Knowledge on complementary feeding among parents of children aged 4-12 months attending a base hospital in a rural district in Sri Lanka

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Abstract

Introduction: In developing countries, inadequate knowledge on complementary feeding (CF) is one of the main reasons for malnutrition

Objective: To assess the knowledge on CF among parents of children aged 4 to 12 months attending a base hospital in a rural district in Sri Lanka.

Method: A descriptive cross sectional study was conducted in the paediatric ward and clinic of Base Hospital Bibile from April to June, 2016. A total of 383 parents of babies aged 4-12 months were selected by consecutive sampling. Their knowledge regarding CF was assessed by using a structured, pre-tested, interviewer-administered questionnaire. Questions were classified as 'must know', 'better to know' and 'good to know'.

Results*:* The response rate was 100%. Mean total knowledge score was 33.79 ± 4.3 (total 49) and the distribution was positively skewed. Mean knowledge scores were 7.08 ± 1.95 (total 11), 9.67 ± 1.88 (total 15), 17.03 ± 2.08 (total 23) in 'must know', 'better to know' and 'good to know' sections respectively. A significant correlation was only observed between age of the child and the total knowledge score ($p<0.05$). Only ethnicity ($p<0.005$) and religion ($p<0.05$) were significantly associated with total knowledge scores. Multiple logistic regression revealed only family income as a predictor for satisfactory knowledge among parents.

Conclusions: Parents of children aged 4 to 12 months attending Base Hospital, Bibile had satisfactory knowledge on CF.

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Introduction

Introduction of safe and nutritious foods at about 6 months of age in addition to breastfeeding (BF) is referred to as complementary feeding (CF)[1]. According to the World Health Organization (WHO), CF should be given timely, adequately and appropriately[2]. In developing countries, inadequate knowledge on CF is one of the main reasons for malnutrition[3]. Understanding the prevailing feeding practices of infants and young children is crucial for implementing or improving health and nutrition programmes in a country[4]. Some common feeding malpractices are early or delayed CF, offering foods with unsatisfactory energy and nutrient density, giving small amounts of food with thin consistency and cultural beliefs contributing to restrict or avoid some nutritious food[5]. The current study was undertaken in Bibile to find out the knowledge of parents on CF as such studies have not been carried out previously in the Moneragala District.

Objectives

To assess the knowledge on CF among parents of children aged 4 to 12 months attending a base hospital in a rural district in Sri Lanka.

Method

A hospital based descriptive cross-sectional study was carried out in the paediatric ward and paediatric clinic of Base Hospital (BH), Bibile from 1st April 2016 to 1st July 2016, a period of 3 months. The study population comprised the parents of 4-12 month old children admitted to the paediatric ward or attended paediatric clinic in BH, Bibile. Parents of children with known anomalies, cerebral palsy, malignant disorders or other chronic conditions, parents whose child was very sick needing emergency care, parents who failed to give consent for the study and parents whose child was on a special diet or on tube feeding were excluded.

Study sample: Consecutive sampling was done. All admissions to the paediatric ward and all who attended the paediatric clinic during the study period were included. The following formula was used to calculate the sample size[10]: $n = Z^2 p (100 - p) / d^2$ where n = calculated sample size, Z = Z value corresponding to the required level of

confidence (1.96), P = level of knowledge of parents on CF (50%) and d = required level of precision (7.5%)

$n = Z^2 p (100- p) / d^2$

$n = 1.96^2 * 0.5 * 0.5 / 0.075^2$

$n = 171$

Design effect was taken as 2

Final sample size = 171 x 2 = 342

Data collection: A structured, pre-tested, interviewer-administered questionnaire was used. The questionnaire was translated into Sinhala and Tamil by a medical person and re-translated into English by a non-medical person. Differences between the original English version and the translated version were sorted out by discussion. Variables in questionnaire included general information of child, general information of parent, knowledge on CF and source of information on CF. Two bilingual health volunteers were recruited as data collectors. Principal investigator also did data collection whenever possible. Half a day training and half a day practical experience were given by the principal investigator before the study proper. They were given a brief training in research, survey procedures, and ethics, including confidentiality in research prior to data collection. Each interview took 10-15 minutes and was based on the questionnaire which the data collector filled out simultaneously. The interview was conducted in a prearranged room in BH, Bibile at a time convenient to the parent. Only one parent was selected for the interview.

The questionnaire contained demographic and other relevant information. There were 49 questions to assess knowledge on CF. Once the interviewer completed the questionnaire, it was re-checked to determine whether all questions had been marked. The questionnaire was pretested with a sample of 25 eligible parents attending BH, Bibile. During the pre-test, special attention was paid to understanding the questionnaire, cultural acceptability, clarity, simplicity, response rate, quality of responses, and the time taken for completion. Following the pre-test a few modifications were made to the questionnaire. Each question was worded clearly and unambiguously to ensure uniformity. Jargon was avoided and questions worded in such a way that the "respondents" could understand and respond without difficulty. Confidentially was assured both verbally and in writing. A request was made in writing to the respondents to answer the questions truthfully. Re-administration of the questionnaire was done for non-respondents. Reliability was assessed by test re-test reliability method. Leading and presuming questions were avoided.

Data analysis: Data entry was done using epi-data software. Data analysis was done using SPSS 20.0. Percentage, proportions and contingency tables were used for description of data. Association of knowledge of CF with socio-demographic characteristics was analysed using the Chi-square test. A p value <0.05 was considered significant. Frequency distribution tables were prepared to describe knowledge on CF and sources of information gathered. The difference between two proportions was used for binary variables and Spearman r correlation coefficient was done to assess the significance against basic socio-demographic characteristics. There were 49 questions to assess their knowledge on CF of which 11 were identified as 'must know', 15 as 'better to know' and 23 as 'good to know'. Each correct answer was given 1 and each incorrect or don't know answer 0. Therefore, maximum possible mark was 49. Level of knowledge was categorized into four groups, 'highly satisfactory' when more than 75% knew correct answer, 'satisfactory' when 50-75% knew correct answer, 'not satisfactory' when 25-49% knew correct answer and 'highly unsatisfactory' when less than 25% knew correct answer.

Ethical issues: Ethical approval for the study was granted by the Ethics Review Committee of the Sri Lanka College of Paediatricians. Informed consent was obtained from each participating parent. They were given an opportunity to ask questions. All data collected were kept with the main investigator and used only for analysing outcome. There were no questions which disclosed any sensitive or confidential facts. This study did not involve any invasive or painful procedures. Permission to conduct the study was obtained from the Medical Superintendent, BH, Bibile and Regional Director of Health Services (RDHS), Moneragala.

Results

The study population comprised 383 parents of children aged 4-12 months, of whom 177 (46.2%) children were male and 203 (53%) were female with data missing in 3 (0.8%). Whilst 160 (41.8%) children were in the 4-6 month age group, 151 (39.4%) were in the 7-9 month age group and 69 (18%) in the 10-12 month age group data missing in 3 (0.8%). The mean age of the children was 8.01±8.429 years.

The main caregiver to child was the mother in 378 (98.7%) instances and the father in 04 (1%) instances with data missing in 01 (0.3%) instance. The monthly family income was less than 5000 Sri Lankan rupees (SLR) in 04 (1%) cases, 5000-25,000 SLR in 260 (67.9%) cases, 25,001-50,000 in 107 (27.9%) cases and 50,001- 75,000 SLR in 12 (03.1) cases. Of the 383 parents, 173 (45.2%)

had one child, 155 (40.5%) had 2 children and 54 (14.1%) had 3 or more children with data missing in 01 (0.3%) instance. Of the 383 main caregivers, 357 (93.2%) were Sinhalese, 12 (3.1%) were Tamil and 14 (3.7%) were Muslim. Considering religion, 358 (93.5%) were Buddhist, 11 (2.9%) were Hindu and 14 (3.7%) were Islam.

Table 1 shows the distribution of educational level of the parents in the study sample.

Table 1: ***Educational level of parents in sample***

Characteristic	No. (%)
Educational level of father	
No schooling	03 (0.8)
Grades 1-5	11 (02.9)
Grades 6-9	68 (17.8)
Grade 10	214 (55.9)
Grade 12	83 (21.7)
Technical education / training school	02 (0.5)
University or higher	01 (0.3)
Data missing	01 (0.3)
Educational level of mother	
Grades 1-5	05 (01.3)
Grades 6-9	66 (17.2)
Grade 10	238 (62.1)
Grade 12	72 (18.8)
University or higher	01 (0.3)
Data missing	01 (0.3)
Total	**383 (100)**

Fifty six percent of fathers and 62% of mothers studied up to Grade 10. Only 0.3% in each group had a university or higher education. Nearly 1% among fathers had no schooling.

Of the 383 main caregivers, 16 (4.2%) were employed and 367 (95.8%) were unemployed. In 215 (56.1%) instances extended family support was available at home whereas in 168 (43.9%) instances there was no extended family support.

Table 2 shows the type of occupation of the parents in the study sample. Ninety six percent of the mothers were house wives whereas 39% of the fathers were skilled agricultural and fishery workers. There were no professionals among the mothers while only 0.5% of the fathers were professionals.

Table 2: ***Type of occupation of parents in sample***

Characteristic	No. (%)
Occupation of mother	
Technicians and associated professionals	03 (0.8)
Clerks	03 (0.8)
Service workers and shop and market sales workers	02 (0.5)
Skilled agricultural and fishery workers	02 (0.5)
Craft and related trade workers	04 (1.0)
Plant and machine operators and assemblers	01 (0.3)
Elementary occupation	01 (0.3)
House wife	367 (95.8)
Occupation of father	
Professionals	02 (0.5)
Technicians and associated professionals	47 (12.3)
Clerks	21 (05.5)
Service workers and shop and market sales workers	58 (15.1)
Skilled agricultural and fishery workers	149 (38.9)
Craft and related trade workers	25 (06.5)
Plant and machine operators and assemblers	40 (10.4)
Elementary occupation	19 (05.0)
Armed forces and others	18 (04.7)
Data missing	04 (01.0)
Total	**383 (100)**

Analysis of the knowledge of main caregivers on CF is shown in Table 3.

Table 3: ***Analysis of the knowledge of main caregivers on complementary feeding (CF) (n=383)***

Question	Correct response	No. (%) giving correct response
What is the recommended age to start CF?	*From 6 months of age*	354 (92.4)
When can you introduce water to the child's diet?	*6-8 months of age*	333 (86.9)
When can you introduce fruits to the child's diet?	*6-8 months of age*	334 (87.2)
When can you introduce vegetables to child's diet?	*6-8 months of age*	350 (91.4)
When can you introduce fish to the child's diet?	*6-8 months of age*	323 (84.3)
When can you introduce meat to the child's diet?	*6-8 months of age*	280 (73.1)
When can you introduce egg yolk to child's diet?	*6-8 months of age*	268 (70.0)
When can you introduce sugar to the child's diet?	*After 1 year of age*	274 (71.5)
When can you introduce salt to the child's diet?	*After 1 year of age*	300 (78.3)
What age should a child be able to eat from the usual family diet?	*Around 1 year of age*	303 (79.1)
When should you introduce finger food to a child?	*After 8 months*	300 (78.3)
When should a child be fed?	*All regular times of day paying attention to child's hunger cues*	283 (73.9)
What is the best way of feeding a child after 9 months?	*Encourage self-feeding but sit by and assist*	338 (88.3)
How many main meals per day should be given by 9 months of age?	*3 to 4*	364 (95.0)
How many snacks can be given per day by 9 months of age?	*2*	335 (87.5)
Do you think that your child can be given feeds after 6:00 pm if necessary?	*Yes*	181 (47.3)
What will be the best environment to feed a child?	*Together with family*	270 (70.5)
What is the best position to feed a child?	*Seated*	353 (92.2)
When your child is ill, what would you do to the number of meals being offered to your child?	*Increase*	114 (29.8)

The responses to the question "*What do you think about adding some butter / oil for your child's meal?"* are shown in Table 4.

Table 4: ***Parent's knowledge about adding some butter/oil for child's meal (n=383)***

Question	Response - No. (%)		
	True	***False***	***Don't know***
Oil will help to increase calorie content	331 (86.4)	08 (02.1)	44 (11.5)
Oil will adversely affect child by increasing cholesterol level	126 (32.9)	144 (37.9)	113 (29.5)
Oil will help the enhance palatability	353 (92.2)	08 (02.1)	22 (05.7)
Oil will help to increase weight gain of child	361 (94.3)	05 (01.3)	17 (04.4)
Oil is not recommended for infants less than 9 months of age	42 (11.0)	282 (73.6)	59 (15.4)

Eighty six percent of main caregivers knew that oil will help to increase the calorie content. Thirty eight percent of main caregivers knew that oil will not adversely affect the child by increasing the cholesterol level. Ninety two percent of main caregivers knew that oil will enhance palatability and 94% knew that oil will increase weight gain of the child. Oil is recommended for infants less than 9 months of age and 73.6% main caregivers knew this fact correctly.

The responses to the question *"If the child refuses to take his/her meal, what are the proper ways of persuading him/her to eat?"* are shown in Table 5.

Table 5: ***If child refuses to eat his/her meal, what are the proper ways of persuading him/her to eat? (n=383)***

Question	Response - No. (%)		
	True	***False***	***Don't know***
Tell kindly and lovingly (data missing in 3)	379 (99.0)	0 (0)	01 (0.3)
Scold (data missing in 3)	03 (0.8)	376 (98.2)	01 (0.3)
Frighten/ threaten (data missing in 1)	03 (0.8)	375 (97.9)	04 (01.0)
Use physical restraints & forced feeding (data missing in 2)	09 (02.3)	364 (95.0)	08 (02.2)
Offer a variety of food with different tastes and textures (data missing in 1)	349 (91.1)	10 (02.6)	23 (06.0)
Tell stories during meals	342 (89.3)	22 (05.7)	19 (05.0)
Allow him to watch television	84 (21.9)	270 (70.5)	29 (07.6)
Take him out and show birds etc. (data missing in 1)	358 (93.5)	12 (03.1)	12 (03.1)

Ninety nine percent main caregivers knew that child should be talked to kindly and lovingly, 98% knew that scolding the child is a wrong practice, 98% knew that frightening/ threatening a child is a wrong practice and 95% knew that using physical restraint and forced feeding is wrong. Offering a variety of food with different tastes and textures is recommended to persuade the children to eat and 91% main caregivers knew this fact. Storytelling and taking the child out and showing birds are not recommended to persuade children to eat. Only 5.7% and 3% of the main caregivers respectively knew the correct answer. Allowing children to watch TV is not recommended as a method of persuading a child to eat and 70.5% of the main caregivers knew this.

The responses to the question "What should be the consistency of food which you offer at 6, 8 and 12 months of age?" are shown in Table 6.

Ideally smooth paste is recommended at 6 months of age, smashed with pieces at 8 months of age and whole grain/pieces at 12 months of age. More than 85% of the main caregivers knew the correct answer to each question.

Table 6: ***What should be the consistency of food you offer at 6,8 and 12 months of age? (n=383)***

Response	Number (%)
Consistency at 6 months	
Liquid	49 (12.8)
Smooth paste	331 (86.4)
Thick paste	02 (0.5)
Data missing	01 (0.3)
Consistency at 8 months	
Smooth paste	10 (02.6)
Thick paste	42 (11.0)
Smashed with pieces	327 (85.4)
Whole grain/pieces	02 (0.5)
Data missing	02 (0.5)
Consistency at 12 months	
Thick paste	01 (0.3)
Smashed with pieces	29 (07.5)
Whole grain/pieces	351 (91.7)
Data missing	02 (0.5)

The responses to the question *"In case the child develops diarrhoea, what would you do with feeds?"* are shown in Table 7.

Table 7: ***In case of the child develops diarrhoea, what would you do with feeds?***

Question	Response - No. (%)		
	True	***False***	***Don't know***
Avoid giving meat	231 (60.3)	110 (28.7)	42 (11.0)
Avoid giving fish	222 (58.0)	137 (35.8)	24 (06.2)
Avoid giving eggs (data missing in 1)	227 (59.3)	132 (34.5)	23 (06.0)
Avoid giving vegetables	01 (0.3)	377 (98.4)	03 (0.8)
Give usual food depending on child's appetite (data missing in 1)	141 (36.8)	182 (47.5)	59 (15.4)

The child should be given meat, fish, eggs, vegetables and usual food depending on child's appetite. Percentages of correct responses were 28.7%, 35.8%, 34.5% and 98.4% for meat, fish, eggs and vegetables respectively. Only 36.8% knew that the child should be given usual food depending on child's appetite.

The responses to the question *"Once you start complementary feeds, what would you do with BF?"* are shown in Table 8.

Table 8: ***Once you start complementary feeds, what would you do with breast feeding?***

Question	Response - No. (%)		
	True	***False***	***Don't know***
Continue with on demand breast feeding (BF) (data missing in 1)	264 (68.9)	92 (24.0)	26 (10.7)
Continue with regular and frequent BF (data missing in 2)	262 (68.4)	78 (20.4)	41 (10.7)
Reduce frequency of BF in daytime (data missing in 1)	170 (44.4)	151 (39.4)	61 (15.9)
Refrain from BF at least for 2-3 hours before a main meal	238 (62.1)	85 (22.2)	60 (15.7)
Can offer BF immediately after a main meal as substitute for water	161 (42.0)	148 (38.6)	74 (19.4)

On demand breast feeding is not recommended and only 24% of the respondents correctly answered. Regular and frequent breastfeeding should not be continued and only 20.4% of respondents answered correctly. It is recommended to reduce the frequency of breast feeding in daytime and only 44.4% of the respondents knew this fact. Refraining from breastfeeding at least for 2 to 3 hours before a main meal is recommended and 62.1% answered correctly. Breastfeeding can be offered immediately after a main meal as a substitute for water to enhance the calorie intake and only 42% knew this fact.

The responses to the question "Why do you think it important to be knowledgeable on the proper way of introducing complementary food to your child?" are shown in Table 9.

Table 9: ***Why is it important to know the proper way of introducing complementary food to your child?***

Question	Response - No. (%)		
	True	***False***	***Don't know***
Help minimize faltering of weight with weaning (data missing in 1)	350 (91.4)	07 (01.8)	25 (06.5)
Help reduce iron deficiency anaemia in children	170 (44.4)	121 (31.6)	92 (24.0)
Help prevent stunting	163 (42.6)	100 (26.1)	120 (31.3)
Help improve mental development (data missing in 1)	342 (89.3)	22 (05.7)	18 (04.7)

Ninety one percent knew correctly that it will help to minimize the faltering of weight with weaning. Only 44.4% of the respondents knew that it will help to reduce iron deficiency anaemia in children. Only 42.6% of the respondents correctly answered that it will help to prevent stunting. Nearly 90% of the respondents knew that knowledge on proper way of introducing complementary food is important to optimize your child's mental development and school achievements.

The responses to the question *"When you are preparing complementary food, are you influenced by anyone?"* are shown in Table 10. The majority said they were not influenced.

Table 10: ***When you are preparing complementary food, are you influenced by anyone?***

Question	Response - No. (%)	
	Yes	***No***
Are you influenced by mother (data missing in 1)	131 (34.2)	251 (65.5)
Are you influenced by grandmother	26 (06.8)	357 (93.2)
Are you influenced by mother-in-law (data missing in 1)	39 (10.2)	343 (89.5)
Are you influenced by spouse	39 (01.2)	344 (89.8)
Are you influenced by other relative (data missing in 1))	20 (05.2)	362 (94.5)

The responses to the question "How do you gather information on complementary feeding?" are shown in Table 11. The most common source was the Child Health Development Record (62%) followed by the Midwife (28.7%). Only 1.3% of the respondents said they gather information from hospital staff.

Analysis of the level of knowledge in the study sample is shown in Table 12.

Table 11: How do you gather information on CF? (*n=383)*

Response	No. (%)
From Child Health Development Record	238 (62.1)
From Midwife	110 (28.7)
From a relative	19 (05.0)
From staff members of hospital	05 (01.3)
From my friends	05 (01.3)
From the family physician	03 (0.8)
From public media	03 (0.8)

Table 12: ***Analysis of level of knowledge in the study sample***

Characteristic	Total knowledge (n=49)	'must know' (n=11)	'better to know' (n=15)	'good to know' (n=23)
Number	383	383	383	383
Mean	33.79	7.08	9.67	17.03
Standard error of mean	0.21	0.09	0.09	0.10
Median	34.0	7.0	10.0	17.0
Mode	35.0	7.0	9.0	18.0
Standard deviation	4.26	1.95	1.88	2.08
Minimum	13.0	0.0	2.0	9.0
Maximum	44.0	11.0	14.0	22.0
Percentiles 25	32.0	6.0	9.0	16.0
Percentiles 50	34.0	7.0	10.0	17.0
Percentiles 75	37.0	8.0	11.0	18.0

The mean total knowledge score was 33.79±4.26 and the distribution was positively skewed. Level of knowledge among parents was classified into 4 levels, highly satisfactory (>75%), satisfactory (50-75%), unsatisfactory (25-49%) and highly unsatisfactory (<25%) depending on the mean knowledge scores in each category of questions. Accordingly, each category showed satisfactory results. The total knowledge score was 69%, 'must know' category 63%, 'better to know' category 66% and 'good to know' category 73%.

Correlation between knowledge scores and selected socio demographic data is shown in Table 13.

Table 13: ***Correlation between knowledge scores and selected socio demographic data***

Characteristic	Number	Correlation coefficient	P value
Age of child	383	0.371	0.04; p<0.05
Number of children	383	- 0.016	0.76; p>0.05
Father's age	380	0.051	0.33; p>0.05
Mother's age	380	0.052	0.31; p>0.05
Monthly income	381	0.088	0.08; p>0.05
Father's education	382	0.058	0.26; p>0.05
Mother's education	382	- 0.025	0.62; p>0.05

A significant correlation was only observed between age of the child and the total knowledge score (p<0.05).

Relationship between knowledge scores and selected socio demographic data is shown in Table 14.

Table 13: ***Relationship between knowledge scores and selected socio demographic data (n=383)***

Characteristic	Number	Mean	Standard deviation (SD)	Standard error of mean	*P value
Sex (data missing in 3)					
Male	177	33.84	4.32	0.325	0.623;
Female	203	33.70	4.20	0.295	p>0.05
Main caregiver (data missing in 1)					
Father	04	31.50	2.88	1.44	0.43;
Mother	378	33.82	4.27	0.21	p>0.05
Ethnicity					
Sinhala	357	34.14	3.81	0.20	0.002;
Non Sinhalese	26	29.00	6.69	1.31	p<0.005
Religion					
Buddhists	358	34.17	3.84	0.20	0.01;
Non Buddhists	25	28.40	6.08	1.21	p<0.05
Parents' employment status					
Employed	16	34.68	3.43	0.85	0.23;
Unemployed	367	33.76	4.29	0.22	p>0.05
Extended family support					
Present	215	33.81	3.88	0.26	0.57;
Not present	168	33.77	3.77	0.36	p>0.05

**The test of significance used was the independent t-test*

Only ethnicity ($p<0.005$) and religion ($p<0.05$) were significantly associated with total knowledge scores.

Multivariate analysis of correlates
Direct logistic regression was performed to assess the impact of 4 independent variables (age, family income, religion and ethnicity) on the likelihood that respondents would report that they had satisfactory knowledge. Two independent variables, family income ($p<0.005$) and ethnicity (\ $p<0.05$) were significantly correlated with satisfactory knowledge. The strongest predictor of satisfactory knowledge was the family income.

Discussion
Most participants in the current study were Sinhalese Buddhists reflecting the ethnic and religious composition of the District. A hospital based study done in India in 2006 found that 46% of mothers had correct knowledge about recommended time for starting CF[6]. In our study 92% of main caregivers had correct knowledge regarding initiation of CF. Differences between the 2 studies may be due to the well-established community midwife service and high literacy rate in Sri Lanka.

Knowledge of main caregivers was 'highly satisfactory' (>75%) regarding the correct times to introduce water, fruit, vegetables, fish and salt to the child's diet, correct time a child should be able to eat from the usual family diet, the correct time to introduce finger food to their child, the correct consistency of food to be given to infants at 6, 8 and 12 months of age, the best way of feeding a child after 9 months of age, the number of main meals and the number of snacks that should be given per day by 9 months of age and the best position to feed a child. Knowledge of main caregivers was 'satisfactory' (50-75%) regarding the correct times to introduce meat, egg yolk and sugar to the child's diet, the correct time a child should be fed and the best environment to feed a child. Knowledge of main caregivers was 'unsatisfactory' (25-49%) regarding giving the child feeds after 6:00 pm when necessary and increasing the number of meals being offered when the child is ill.

Only 38% of parents knew that oil will not adversely affect the child by increasing the cholesterol level. It is recommended to continue with complementary food during an illness to maintain an adequate nutrient intake, which is vital for speedy recovery[7]. In our study, majority of parents had poor knowledge on correct feeding practices while child is having diarrhoea. Only 37% knew that child should be given the usual food depending on the child's appetite. A previous study in Sri Lanka reported similar results[8]. Only 20-24% of parents were aware that 'on demand' breast feeding and regular and frequent breastfeeding should be halted once CF has started. Only around 40% of parents were aware that CF will help reduce iron deficiency anaemia and help prevent stunting in children.

The current study used an interviewer-administered questionnaire which greatly reduced the number of unanswered questions compared to a self-administered questionnaire. The total knowledge score was 69%, the 'must know' category 63%, 'better to know' category 66% and 'good to know' category 73%. A significant correlation was only observed between the age of the child and the total knowledge score ($p<0.05$). Only ethnicity ($p<0.005$) and religion ($p<0.05$) were significantly associated with total knowledge scores.

There is a consistently noted link between proper infant feeding and the educational level of parents[9]. Mother's education was found to have a significant impact on appropriate infant feeding after a comparative study involving 5 Asian countries[10]. The present study did not find any association between parental education level and knowledge on CF. The present study revealed that the majority of the parents were not influenced by anyone when preparing complementary foods. The most common source of information on CF was the Child Health Development Record followed by the Midwife. This was a hospital based study and may not have represented the community as whole. It is possible to introduce recall bias in collecting information regarding feeding knowledge in retrospect. The bias is likely to be higher when a parent has more children.

Conclusions
Parents of children aged 4 to 12 months attending Base Hospital, Bibile had satisfactory knowledge on CF.

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