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Study of complementary feed in the selected children's

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Abstract
Mother's knowledge regarding complementary feeding time is inadequate and practices are inappropriate. Hence due to different points of concerns this study has planned to know the mean age and influencing various factors with complementary feeding.
This study was a prospective interventional study conducted in the Department of Pediatrics at Anugrah narayan magadh medical college and hospital, gaya, From Jun 2015 to July 2016. A total of 50 mothers of those children visited the OPD department of hospital for the immunization was included in the study.
There is important relationship between deferred complementary feeding and malnutrition of the child. Deprived breastfeeding and unsuitable complementary feeding observes are the principal immediate causes of malnutrition throughout the first two years of life.
Hence it is important, that precise evidence and instruction should be prearranged to mothers and caregivers about suitable effectiveness of introducing complementary feeding, complementary feeding foods, preparation and performs to prevent malnutrition and improve the health status of the children.

Keywords: complementary feeding, children's, peadiatrics

Introduction

Baby food is any soft, easily consumed food, other than breastmilk or infant formula, that is made specifically for babies, roughly between the ages of four to six months and two years. The food comes in multiple varieties and tastes; it may be table food that the rest of the family is eating that has been mashed or otherwise broken down, or it can be purchased ready-made from producers.

As a global public health recommendation, the World Health Organization recommends that infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health. Most six-month-old infants are physiologically and developmentally ready for new foods, textures and modes of feeding [1]. Experts advising the World Health Assembly have provided evidence that introducing solids earlier than six months increases babies' chances of illness, without improving growth [2].

One of the health concerns associated with the introduction of solid foods before six months is iron deficiency. The early introduction of complementary foods may satisfy the hunger of the infant, resulting in less frequent breastfeeding and ultimately less milk production in the mother. Because iron absorption from human milk is depressed when the milk is in contact with other foods in the proximal small bowel, early use of complementary foods may increase the risk of iron depletion and anemia [2].

In Canada sodium content in infant food is regulated; strained fruit, fruit juice, fruit drink, and cereal cannot be sold if sodium has been added (excluding strained desserts). Foods naturally containing sodium are limited to 0.05 - 0.25 grams per 100 grams of food, depending on the type of infant food [3].

Newborns need a diet of breastmilk or infant formula. About 40% of the food energy in these milks comes from carbohydrates, mostly from a simple sugar called lactose [4].

As shown in the 2008 Feeding Infants and Toddlers study, the overall diet of babies and toddlers, the primary consumers of baby food, generally meets or significantly exceeds the recommended amount of macronutrients. Toddlers and preschoolers generally ate too little dietary fiber, and preschoolers generally ate too much saturated fat, although the overall fat intake was lower than recommended. Micronutrient levels were typically within the recommended levels. A small group of older infants in the American study needed more iron and zinc, such as from iron-fortified baby foods. A substantial proportion of toddlers and preschoolers exceeded the upper recommended level of synthetic folate, preformed vitamin A, zinc, and sodium (salt) [5].

The World Health Organization recommends starting in small amounts that gradually increase as the child gets older: 2 to 3 meals per day for infants 6 to 8 months of age and 3 to 4 meals per day for infants 9 to 23 months of age, with 1 or 2 additional snacks as required.

Through the first year, breastmilk or infant formula is the main source of calories and nutrients.

Babies may be started directly on normal family food if attention is given to choking hazards; this is called baby-led weaning. Because breastmilk takes on the flavor of foods eaten by the mother [8], these foods are especially good choices [6].

Nestlé's Feeding Infants and Toddlers Study (FITS) of 2008 indicates that few American babies are fed baby food before the age of four months.

Mother's knowledge regarding complementary feeding time is inadequate and practices are inappropriate. Majority of them are not aware of the current recommendations and proper way

of doing it. Correct information and guidelines about complementary feeding is not reaching the target population. Because of False beliefs, customs and attitude of the mother tend to wean the child late where the babies are landing up in severe problem.

Hence due to different points of concerns this study has planned to know the mean age and influencing various factors with complementary feeding.

Material & Methods

This study was a prospective interventional study conducted in the Department of Pediatrics at Anugrah narayan magadh medical college and hospital, gaya, From Jun 2015 to July 2016. The study was approved by the hospital ethics committee. A total of 50 mothers of those children visited the OPD department of hospital for the immunization was included in the study. Mothers who failed to give consent for any reason were excluded from the study.

Predesigned proforma with questionnaire in local language was used to assess the knowledge of mothers on various aspects of Infant and Young Child Feeding (IYCF) practices. Those mothers who cannot read and write were asked questions in local language and the answers given were noted.

Results & Discussion

The data from the 50 case study who are dependent on the complement feed were recorded and presented in following tables.

Table 1: Demographic Characteristics

Variable (n = 50)	Number of cases
Age of child	
6 – 12 months	15
13 – 18 months	13
19 – 24 months	22
Total	50
Sex	
Male	27
Female	23
Total	50
Mothers education	
Literate	26
Illiterate	24
Total	50
Mothers occupation	
Working	10
House wife	40
Total	50
Residence	
Urban	40
Rural	10
Total	50
Malnutrition	
Under weight	17
Stunted	16
Wasted	17
Total	50

Table 2: Age of Complementary feeding started and Malnutrition

Age of complementary feeding (months)	No. of children's	Weight for Age	Length for Age	Weight for Length
		Under Weight %	Stunted %	Wasted %
< 6	11	5	3	3
6	8	3	5	0
7 – 8	10	4	3	3
9 – 11	9	3	2	4
12 – 24	6	2	2	2
Not started	6	2	1	1
Total	50	19	16	13

In the present study, information regarding complementary feeding was received from health persons is very less. Majority of the mothers did complementary feeding by self or previous experience and others had information from family or friends. Literature and media played a very minimal role in educating mothers regarding proper complementary feeding practices. There are very few Indian studies, about source of information regarding complementary feeding.

In the present study, most of the mothers started complementary feeding as they felt that their milk was not enough or insufficient and there was increased requirement by the child. There are many other studies, which have obtained similar reasons for complementary feeding [7, 8].

The main reasons for delayed complementary feeding were, not knowing the time when to start complementary feeding, misconceptions, customs and false beliefs prevalent in the community. Anju Aggarwal *et al*. study in Delhi also states that, delayed complementary feeding practices are due to poor knowledge, customs and beliefs [7].

The other reason for delayed complementary feeding was child not accepting or vomiting. Similar reasons for delayed complementary feeding were obtained in Anju Aggarwal *et al*. study [7] and other studies also [9, 10]. It was actually not vomiting but it was the child spitting out the food or not liking the taste of food. Hence, the mothers should be educated that the child has to develop the taste of foods and if they attempt and keep the food on child`s tongue, the child slowly will like it and start swallowing. It is important for the parents to know that feeding a child is a gradual process, which needs continuous trial and support.

Conclusion

There is important relationship between deferred complementary feeding and malnutrition of the child. Deprived breastfeeding and unsuitable complementary feeding observes are the principal immediate causes of malnutrition throughout the first two years of life.

Hence it is important, that precise evidence and instruction should be prearranged to mothers and caregivers about suitable effectiveness of introducing complementary feeding, complementary feeding foods, preparation and performs to prevent malnutrition and improve the health status of the children.

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