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Knowledge, attitude, practice on complementary feeding of young mothers

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Abstract

Background: Complementary feeding has been defined as the process breast milk is no longer sufficient to meet the nutrition of the infants hence the complementary food implies as the cessation of Breastfeeding usually refers to the age range of 6-24months. Aim of the study is to assess the socio-demographic, KAP on infants feeding and weaning among mothers of not more than 3years of children

Methods: The study was carried out involving 103 infants feeding and weaning mothers aged 18-40 years from in and around Tamilnadu. The technique used to collect the data was convenience sampling method using direct and online questionnaire method. The prepared questionnaire is used to record the socio-demographic, KAP among the selected respondents.

Result: The study reveals that respondents were aged from 18-40 and 65% follows Hindu religion. 39% were educated with master's degree, 59% were homemaker, and their income is from <25,000 (33%) and 25-50,000 (27%), 55% were male child, 44% were female child. The most of the mothers starting complementary feeding at 9months (40%) and initiation of breast milk after delivery were within one hour of birth (60%). All the mothers prefer homemade foods (110%) rather than the commercial foods. 75% of mothers were comfortable with bowl and spoon for feeding infant and 80% of the mothers from the selected respondents follows good hygienic practices.

Conclusion: The study reveals significant association between knowledge of the mothers on complementary feeding and age of the mothers that the knowledge, attitude, practice on infant feeding and weaning mothers were inadequate among notable respondents and the timing and duration of complementary feeding were inappropriate. False beliefs customs and attitude of the mothers tends to wean the child late. The poor breastfeeding and inappropriate complementary feeding practices the principle proximate causes of malnutrition during the first two years of age. Hence the education was given from proper breastfeeding to introduce the complementary feeding at right age with right amount of food.

Keywords: Complementary feeding, breastfeeding, commercial foods, malnutrition, weaning foods

Introduction

Infant and young child nutrition has been engaging the attention of scientists since long for the very reason that growth rate in the life of human beings is maximum during the first year of life and infant feeding practices, comprising of the breastfeeding as well as complementary feeding have major role in determining the nutritional status of the child. The link between malnutrition and infant feeding has been established. Recent study evidence reveals that malnutrition has been responsible, directly or indirectly for 60% of all deaths among children under 5 years annually. Over 2/3 of these deaths are often associated with inappropriate feeding practices that occur during the first year of life.

Breastfeeding is one of the most important determinants of child survival, birth spacing, and prevention of childhood infections. The importance of exclusive breastfeeding and immunological and nutritional values of breast milk have been well-demonstrated. The beneficial effects of breastfeeding depend on the initiation of breastfeeding, its duration, and the age at which the breastfed child is weaned. All infants should be fed exclusively on breast milk from birth to six months of age, and thereafter, while receiving appropriate and adequate complementary foods, breastfeeding should continue for up to two years of age or beyond. (Mahmood *et al*, 2012).

The process of gradual introduction of complementary foods into an infant's diet is essential for meeting the nutritional needs of infants in their first year of life. The decision around when to start introducing complementary foods to their infant is a dilemma faced by every mother.

WHO recommends that infants start receiving complementary foods at 6 months of age in addition to breast milk, initially 2-3 times a day between 6-8 months, increasing to 3-4 times daily between 9-11 months and 12-24 months with additional nutritious snacks offered 1-2 times per day, as desired (WHO,2009).

Inappropriate complementary feeding practice may result in malnutrition and cause various diseases. Malnutrition can also lead to obesity in adulthood which is a risk factor for many diet related non-communicable diseases such as hypertension, heart diseases, diabetes and some type's cancer. Previous studies on complementary feeding show low level of complementary feeding knowledge and appropriate practices. In South India, only 8% of mothers had proper knowledge of all aspects of complementary feeding only 13% of children aged 6-23 months met the minimum standards of the infant and young child feeding practices (IYCF, 2019).

Until now the researchers used to measure the infant and young child feeding practices in population based on survey has focused mostly on pregnant and breastfeeding practices. Considerations were not given to complementary feeding mothers. Inadequate knowledge about feeding practices may lead to malnutrition than lack of foods. Hence having a good knowledge and proper guidance on complementary feeding prevents the risk of poor feeding, malnutrition, and diseases in infant's window period.

Objective of the study

General objective

To assess the knowledge and practice about infant feeding and weaning among the mothers of 3 years children (toddlers)

Specific objective

- To assess the knowledge about weaning food and infant feeding among mothers of three years children
- To find out the attitude about infant feeding and weaning among the respondent
- To identify the infant feeding and weaning practice among the mothers
- To determine the relationship between socio-demographic characteristic and KAP of the respondents
- To create awareness among mothers on infant feeding and weaning foods

Materials and Methods selection of area

This study was conducted to assess the level of knowledge, attitude, practice among the infant and weaning mothers of under 6months to3 years children The subject are selected from in and around Tamil Nadu.

Selection of sample

About 103 samples of the complementary feeding mothers between the age group of 18-40 years were selected for this study. The technique for sampling adopted here was convenience sampling.

Inclusion criteria

All the infant feeding and weaning mothers aged 18-40 were included in this study.

Exclusion data

Physically challenged, not interested mothers were excluded in this study.

Formulation of questionnaire

The questionnaire was formulated to elicit information from the selected respondents recording socio-demographic, knowledge, attitude, and practice on complementary feeding. The collection of data was made easier with Google forms by online mode. The prepared questionnaire is given in appendix -1

Instrument for data collection

The prepared questionnaire was put into practice to elicit required information from the mothers Data collection was done by direct and online (Google forms) method. The following data was collected from the selected respondents.

✓ Socio- demographics

- ✓ Knowledge of complementary feeding
- ✓ Attitude of the mothers towards complementary feeding
- ✓ Complementary feeding practice of mothers

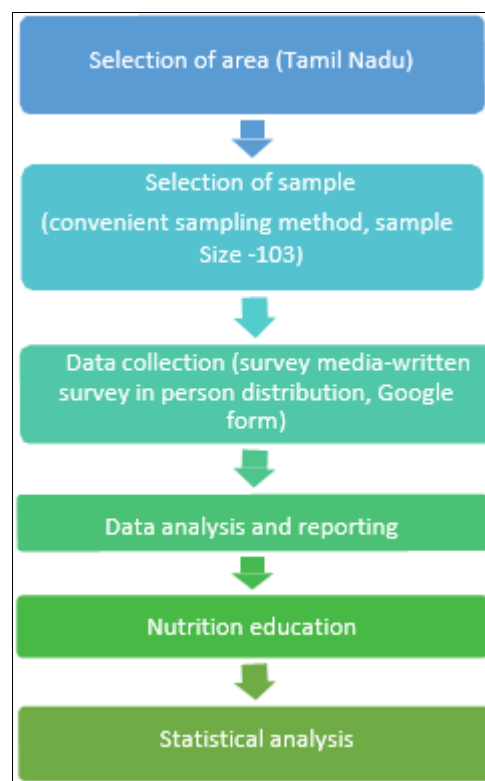
Nutritional education

Awareness was created by providing education to infant and weaning mothers through MS power point presentation.

Statistical analysis

The data was entered in Microsoft excel. The collected details were consolidated, tabulated and subjected to appropriate analysis via mean, standard deviation and percentage. Reference chart for the data was drawn with help Microsoft excel. ANOVA tests were done by using SPSS software.

Research design



Results

The selected respondents fall between the age categories of 18-40 years. Among them majority were between 26-30 years

of age. (Figure1) Our study noted that 65% of the respondents educated till master degree. follow religion Hindu and 39% of them were found to be

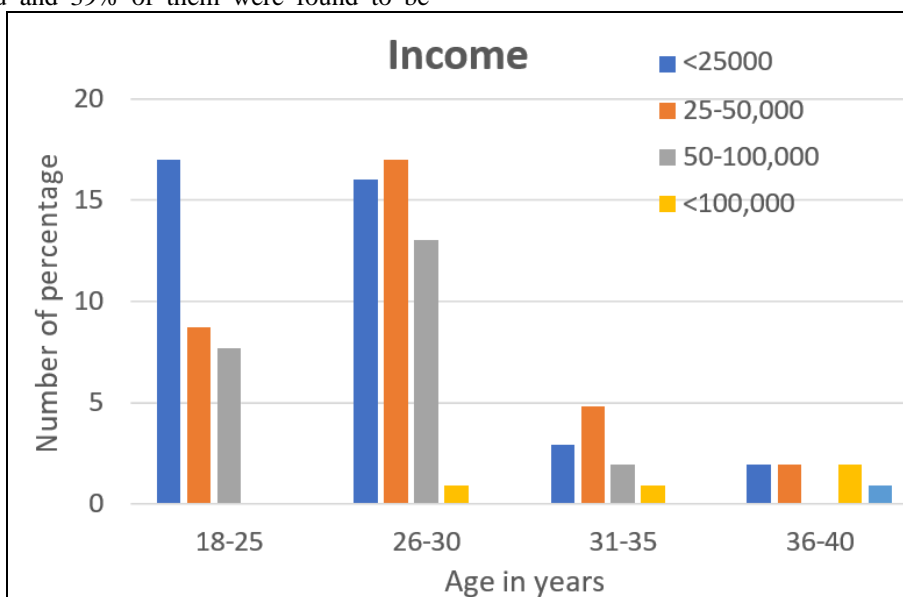


Fig 1: Income of the selected respondents

Occupation and income of the selected respondents

The selected respondents involved themselves in household activity only (50%) with total family income of 25-50,000 (27%) and <25,000 (33%) per month. (Figure 2) This result

concur with findings of olatona et al., 2017 who also found socio-demographic was about post-secondary level of education (64.5%).

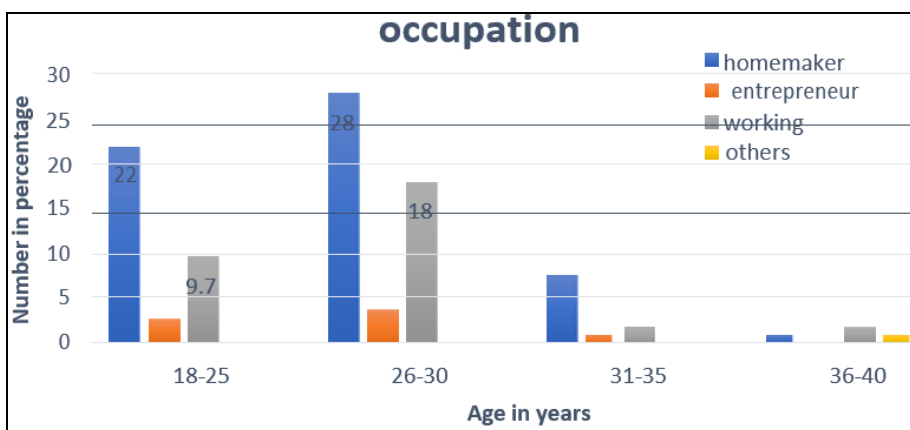


Fig 2: Occupation of the selected respondents

Table I: Feeding practices of the selected respondents

S.No	Feeding practices	Age in years							
		18-25		26-30		31-35		36-40	
Age of complementary feeding									
		No.	%	No.	%	No.	%	No.	%
1.	1. 2 months	3	2.9	3	2.9	1	0.9	1	0.9
	2. 5 months	9	8.7	7	6.7	0	0	1	0.9
	3. 6 months	9	8.7	7	6.7	0	0	1	0.9
	4. 9 months	11	10	25	24	4	3.8	2	1.9
Duration of breast feeding									
2.	1. >6months	2	1.9	1	0.9	1	0.9	1	0.9
	2. 6-8months	7	6.7	15	14	1	0.9	1	0.9
	3. 1 year	1	0.9	0	0	0	0	0	0
	4. More than one year	12	11	14	13	4	3.8	1	0.9
	5. 1-1 ½ year	4	3.8	5	4.8	1	0.9	1	0.9
	6. 2year	6	5.8	13	12	3	2.9	0	0
Initiation of breastfed after delivery									
3	1. Within one hour	22	21	28	27	7	6.7	1	0.9
	2. After 2hour	8	7.7	13	12	2	1.9	2	1.9
	3. ½ hour	6	5.8	5	4.8	1	0.9	1	0.9
	4. Not initiated	0	0	5	4.8	0	0	0	0

5.	Others	0	0	1	0.9	0	0	0	0
Duration of complementary in a day									
4.	1. <2 times	3	2.9	7	6.7	1	0.9	0	0
	2. 2-3 times	16	15	31	30	8	7.7	3	2.9
	3. 3-5 times	11	10	11	10	2	1.9	1	0.9
	4. 4-6 months	1	0.9	1	0.9	0	0	0	0

Age of complementary feeding

This table shows the Feeding practices of the selected respondents. In this table the most of the mother started their complementary feeding in the age of 3-5months (16.3%), 6months (16.3%), 7-9months (39.7%) And they feed mostly 2-3 times (55.6%) in a day. These findings concur with the

findings of Garoma study only 55.4% started complementary feeding at the age of 6months. And this table also shows that selected mothers, the initiation of breastfed after delivery were within one hour(55.6),half an hour(11.5%), after 2 hour(23.5%).(Figure 3)

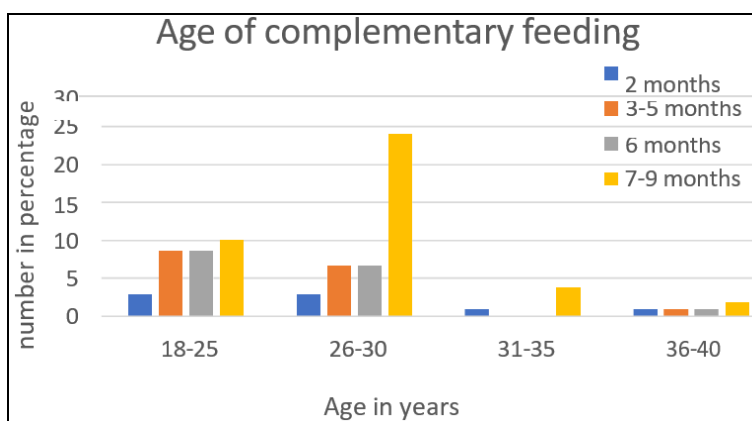


Fig 3: Age of complementary feeding of the selected respondents

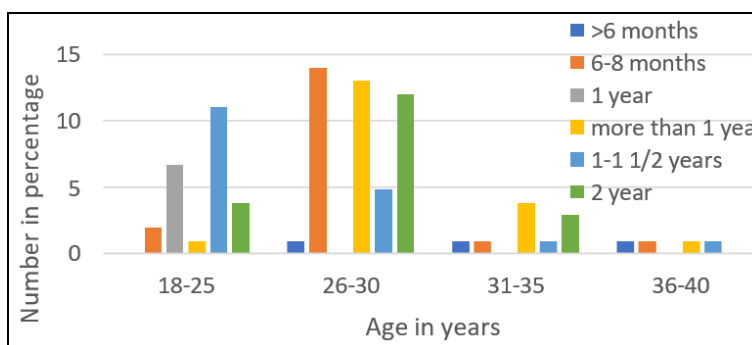


Fig 4: Duration of breastfeeding of the selected respondents

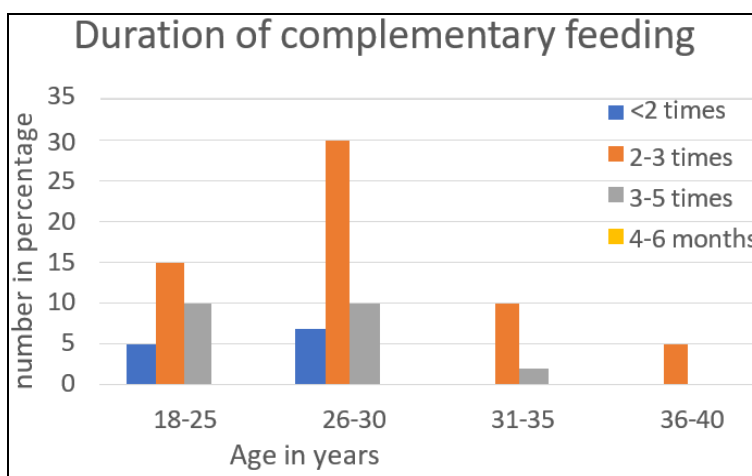


Fig 5: Duration of complementary feeding

Table 3: Breast feeding practices of the selected respondents

		Sum of Squares	df	Mean Square	F	Sig.	Sig. Level
Duration of breastfeeding child	Between Groups	5.290	3	1.763	.988	.402	NS
	Within Groups	176.691	99	1.785			
	Total	181.981	102				
Breastfeed after starting complementary feeding	Between Groups	.674	3	.225	.412	.745	NS
	Within Groups	54.044	99	.546			
	Total	54.718	102				
Initiation of breastfed after delivery	Between Groups	1.751	3	.584	.618	.605	NS
	Within Groups	93.511	99	.945			
	Total	95.262	102				
Duration of breastfeed in a day	Between Groups	5.542	3	1.847	2.867	.040	5%
	Within Groups	63.798	99	.644			
	Total	69.340	102				
Stop breastfeeding	Between Groups	7.301	3	2.434	1.755	.161	NS
	Within Groups	137.301	99	1.387			
	Total	144.602	102				

Table 3: Attitude of mothers towards complementary feeding

Attitude towards complementary feeding	18-25%	26-30%	31-35%	36-40%
a) a child can stop breastfeeding as soon as he can eat other meals				
1. Strongly agree	20	27	6.7	0.9
2. Agree	7.7	12	1.9	1.9
3. Disagree	5.8	4.8	0.9	0.9
4. Strongly disagree	0	4.8	0.9	0
5. Undecided	0	0.9	0	0
Total	33	50	12	4
b) locally available foods are cheaper than packaged foods				
1. Strongly agree	4.8	4.8	2.9	0
2. Agree	6.7	19	0.9	1.9
3. Disagree	9.7	17.4	2.9	1.9
4. Strongly disagree	5.8	3.8	0.9	1.9
5. Undecided	6.7	4.8	2.9	0
Total	33	50	11	6
c) packaged foods are more nutritious than locally prepared foods				
1. Strongly agree	2.9	6.7	0.9	0
2. Agree	7.7	5	0.9	0.9
3. Disagree	9.7	20.3	3.8	0.9
4. Strongly disagree	10.6	17.4	3.8	1.9
5. Undecided	1.9	0.9	0.9	0
Total	33	50	11	4
D) infants should eat from meals prepared for the household only at scheduled times				
1. Strongly agree	4.8	4.8	1.9	0.9
2. Agree	9.7	13.5	0.9	2.9
3. Disagree	8.7	20.3	2.9	0
4. Strongly disagree	3.8	8.7	2.9	0
5. Undecided	5.8	2.9	1.9S	0
Total	33	50.4	10.6	3.8

Table 4: Confidence interval of breastfeeding practices

	95% Confidence Interval for Mean								
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum	
1. Complementary Feeding	18-25	36	2.72	1.137	.189	2.34	3.11	1	5
	26-30	52	2.56	.916	.127	2.30	2.81	1	5
	31-35	11	2.18	1.079	.325	1.46	2.91	1	4
	36-40	4	2.25	.500	.250	1.45	3.05	2	3
	Total 18-25	103	2.56	1.007	.099	2.37	2.76	1	5
2. Age of complementary Feeding to be introduced	26-30	36	2.83	.941	.157	2.51	3.15	1	4
	31-35	52	3.02	.852	.118	2.78	3.26	1	4
	36-40	11	3.36	.924	.279	2.74	3.98	1	4
	36-40	4	2.25	.957	.479	.73	3.77	1	3
	Total 18-25	103	2.96	.907	.089	2.78	3.14	1	4

3. Duration complementary foods in a day	25	36	2.53	1.028	.171	2.18	2.88	1	5
	26-30	52	2.19	.793	.110	1.97	2.41	1	5
	31-35	11	2.18	.603	.182	1.78	2.59	1	3
	36-40	4	2.25	.500	.250	1.45	3.05	2	3
	Total 18-103	103	2.31	.864	.085	2.14	2.48	1	5
4. Risk of starting Complementary feeding late	25	36	2.42	1.025	.171	2.07	2.76	1	4
	26-30	52	2.33	1.004	.139	2.05	2.61	1	4
	31-35	11	2.91	1.044	.315	2.21	3.61	2	4
	36-40	4	2.00	1.414	.707	-.25	4.25	1	4
	Total 18-103	103	2.41	1.033	.102	2.21	2.61	1	4
	25	36	1.53	1.108	.185	1.15	1.90	1	5
	26-30	52	1.50	.960	.133	1.23	1.77	1	4
	P	11	1.91	1.578	.476	.85	2.97	1	5
	31-35	4	1.00	.000	.000	1.00	1.00	1	1
36-40	10	1.53	1.074	.106	1.32	1.74	1	5	

Table 5: Feeding practices of the selected respondents

Feeding practices		Sum of Squares	DF	Mean Square	F	Sig.	Sig. Level
1. Feeding the child in a day	Between Groups	12.089	3	4.030	3.125	.029	5%
	Within Groups	127.659	99	1.289			
	Total	139.748	102				
2. Feeding the child	Between Groups	2.265	3	.755	2.208	.092	5%
	Within Groups	33.851	99	.342			
	Total	36.117	102				
3. Introducing new foods in a week	Between Groups	2.736	3	.912	.976	.408	NS
	Within Groups	92.565	99	.935			
	Total	95.301	102				
4. Addition salt /sugar to child	Between Groups	.998	3	.333	.891	.449	NS
	Within Groups	36.229	97	.373			
	Total	37.228	100				
5. Use to feed your child	Between Groups	4.451	3	1.484	2.705	.050	5%
	Within Groups	53.193	97	.548			
	Total	57.644	100				
6. Feeds your child	Between Groups	.350	3	.117	.975	.408	NS
	Within Groups	11.610	97	.120			
	Total	11.960	100				
7. Thickness of your child's food	Between Groups	.119	3	.040	.105	.957	NS
	Within Groups	36.791	97				
	Total	36.911	100				

Discussion

The selected mothers were in the age range of 18-40 years. Out of 103 selected respondents for the study the 33% were 18-25 year, 52% were 26-30 years, 13% were 31-40 years were included. Among the selected population majority of the selected population are between 26- 30 years (52%). In socio-demographic characteristics 65% of the respondents follow Hindu religion. In this 39% of the respondents are found to be educated till master degree. From this study 59% of the selected respondents are homemaker and their household income was <25000(33%) and 25-50,000 (27%). Among the selected respondents 55% are male child and 44% are female child and most of the child age is <3months. In the feeding practices among the selected respondents most of the mother starts complementary feeding by 9months (40%) and they feed 2-3 times (60%) in a day. From the selected respondents 60% of mother initiation of breast milk after delivery was given within one hour. From this study the most of the 90% mothers prefers homemade foods rather than the commercial foods. From this 75% of the mothers were comfortable with bowl and spoon method for feeding their child. In this study 80% of the mother has good and proper hygiene practices, washing and sterilizing the utensils after feeding was 90%. Hence overall the KAP on complementary feeding mothers were high in age groups of 26-30 (52%).

Conclusion

The study reveals that the knowledge, attitude, practice on infant feeding and weaning mothers were inadequate among the respondents and the timing and duration of complementary feeding were inappropriate. False beliefs customs and attitude of the mothers tends to wean the child late. The poor breastfeeding and inappropriate complementary feeding practices the principle proximate causes of malnutrition during the first two years of age. Hence the education was given from proper breastfeeding to introduce the complementary feeding at right age with right amount of food.

Conflict of interest

The author's declare that they have no conflict of interest.

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