

Original Article

Assessment of Knowledge of Infant Feeding amongst Mothers in Urban Area of Western Maharashtra

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Abstract

Background : In a developing country like India numerous factors influence the initiation and maintenance of breastfeeding and the introduction of complementary food. This study aimed to assess knowledge and practices of breastfeeding and complementary feeding amongst mothers in urban area of western Maharashtra.

Materials and Methods : Mothers of infants (aged, 6 months to 1 year) were enrolled from a tertiary care centre in Western Maharashtra. A preformed (by the UNICEF) and pretested (in local language) questionnaires were administered to assess common knowledge on breastfeeding and complementary feeding practices. The data analysis was done using Epi Info version 7.2.5.0. and categorical variables were expressed in terms of frequency and percentages (with 95% CI).

Results : A total of 315 mothers with an age range of 19-30 years were interviewed. Of these, 69.5% mothers initiated breastfeeding within 1 hour of delivery and 75.5% of the mothers exclusively breastfed their infants for 6 months. Prelacteal feeds were considered healthy by 52.1% of the mothers. External milk sources were given by 51.7% of mothers. A total of 37.5% of the mothers reported the need to adhere to practices like giving baby tonics / gripe water. Seventy eight percent of mothers initiated complementary feeding after 6 months of age.

Conclusion : The alarming use of prelacteal and external milk sources reported by the mothers in this study highlighted the need for continuous education of mothers with improved clarity of the teachings on exclusive breastfeeding and complementary feeding as per WHO and UNICEF guidelines.

Key words : Breastfeeding, Complementary Feeding, Mothers, Infants.

Breastfeeding is the healthiest feeding method that satisfies the requirements of a child from birth to early infancy. According to the World Health Organization (WHO) "Exclusive breastfeeding" is defined as giving no other food or drink – not even water – except breast milk to the infant¹.

Initiation of breastfeeding, within one hour of birth, protects the newborn from acquiring infection and reduces neonatal morbidity and mortality. According to the NFHS 5 current neonatal mortality rate in India is 24.9/1000 live births. The first milk produced in the first few days, called colostrum, is an important source of immune protection for the newborn².

Babies who are breastfed exclusively for the first six months of age have 15 times less probability to die from Pneumonia and 11 times unlikely to die from diarrhea, which are two leading causes of death in

Editor's Comment :

- A significant knowledge gap exists among mothers regarding breastfeeding and complementary feeding practices.
- Providing regular counselling and hands-on training can help bridge this gap, empowering mothers to improve nutritional status of infants and young children, thus contributing positively to the nation's overall growth and development.

children under-five years of age³. Breast milk is vital for the development of immune function in the neonate and for reducing permeability of the intestine to bacterial pathogens in their extrauterine life⁴.

Cellular and biochemical components of breast milk are associated with long-term benefits, like supporting neurocognitive development, protection against Obesity, Hypertension, Type 2 Diabetes and Atopic disease during later life and thus reducing hospitalization^{5,6}.

Complementary feeding after 6 months is important due to high risk of micronutrient deficiencies and malnutrition. Even though babies may thrive on breast milk alone during the first 6 months, they become biologically fit to accept semisolids after 4 months⁷. Improper implementation of complementary feeding makes a child prone to malnutrition, diarrhea and its consequences⁸.

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In India exclusive breastfeeding rates among children under six months have improved from 54.9% in 2015-16 (NFHS 4) to 65.1% in 2019-21 (NFHS 5) and in Maharashtra-it has improved from 56.6% to 71%. In a developing country like India numerous factors influence the initiation and maintenance of breastfeeding and the introduction of complementary food. Some of the common factors include perception of the mother that she is not producing an adequate amount of milk, inadequate awareness regarding the benefits of breastfeeding. Other factors include community practices and beliefs regarding unhygienic practices like pre-lacteal feeds, top feeds and lack of support and guidance from peers and families⁹⁻¹¹. So this study was done to assess knowledge and practices of breastfeeding and complementary feeding amongst mothers.

MATERIALS AND METHODS

This cross-sectional observational study was carried out in Dr DY Patil Medical College, Hospital and Research Centre, Pune. Mothers of infants (aged, 6 months to 1 year) attending Out Patient Department (OPD) were approached by using nonprobability convenient sampling technique and study procedures were explained to them. Those agreed to participate signed an informed written consent.

Preformed and pretested questionnaires practiced by the UNICEF were administered. The questions comprised of assessing knowledge on breastfeeding practices and complementary feeding were translated to local language (Marathi) and were explained by the nurses and postgraduate students to the mothers. The Statistical analysis was done using Epi Info (version 7.2.5.0) and the categorical variables were expressed in terms of frequency and percentages (with 95% CI).

RESULTS

A total of 315 mothers were interviewed. Included mothers had an age range of 19-30 years. In this study, 219 (69.5%) mothers initiated breastfeeding within 1 hour. Prelacteal feeds (Glucose / Sugar / Jaggery / normal Water or Honey) was practiced by 164 (52.1%) of the mothers. External milk sources like cow's/buffalo's milk or infant formula was given by 163 (51.7%) of mothers.

Seventy nine percent mothers felt that after caesarean section, though mother cannot sit comfortably still mother needs to breastfeed her baby and majority,

265(84.1%) of women felt that baby should be kept near mother immediately after delivery. Half (51%) of the women reported that nipple and more of areola should go in the mouth of the baby while feeding (Table 1).

Regarding on how often baby should be breastfed, majority (56.8%) answered for every 2 hours followed by 16.5% for every hour, 2.5% every 3 hours. Majority of women (35.9%) had breastfed at any given feed, for approximately 10-20 mins. Baby tonics /gripe water /balkadhu were regarded as good community practices followed by only 118 (37.5%) mothers. Bottle feeding was practiced by 57.5%(Table 2).

A total of 238 women initiated top feed after 6 months and 246 also initiated complimentary feeds after 6 months. Rice Dal was the preferred complimentary food by majority (n=209) of women. When asked about upto what age the baby should be given breastfeeding, 66% women had breastfed their baby upto 2 years of age.

DISCUSSION

In our study most of the mothers breastfed their babies. Most of them initiated breastfeeding within one hour of birth. Exclusive breastfeeding up to 6 months of age was practiced by most mothers. Although there has been an improvement on the percentage of exclusive breastfeeding, practices like

Table 1 — Breast feeding experiences and practices

Question	Responses N (%)
1) After birth baby to be breastfeed within	
1 Hour	219 (69.5%)
2 Hours	81 (25.7%)
4 Hours	3 (1.0%)
2) Before starting breastfeeding new-born baby to be given, glucose water/ sugar water/ Jaggery water/ normal drinking water/honey.	164 (52.1%)
3) First three days of delivery mother gets less milk secretion. During this period baby can be given cow's milk/buffalo's milk/powdered milk.	163 (51.7%)
4) After caesarean section mother cannot sit comfortably. Still mother needs to breastfeed her baby.	249 (79.0%)
5) Baby shall be kept in this place in labour room	
In the baby room	9 (2.9%)
with relatives	22 (7.0%)
near mother	265 (84.1%)
with mother but in cradle	16 (5.1%)
6) Part of the breast to be allowed to go into the mouth of the baby	
only nipples	37 (11.7%)
nipples and little areola	103 (32.7%)
nipple and more of areola	161 (51.1%)
whatever baby can take	9 (2.9%)

Table 2 — Intervals of breast feeding

1) Baby to be breastfed at an interval of	
1 Hour	52 (16.5%)
2 Hours	179 (56.8%)
3 Hours	8 (2.5%)
as per schedule	6 (1.9%)
as per baby demand	41 (13.0%)
2) Baby to be breastfed at any given feed for	
5-10 minutes	39 (12.4%)
10-20 minutes	113 (35.9%)
20-30 minutes	36 (11.4%)
>30 minutes	13 (4.1%)
as long as baby is demanding	96 (30.5%)
3) Baby to be fed with water or milk needs	
bottle feed practice	181 (57.5%)
4) Baby tonics/gripe water/balkadu/somva chautrisi/ Kumari aasav etc to be given to baby.	118 (37.5%)

prelacteal feeds still continue within our communities.

In this study 69.5% of mothers initiated breastfeeding in first hour which is high when compared to studies done in South India like Tamil Nadu with 55.4% of children being breastfed within first hour of life. Additionally mothers who underwent caesarian section, 79% answered that breastfeeding is essential for the baby.

Given the traditional beliefs and cultural practices in India (such as giving Glucose / Sugar / Jaggery/Honey or water), our study showed 52.1% still continue the practices which is still high compared to 33.5% from a study done in Rural areas of South India by Joseph N, Unnikrishnan B, *et al*.

In our study, 238 mothers (75.5%) were well aware about the knowledge of exclusive breastfeeding up to 6 months of age which is much higher than a similar study done in Vellore which shows only 22%. The mean duration of exclusive breastfeeding in a study in Mauritius is only 2 months and only 18% of the mothers exclusively breastfed their infants for the first six months.

In this study, 78.7% of mothers started complementary feeding after 6 months of age which is low compared to a similar study done in Pakistan by Khalil Ahmed, *et al* which showed 86% started complementary feeds at 6 months and 93% started at 10-12 months. This study had also enquired mothers on good latching practices and only 51.1% answered correctly ie, nipple and more of areola, 56.8% answered that baby should be breastfed at an interval of 2 hours and a total of 35.9% of the mothers knew that each feed should last for 10-20 minutes. A total of 66% of the mothers breastfed their infants upto two years of age.

CONCLUSION

In India where there is a growing potential of economic growth whose back bone are its younger generation, all measures are to be taken to promote their health & nutrition. This nutrition starts with breastfeeding and the appropriate inclusion of complementary feeds. This requires strategies aimed at promotion of breastfeeding and complementary feeding practices. There should be periodic surveys and awareness campaigns to assess the contributing factors of breastfeeding and complementary feeding practices. Regular training programs should be prepared for implementation by Obstetric and Pediatric doctors with the help of the nursing staff.

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