

Study of Different Feeding Patterns among the Children of Madhya Pradesh

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Conflict of interest: Nil

Abstract

Background: Malnutrition in the children is the most important health problem; undernutrition is associated with multiple diseases due to lack of immunity. Hence, quality and quantity of food are important for children's growth, including breastfeeding.

Method: 85 (eighty-five) children aged between 6 months to 18 months were selected for the study. The detailed history was obtained from their mother. The different feeding patterns, pre-lactateal feeding, time of inception of first feeding, and causes of stoppage of breastfeeding were studied and classified with percentages.

Results: In the study of the inception of the first feeding, 39 (45.8%) were < 6 hrs, 24 (28.2%) were 7-12 hrs, 11 (12.9%) were 12 to 24 hrs, 8 (9.41%) were between 25–48 hrs, and 3 (3.5%) were between 49–72 hours. In the study of pre-lactateal feeding, 18 (21.7%) were given honey, 41 (48.2%) sugar solution (water-added sugar), 17 (20%) plain water, and 9 (10.5%) milk. The reasons for the stoppage of breastfeeding were 25 (29.4%) due to insufficient breast milk, 18 (21.1%) maternal sickness, 17 (20%) infant sickness, 16 (18.8%) maternal employment, and 9 (10.5%) subsequent pregnancy.

Conclusion: The present study will be quite useful to pediatricians to evaluate the feeding pattern to prevent malnutrition, morbidity, and mortality in children.

Keywords: Morbidity, Mortality, Malnutrition, Pre-lactateal feeding, Breast feeding.

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Introduction

Childhood undernutrition is one of the most important public health challenges. Under-nutrition is associated with more than one-third of the global disease burden of under-five children. It is reported that, 35% of children under five years are prone to mortality due to undernutrition [1]. The quality and quantity of foods eaten are extremely important for development and have lifelong repercussions.

Breast milk alone is capable of meeting all children's requirements up to six months, but after this period it must be complemented with adequate foods in order to supply nutritional requirements and prevent infant morbidity and mortality [2], including malnutrition and overweight.

Any food other than breast milk that is given to a breastfeeding child is defined as complementary food [3].

From a nutritional point of view, premature introduction of complementary foods can be disadvantageous because it reduces the duration of breastfeeding, interferes with absorption of important nutrients from breast milk, and increases the risks of contamination and allergic reactions.

On the other hand, late introduction of complementary foods is also disadvantageous because children's energy requirements will not be met, resulting in a declaration of growth and increased risk of malnutrition and micronutrient deficiencies [4]. Hence, an attempt is made to evaluate the different feeding patterns in children.

Material and Method

85 children aged between 6 months to 18 months visiting the pediatric OPD of RKDF Medical College Hospital, Bhopal, Madhya Pradesh-462026 were studied.

Inclusive Criteria: The children with normal body weight and normal CVS report that the patients or guardians who gave their consent in writing for the study were selected.

Exclusion Criteria: Children having congenital anomalies, low birth weight, and non-cooperative mothers were excluded from the study.

Method: The detailed history of each child was recorded from their mother. The different feeding patterns, pre-lactateal feeding, time of inception of

first feeding, and causes of stoppage of breastfeeding were studied with percentage.

The duration of the study was August 2023 to October 2024.

Statistical analysis: Inception of first feeding in children, the study of pre lacteal feeding, causes of stoppage of breast feeding were classified with percentage. The analysis was done in SPSS software. The ratio of male and female was 2:1.

Observation and Results

Table 1: Study of inception of first feeding in children 39 (45.8%) children started first feeding less than six hour (< 6hrs), 24 (28.2%) after 7-12

hrs 8 (9.41%) started between 25-48 hrs, 3 (3.5%) started between 49-72 hrs.

Table 2:

Study of pre-lactation feeding in children – 16 (21.7%) honey, 41 (48.2%) sugar solution (water added sugar), 17 (20%) plane water, 9 (10.5%) milk.

Table 3:

Causes (reason) for stoppage of breast feeding in children – 25 (29.4%) due of insufficient breast milk, 18 (21.1%) maternal sickness, 17 (20%) Infant’s sickness, 16 (18.8%) maternal employment, 9 (10.5%) subsequent pregnancy.

Table 1: Study of inception of fist feeding in children (No. of children: 85)

Sl. No.	Duration	No of Children	Percentage (%)
1	< 6 hrs	39	45.8
2	7 – 12 hrs	24	28.2
3	13 – 24 hrs	11	12.9
4	25 – 48 hrs	8	9.41
5	49 – 72 hrs	3	3.5

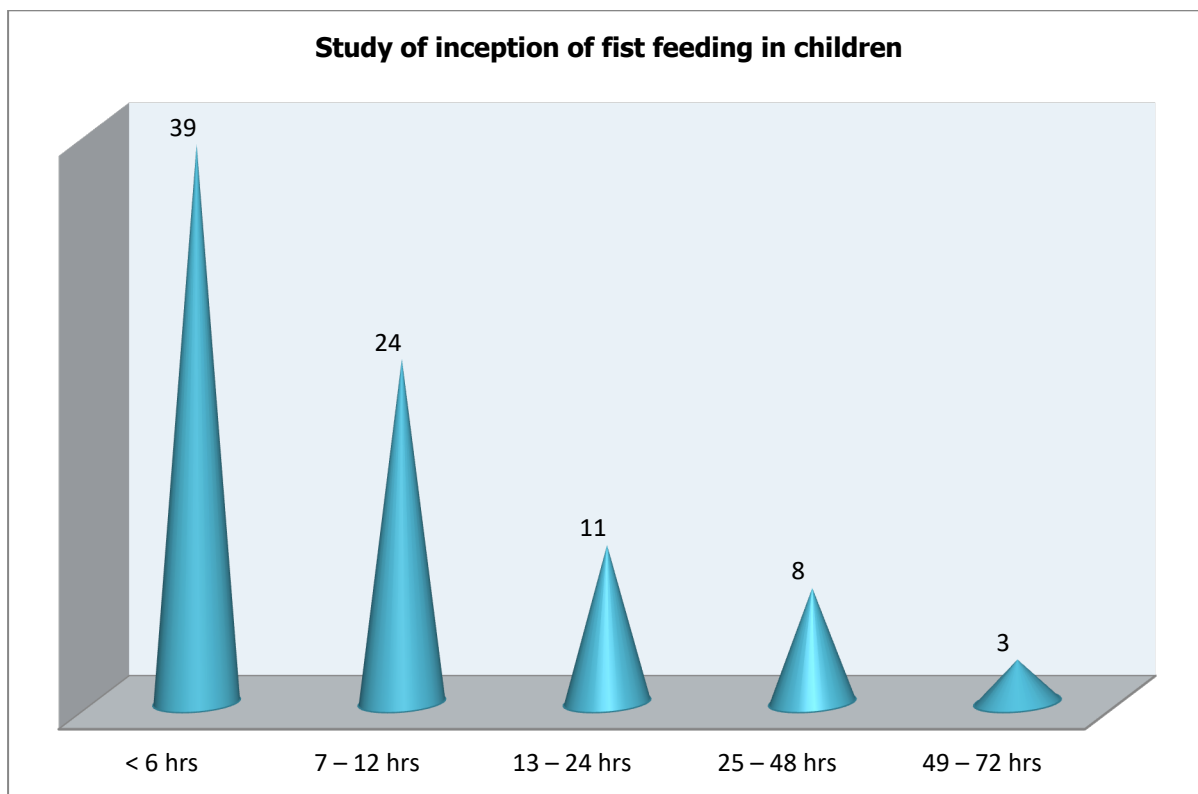


Figure 1: Study of inception of fist feeding in children

Table 2: Study of pre-lacteal feeding in Children (No. of Children: 85)

Sl. No	Name of Feedings	No. of Children	Percentage (%)
1	Honey	18	21.7
2	Sugar Solution (water added sugar)	41	48.2
3	Plane Water	17	20
4	Milk	9	10.5

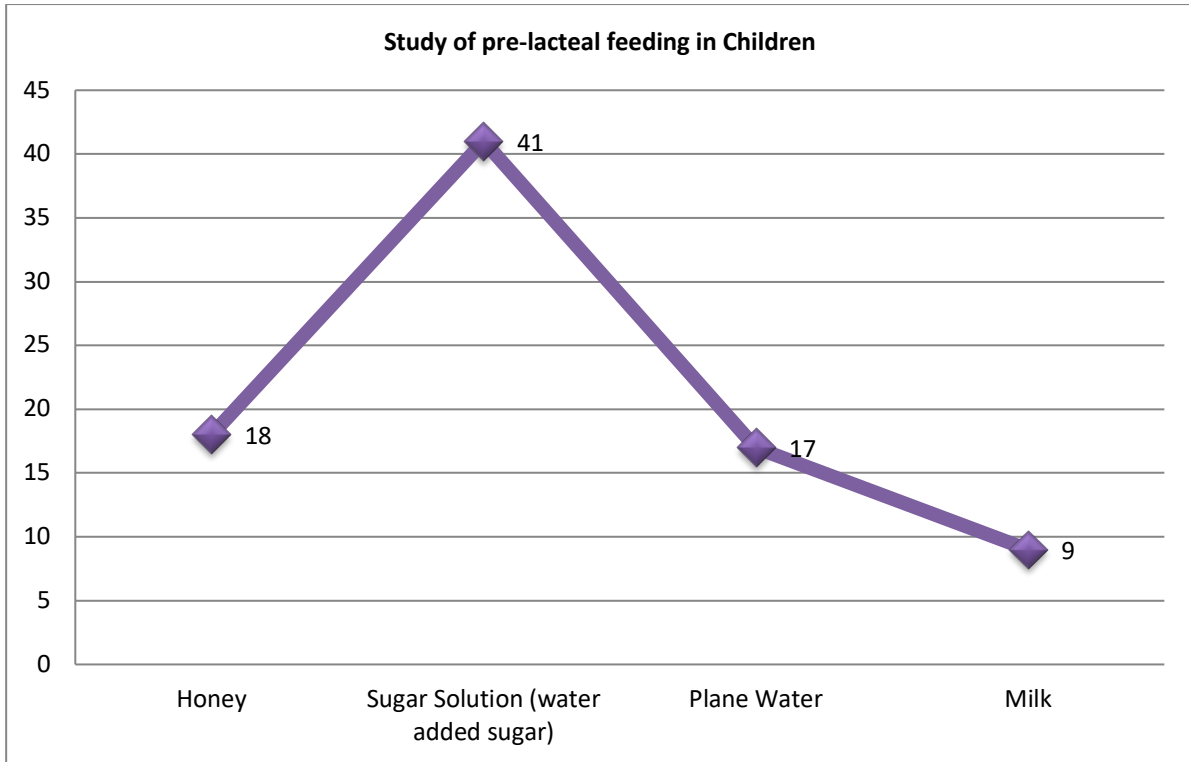


Figure 2: Study of pre-lacteal feeding in Children

Table 3: Causes (reasons) of stoppage of Breast feeding in children (No. of Children: 85)

Sl. No	Causes	No. of Children	Percentage (%)
1	Insufficient breast milk	25	29.4
2	Maternal sickness	18	21.1
3	Infant sickness	17	20
4	Maternal Employment	16	18.8
5	Subsequent Pregnancy	9	10.5

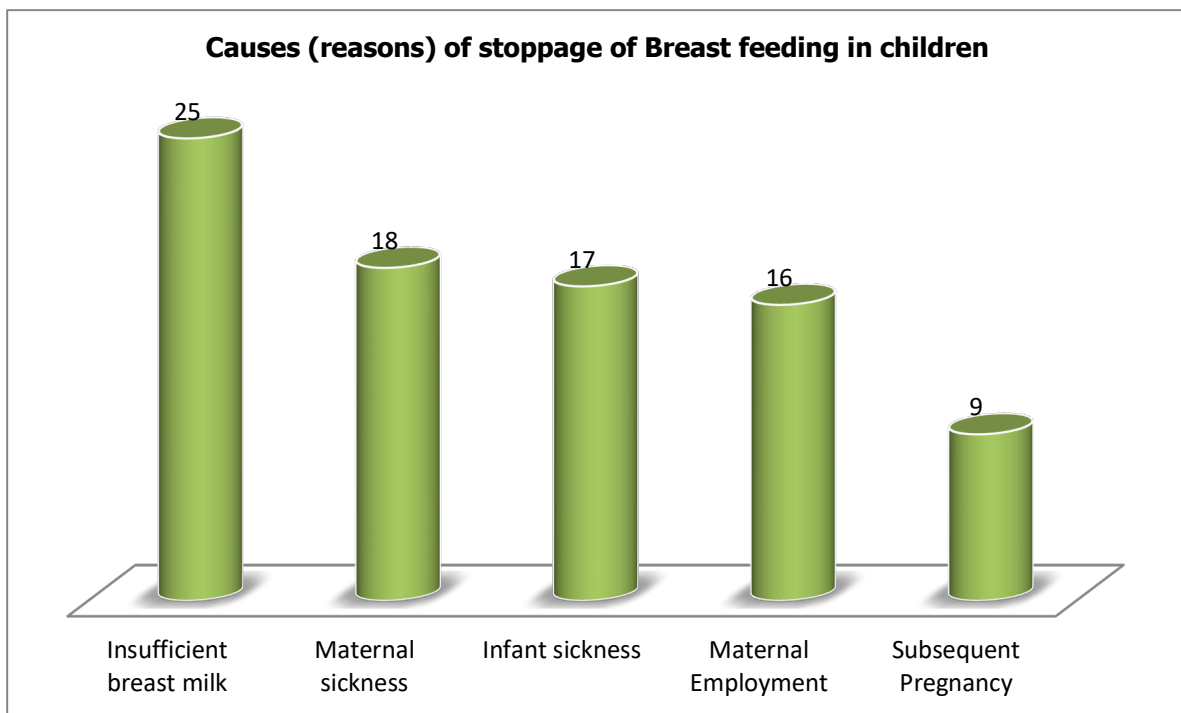


Figure 3: Causes (reasons) of stoppage of Breast feeding in children

Discussion

In the present study of different feeding patterns among the children of Madhya Pradesh. In the study of inception of first feeding in children – 39 (46.8%) started < 6 hrs, 24 (28.2%) after 7-12 hours, 8 (9.41%) between 25-48 hours, 3 (3.51%) started between 49-72 hours (Table-1). In the study of pre lactation feeding in children – 18 (21.1%) were given honey, 41 (48.2%) sugar solution, 17 (20%) plane water, 9 (10.5%) milk (Table-2). The causes of stoppage of breast feeding in children – 22 (29.3%) due to insufficient breast milk, 18 (21.1%) due to maternal illness, 17 (20%) infant illness, 16 (18.8%) maternal employment, 9 (10.5%) subsequent pregnancy, (Table-3). These findings are more or less in agreement with previous studies [5,6,7].

It is established fact that, Breast milk alone is capable of meeting all children's requirements up to six month provided mother is healthy, but after this period it must be complemented with adequate foods in order to supply nutritional requirement and prevent infants mortality, morbidity and malnutrition. Any food other than breast milk is defined as complimentary food [8].

Infants feeding practices are influenced by the family environment by information provided by health professional and also by the media through advertising by food manufacture [9].

WHO has proposed timely complementary feeding (TCF) indicator, for the children aged between 6 to 9 months who are still breast feeding and also eating solid and semi solid foods [10].

Excessive milky diets have been reported as cause of anaemia during first years of life liquid cow's milk; it is a poor source of iron and can also inhibit absorption of iron present in some other foods given concomitantly [11]. It was also reported that, elevated iron deficiency anaemia among the children under five years old, attributed the fact low breast milk intake and insufficient supply of nutrition in the diet [12] because majority of the children in the present study belonged to middle socio-economic status.

Summary and Conclusion

The present study of feeding patterns in children of Madhya Pradesh is useful to pediatricians and nutrition experts because the majority of the children are given complementary feeding in an unsuitable manner, which can have negative repercussions for their health.

This research paper was approved by Ethical committee of RKDF Medical College hospital, Bhopal, Madhya Pradesh-462026.

Limitation of study: Owing to remote location of research centre, small number of patients, lack of latest techniques we have limited finding and results.

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