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Complementary feeding practises among tea garden workers of Nahortoli and Dikom tea estate of Dibrugarh district, Assam

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Abstract

The present study was undertaken keeping in view the importance of practising breast feeding and complementary feeding at correct age for the proper growth and development of children of tea garden workers of two tea estates of Dibrugarh district. As there is a scarcity of literature on the complementary feeding practices in this region, the study was undertaken to find out the child feeding practises among the mothers of children aged six months to two years. 98% of the mothers under the study breast fed the child within 1 hour of the child birth. 95% of the mothers exclusively breast fed the child for 6 months. Only 5% of them continued exclusive breast-feeding for less than 6 months. 100% of the mothers under this study breast fed their child up to 24 months. Only 2% of them introduced complementary foods before 6 months which may be attributed to the insufficient production of milk. None of them were able to feed their child with commercially available complementary formula may be due to its high cost which is not possible for them to afford. 100% of them used family foods as complementary feeding. The result of this study would help in educating and counselling the prospective mothers about complementary feeding and findings of the study will assist programme implementers and stakeholders to make evidence-based decision in the improvement of children's health by promoting better feeding practices to reduce the prevalence of malnutrition in such areas particularly in the vulnerable first year of life.

Keywords: Exclusive breast feeding, child feeding practices, complementary feeding, Asha workers

1. Introduction

Infant feeding practices are important factors in determining growth and development of a child. Exclusive breast-feeding of infants for up to 6 months is recommended. And when breast milk is no longer sufficient to meet the nutritional requirements of the child, complementary feeding process is expected to begin. During the time of complementary feeding, the child progressively becomes habituated to consumption of family foods. A complementary food bridges the gap in nutrient intake which occurs in breast-fed infants at 6 months of age. Early initiation or late initiation of complementary foods may lead to nutritional deficiencies of iron, zinc, calcium, and vitamins. Common feeding practices by mothers during the complementary feeding period depend on the types of food given to infants and the adequacy and frequency with which the foods are fed. Food limitations due to cultural and traditional practices, unhygienic practices, food handling and responsive breast feeding are issues of concern for the period of the complementary feeding period for the child (Kruger and Gericke 2003) [1]. Malnutrition is one of the chief underlying causes of death contributing to more than a third of under-five deaths worldwide. Generally, the threat of malnutrition in the first 2 years of life has been directly related with deprived breastfeeding and complementary feeding practices along with elevated rate of infectious diseases (Arimond and Ruel 2004; Lutter and Rivera 2003) [2,3]. About 178 million children globally are stunted as malnutrition is one of the principal primary cause of death for many of the world's children contributing to more than a third of under-five deaths globally (WHO, 2012) [7]. In 2006, 9.5 million deaths of children of under-5 years of age and poor nutrition which increases the risk of illness contributed directly or indirectly to more than one-third of these deaths were estimated. Undernourished children are commonly prone to measles, malaria, diarrhoea, pneumonia and other illnesses (FMH and Save the Children 2011) [5].

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Evidence has shown that children who are malnourished and have deficiencies of micronutrients in their early life have a lifelong impairment of cognitive and physical development. Growth faltering due to inadequacy of complementary food in terms of quality, quantity and frequency of meals has also been reported (Mushaphi *et al.* 2008)^[4]. As there is a scarcity of literature on the complementary feeding practices in this region, the present study was undertaken to find out the practices of complementary feeding among the mothers of children aged six months to two years. The result of this study would help in educating and counselling the prospective mothers about complementary feeding and findings of the study will assist programme implementers and stakeholders to make evidence-based decision in the improvement of children's health by promoting better feeding practices to reduce the prevalence of malnutrition in such areas particularly in the vulnerable first year of life.

2. Methodology

A community-based, cross-sectional descriptive study was conducted in Nahortoli T.E. and Dikom T.E. of Dibrugarh district of Assam among mothers of children aged 6-24 months during March-June 2019. The age group of study subjects was selected based on WHO recommendation on complementary feeding (WHO, 2001)^[6]. After approval from concerned authorities, and consent from the subjects, mothers of 100 infants in total, were randomly selected for the study. A questionnaire (Table 1) was prepared for collection of information from the subjects and ASHA workers of the study areas. Mothers, whose babies were born premature, or were

admitted to the hospital for any reason, or had congenital malformations, were excluded from the study. As per WHO (2001)^[6] recommendations, the following operational definitions were used.

2.1 Complementary Feeding: Complementary feeding is defined as the process starting when breast milk alone is no longer sufficient to meet the nutritional requirements of infants, and therefore other foods and liquids are needed, along with breast milk.

2.2 Recommended Time of Initiation of Complementary Feed: Introduce complementary food at six months of age (180 days) while continuing to breastfeed.

2.3 Amount of Complementary food Needed: Start at six months of age with small amounts of food and increase the quantity as the child gets older, while maintaining frequent breastfeeding. The energy needed from complementary foods for infants of developing countries are approximately 200kcal per day at 6-8 months of age, 300kcal per day at 9-11 months of age, and 550kcal per day at 12-23 months of age.

2.4 Recommended meal Frequency: The appropriate number of meals of complementary foods should be provided 2-3 times per day at 6-8 months of age and 3-4 times per day at 9-11 and 12-24 months of age.

Data were collected through face-to-face interview method using a questionnaire and were analyzed using the SPSS software.

Table 1: Questionnaire used for the study.

Q. No.	Questions	Options (if any)
1	Name of Mother	-
2	Age	-
3	Educational Qualification	a. Upto 10 th standard b. HSLC passed c. HSSLC passed d. Graduate and above
4	Age at which 1 st child was born?	a. Less than 18 years b. 18 to 30 years c. 30 years and above
5	Is your child ever breast fed?	a. Yes b. No
6	When did you first breast feed your child?	a. within 1 hr of birth. b. 1-3 hours of birth. c. 3-6 hrs of birth d. After 6 hrs but within 24 hours
7	Until when did you exclusively breast feed the child?	a. Less than 6 months b. 6 months c. 6-12 months
8	Until when did you breast feed the child?	a. Less than 6 months b. 6-12 months c. 12-24 months
9	Did you give any pre lacteal feed? If Yes, please specify.	a. Yes b. No.
10	When complementary feeding was initiated?	a. Before six months b. At 6 months c. After 6 months
11	What type of complementary feed is given?	a. Commercial Formula b. Biscuits c. Daliya d. Juice e. Khichdi f. Kheer g. Fruits h. Rice water, Dal water.
12	Do you use family foods as complementary feed?	a. Yes

		b. No
13	How many times complementary feeding was given?	a. less than 3 times b. between 3 and 6 times c. more than 6 times

3. Results and discussion

At the time of the interview, 94% of the mothers studied up to class 10, 4% were 10th passed and 2% were graduates. This may be attributed to the disinterest of the parents to send their child to schools and instead engage them in work for income of the household and also marriage at early ages. 100% of the mothers gave birth to their first child at 18 to 30 years of age. Two of the mothers (2%) under the study, did not breast feed the child due to illness of the mother and no milk production of the lactating mother even after treatment. 98% of the mothers under the study breast fed the child within 1 hour of the child birth. It has been established that early breast feeding (<2 hours after birth) may have an advantage in reducing serum bilirubin levels, raising blood sugar, and increasing liver glycogen reserves and it is also associated with less weight loss and earlier regain of birth weight. 95% of the mothers exclusively breast fed the child for 6 months. Only 5% of them continued exclusive breast-feeding for less than 6 months which may be due to the schedule of the working mothers, failure to produce enough breast milk and unaware about the age until which exclusive breastfeeding to be done. It is very important to know the advantages of exclusive breast feeding to both child and mother which includes protection of children against various acute and chronic disorders. 100% of the mothers under this study breast fed their child up to 24 months. Many of the mothers under the study areas breast fed their child until the next child was born. None of the mothers gave any kind of pre-lacteal feed to their children. Awareness has been created by the

health planners and other community workers regarding this harmful practice of giving pre-lacteal feeds to the infants. 98% of the mothers introduced complementary foods at the age of 6 months. Only 2% of them introduced complementary foods before 6 months which may be attributed to the insufficient production of milk. Advice about breastfeeding and complementary feeding during antenatal Checkups and postnatal visits may help to improve feeding practices. Out of the given common complementary foods, Khicdi was very popular among all the infants (100%). 3% of them provided biscuits to their babies, Marigold being the most common and 38% of them gave fruits, Banana being the most frequently used fruit among all easily available fruits in the area. None of them were able to feed their child with commercially available complementary formula may be due to its high cost which is not possible for them to afford. 100% of them used family foods as complementary feeding. The frequency of feeding complementary foods to their child in this study area is 3 – 6 months (100%) for all. According to the WHO guidelines, EBF children should be given CF 2-3 times a day at 6-8 months and 3-4 times at 9-11 months and also at 12-23 months of age. IAP recommends complementary foods which are easily available, affordable and digestible and recommends three to five servings of complementary feeding every day to infants. The study reveals that there was a good amount of knowledge that existed among mothers regarding breast feeding and complementary feeding which was influenced by the ASHA workers of the community.



Fig 1: Interviewing the Respondents

4. Conclusion

In the present study, exclusive breast feeding and initiation of complementary feeding at the recommended time of six months was seen in the majority of children. This may be attributed to the community health workers who extended assistance and provided essential information to mothers about feeding practices and also monitored them for any guidance about child feeding practises. Feeding practises may be further improved if information about breastfeeding and complementary feeding are provided during antenatal checkups and postnatal visits. Area-specific programmes may be planned to create an enabling background for complete nutrition and health education of mothers/caregivers, health and nutrition workers. Besides, research activities in all aspects of child feeding practices should be emphasized and encouraged. Due to limited time and resources, we could not organize larger sample-size to generalize the results of our study for the whole population of tea garden workers under the district. Nevertheless, the findings of the study provide valuable information on the current status of complementary

feeding practices in the selected tea garden areas of the study.

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