

Original Research Article

Knowledge and attitude of mothers regarding feeding practices among children of 6 months to 2 years of age visiting a tertiary care centre of Ahmedabad, Gujarat, India

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Received: 13 June 2019

Accepted: 19 July 2019

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ABSTRACT

Background: India is facing a grave challenge of having very high rates of child under-nutrition and a high infant and child mortality, which demands an urgent need for comprehensive multi-pronged evidence based strategy to tackle the situation. Breastfeeding offers the ultimate food during the first 6 months of life. Complementary feeding starts when breast milk is no longer sufficient by itself, the target age is between 6-24 months. Complementary feeding plays critical role in bridging these gaps between nutritional requirements and growth and development of child with increasing age. Complementary feeding strategies encompass a wide variety of interventions designed to improve not only the quality and quantity of these foods but also improve the feeding behaviors. In this review we analyzed knowledge and attitude of mother regarding feeding practices among children of 6 months to 2 years of age who had visited tertiary care centre.

Methods: Personal interview of mothers having a child in the age group of 6 months to 2 years of age in the duration of October 2017 to March 2018 visiting pediatric department at a tertiary care centre and willing to give information are included in the sample. The Questions regarding socio demographic profile, various occupations, type of feeding practiced, knowledge regarding feeding and complimentary feeding were included in Performa. Data was entered in MS Excel and analyzed using SPSS software.

Results: Almost 8 out of 10 mothers were literate in the study (77.80%). About 75% mothers didn't know the correct type of complimentary feeding to initiate for their babies. Knowledge about correct time of starting complimentary feeding was more commonly found in housewife mothers than the working mothers and findings was supported by statistical significance. Mothers with ≥ 2 children were using correct type of food for complementary feeding more commonly that with mothers having single child.

Conclusions: The present study highlighting knowledge gap and practice gap in mothers about complimentary feedings. Appropriate complementary feeding education emphasizing timely initiation and meal diversity is necessary to improve knowledge and feeding practices of mothers whether mother is educated or uneducated.

Keywords: Breast milk, Complimentary feeding, Nutrition

INTRODUCTION

The period during which other foods or liquids are provided along with breast milk is considered, the period

of complimentary feeding.¹ It refers to the timely introduction of safe and nutritional foods in addition to breast-feeding (BF) i.e. clean and nutritionally rich additional foods introduced at about six months of infant age.² Exclusive breastfeeding of infants from birth through initial 6 months using breast milk is important for optimal health, growth, and development. As newborn children develop and turn out to be progressively active after the initial half year of life, breast milk solitary fails the mark concerning giving the full nourishing necessities - where the gap continues growing with the expanding age of the babies and youthful youngsters. Complementary feeding plays critical role in bridging these gaps in children from 6 to 18-24 months of age.³⁻⁵ Complimentary feeding is an essential element in the care of young children. Complimentary feeding is defined by World Health Organization (WHO) as "a 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."^{6,7} Childhood malnutrition is prevalent in low and middle income countries and is associated with childhood deaths, diseases and infections, as well as children's delayed mental and motor development.⁸⁻¹² In most developing countries, childhood malnutrition rates rose significantly at 6 months of age when complementary foods starts being introduced.¹³⁻¹⁷ According to National Family Health Survey-3 data of India, about 20 million children are not able to receive exclusive breastfeeding (EBF) for the first six months, and about 13 million do not get good, timely and appropriate complementary feeding along with continued breastfeeding.¹⁸

Only 21% of breastfed children get the smallest amount of adequate complementary feeding diet, in Nigeria. However, in Ethiopia, only 4.2% of breastfed children of 6-23 months of age have a minimum acceptable diet.^{19,20} The problematic complementary feeding practices are associated with caretakers' poor knowledge, lack of information and being restricted by traditional beliefs.¹³⁻¹⁷ The present study is based on knowledge and practices among mothers of children between 6-24 months of age regarding complimentary feeding who came in tertiary care centre.

METHODS

The present study was carried out at G.C.S. Medical college, hospital and Research centre, Ahmedabad (a tertiary care centre). 410 patients were randomly selected from the O.P.D. and indoor patients of Pediatrics department of the centre who were in the age group between 6 to 24 months. The following notations were used in the formulae below to determine the sample size.

$$\text{SampleSize} = \frac{4 \times p \times (1-p)}{L^2} = \frac{4 \times 49.4 \times 50.6}{(4.94)^2} \\ = 409.7166 \approx 410$$

P = expected prevalence of children age 6-8 month receiving complementary feeding equals 49.4% (NFHS-4)

L² = is the level of precision or sampling error and equals 10% of p (i.e. 4.94). So, the sample size was determined as below:

Therefore, the adequate sample size for the study was 410. The mothers (or care-givers) of the patients, who were willing to participate in the study, were only enrolled in the study. Mothers of eligible study participants were interviewed regarding knowledge and feeding practices through pre-formed semi structured questionnaire. Health education regarding good complimentary feeding practices was given to each mother or care-taker of the participant for the better growth of the child after completing interview. Data was tabulated in Microsoft Excel and analyzed using IBM Corp. Released 2011. IBM SPSS Statistics for Windows, Version 20.0. Armonk, New York and Microsoft Excel 2007. Cramer's V is a statistic used to measure the strength of association between two nominal variables, and it takes values from 0 to 1. As the values goes near to 0 it points towards a weak association between the variables and as the values goes near to 1 point towards a strong association between the variables. P value less than 0.05 was considered significant.

RESULTS

Table-1 showed that 300 mothers out of 410 were between age group of 21-30yrs of age. Majority of children in this study were in age group between 6-12 months of age (70.73%). 82.93% of mothers were housewife. Almost 8 out of 10 mothers were literate in this study (77.80%).

Authors can see from Table-2 that 91 % of mothers knew about correct time of starting of complimentary feeding. Nutrition requirement was the correct major reason to start complimentary feeding after 6 months of age was said by almost half of mothers (51%). But about 75% mothers didn't know the correct type of complimentary feeding to initiate for their babies.

Table 3 showed that Knowledge about correct time of starting complimentary feeding and about main purpose for starting complimentary feeding was more common among literate mothers than illiterate mothers and both these findings were statistically significant. Knowledge about correct time of starting complimentary feeding was more commonly found in housewife mothers than the working mothers and findings was supported by statistical significance. Mothers with >=2 children were using correct type of food for complementary feeding more commonly that with mothers having single child. This finding was statistically significant with help of appropriate test of significance.

Table 1: Socio-demographic profile of participants (n=410).

Parameters		Frequency	Percentage
Gender of Child	Female	200	48.78%
	Male	210	51.22%
Child's Age (completed months)	06-12	290	70.73%
	13-18	86	20.98%
	19-24	34	8.29%
Mother's Occupation	Housewife	340	82.93%
	Working	70	17.07%
No. of Children	1	253	61.71%
	2	111	27.07%
	≥3	46	11.22%
Mother's education	Illiterate	91	22.20%
	Literate	319	77.80%

Table 2: Knowledge and practice of complimentary feeding.

Particulars about complimentary feeding		Frequency	Percentage
Knowledge about correct time of starting complimentary feeding	No	38	9.27%
	Yes	372	90.73%
Knowledge about main purpose for starting complimentary feeding	No	202	49.27%
	Yes	208	50.73%
Use of correct type of complimentary feeding	No	307	74.88%
	Yes	103	25.12%

Table 3: Relation between socio-demographic variables and particulars about complementary feeding.

Particulars about complimentary feeding		Mother's education		P-value	Cramer's V	Type of association (Significance)
		Illiterate	Literate			
Knowledge about correct time of starting complimentary feeding	No	2	36	0.008	0.13	Significant difference
	Yes	89 (24%)	283 (76%)			
Knowledge about main purpose for starting complimentary feeding	No	57	145	0.004	0.143	Significant difference
	Yes	34 (16.3%)	174 (83.7%)			
Use of correct type of complimentary feeding	No	66	241	0.558	0.029	No significant difference
	Yes	25 (24.3%)	78 (75.7%)			
		Occupation of mother				
		housewife	working			
Knowledge about correct time of starting complimentary feeding	No	26	12	0.013	0.123	Significant difference
	Yes	314 (84.4%)	58 (15.6%)			
Knowledge about main purpose for starting complimentary feeding	No	166	36	0.691	0.02	No significant difference
	Yes	174 (83.6%)	34 (16.4%)			
Use of correct type of complimentary feeding	No	254	53	0.859	0.009	No significant difference
	Yes	86 (83.5%)	17 (16.5%)			
		No. of children				
		1	≥ 2			
Knowledge about correct time of starting complimentary feeding	No	21	17	0.338	0.073	No significant difference
	Yes	232 (62.4%)	140 (37.6%)			
Knowledge about main purpose for starting complimentary feeding	No	127	75	0.708	0.024	No significant difference
	Yes	126 (60.6%)	82 (39.4%)			
Use of correct type of complimentary feeding	No	232	75	0.000	0.492	Significant difference
	Yes	21 (20.4%)	82 (79.6%)			

DISCUSSION

Complementary feeding is the systemic process of introduction of semisolid or solid food in infant at the right time in addition to mother's milk in order to provide needed nutrition to the baby. According to WHO, complementary feeding is the period wherein there is a transition from exclusive breastfeeding to family foods although breastfeeding is still continued.²¹ Knowledge of timing of initiation of complementary feeding was high (90.75%) similar to findings seen in Nigeria and in other studies.²²

The level of education and occupation of the mothers significantly should influence the complementary feeding practices. The prevalence in literate mothers regarding knowledge for starting complimentary feeding at right time is good ($p < 0.05$) which is similar to other studies.²² But in working mothers, knowledge for initiation of complimentary feeding at right time is low as compared to housewife mothers.

There is a lack of knowledge for complimentary feed regarding proper consistency and proper feed to be chosen for their children. Most of the mothers have given thin feeds then good consistency feed which showed a significance ($p, 0.05$) and it is similar to Indian and Nigerian studies.^{23,24} There is growing acknowledgment that most favorable complementary feeding depends not only on what is fed, as well as on how, when, where, and by whom the youngster is fed. Behavioral studies have revealed that a "laissez-faire" style of feeding predominates in some populations, with encouragement to eat rarely observed or observed only when children refused food or were ill.^{25,26}

Several intervention studies that included feeding behaviors as part of the recommended practices have reported positive effects on child growth, but it is not likely to disconnect the influence of responsive feeding from that of the other changes that occurred in breastfeeding practices and the types of complementary foods offered.^{27,28}

These highlights the 'practice gap' in complimentary feeding practice and need for intervention and this 'practice gap' can be bridged by increase female literacy regarding complimentary feeding through implementing nutrition education programmed and advice during immunization session. As infants grow, their nutrient needs grow with them. To keep up with these growing demands, W.H.O recommends that infants begin eating solid, semi-solid or soft foods at 6 months of age to ensure that their nutrient intake is sufficient to fuel their developing brains and bodies. The role of the mother during feeding is as important as the food itself: mothers need to interact and engage with the child, respond to his or her hunger signals, and encourage him or her to eat.

The scarcity in approach to inexpensive, nutrient-rich foodstuff is a fragmentary trouble for a lot of families around the planet. Repeatedly, solid and soft foodstuffs are initiated too soon or too late, the regularity and serving of foodstuff offered is in lesser amount of than essential for normal child's development, or the consistency or nutrient concentration of the foodstuff may be imperfectly selected for the child's needs.

Inadequate foodstuff and hygiene traditions are linked to a variety of issues like lack of education of mothers, beliefs and cultural taboos, the workload of the mother, poor availability to resources, poverty, and food insecurity. The promotion of detrimental foodstuffs to kids is also an obstacle to fine nourishment.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the GCS Medical College Hospital and Research Centre. GCSMC/IC/TRIAL/APPROVE/2017/1184

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Cite this article as: Parikh RH, Tolani JN, Shah ND. Knowledge and attitude of mothers regarding feeding practices among children of 6 months to 2 years of age visiting a tertiary care centre of Ahmedabad, Gujarat, India. *Int J Contemp Pediatr* 2019;6:2132-6.