].
7. Available from: https://www.who.int/elena/titles/early_breastfeeding/en. [Last accessed on 30 Mar 20].
8. World Health Organization. Fifty-Fourth World Health Assembly. WHA54.2. Agenda Item 13.1. Infant and Young Child Nutrition. Geneva: World Health Organization; 2004.
9. Pathi S, Das BC. Breast feeding practices in a rural ICDS block of Khalikote, South Orissa. *Indian J Community Med* 2005;30:154.
10. Khan AM, Kayina P, Agrawal P, Gupta A, Kannan AT. A study on infant and young child feeding practices among mothers attending an urban health center in East Delhi. *Indian J Public Health* 2012;56:301-4.
11. Bhatt S, Parikh P, Kantharia N, Dahat A, Parmar R. Knowledge, attitude and practice of postnatal mothers for early initiation of breast feeding in the obstetric wards of a tertiary care hospital of Vadodara. *Natl J Community Med* 2012;3:305-9.
12. Raval D, Jankar DV, Singh MP. A study of breast feeding practices among infants living in slums of Bhavnagar City, Gujarat, India. *Healthline* 2011;2:78-83.
13. Madhu K, Chowdary S, Masthi R. Breast feeding practices and newborn care in rural areas: A descriptive cross-sectional study. *Indian J Community Med* 2009;34:243-6.
14. Ekambaram M, Bhat VB, Ahamed MA. Knowledge, attitude and practice of

- breastfeeding among postnatal mothers. *Curr Pediatr Res* 2010;14:1-8.
15. Benjamin AI, Zachariah P. Nutritional status and feeding practices in under-3 years old children in the rural community in Ludhiana, Punjab. *Health Popul Perspect Issues* 1993;16:3-21.
16. Aggarwal A, Verma S, Faridi M. Complementary feeding--reasons for inappropriateness in timing, quantity and consistency. *Indian J Pediatr* 2008;75:49-53.
17. Available from: <http://www.rchips.org/nfhs/nfhs3.shtml>. [Last accessed on 30 Mar 20].
18. Sriram S, Soni P, Thanvi R, Prajapati N, Mehariya KM. Knowledge, attitude and practices of mothers regarding infant feeding practices. *Natl J Med Res* 2013;3:147-50.
19. Available from: http://www.file:///C:/Users/Admin/Downloads/Exclusive_Breastfeeding_Practice_and_Its_Associati.pdf. [Last accessed on 30 Mar 20].