

Assessment of Knowledge, Attitude and Practice of Lactating Mothers on Complementary Feeding in Jimma Arjo Town, Eastern Wollega Zone, Western Ethiopia

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Abstract

A community based cross sectional study was conducted from March up to May 2014 among lactating mother in Jimma Arjo town, Eastern Wollega Zone. A systematic sampling technique was used to select study subjects and structured pretested questionnaire to collect the data. A total of 213 lactating mothers were enrolled in the study. Majority 72.3% of mothers started the complementary diet at appropriate age to their children. Most of the respondents, 195 (91.6%) were agree on infants have to only feed breast milk up to six month. Some of the respondents 205 (96.2%) have cultural related influence on administration of additional foods to children. The most frequently used diet for complementing was cow's milk followed by shiro fitfit; which have low nutritional value to the baby and only 46.5% of children fed more than 4 times per 24 hrs. The community knowledge, attitude and practice on complementary feeding was relatively good but the most frequently used food for complementary diet is cow milk which has low nutritional value for the children. Thus, proper health education should be given to dietary quality and quantity for complementary feeding in the study area

Keywords: Complementary Feeding, Knowledge, Lactating Mother, Jimma Arjo Town

Introduction

Infant and Young child feeding (IYCF) has the greatest single potential impact on a child's growth and survival (1). Breast feeding milk alone is enough to meet the nutritional needs of an infant up to the age of six months. It is the best way of providing the ideal food for the healthy growth and development of infants and its advantages range from physiological to psychological for both mother and infants (2). Breast feeding lowers infant mortality, especially that caused by diarrhea and acute respiratory infections (3). After six months of life, both appropriate and sufficient complementary food should be added to the breast milk so as to help it meet the nutritional requirements. This transition from exclusive breast feeding to family foods, referred to as complementary feeding. Typically covers the period from 6 to 18-24 months of age (4, 5, 6).

Inadequate complementary feeding lacking in quality and quantity can impair the growth of a child. Around the age of 6 months, an infant's need for energy and nutrients starts to exceed what is provided by breast milk and complementary foods are necessary to meet energy and nutrient requirements. At about 6 months of age, an infant is also developmentally ready for other foods. If complementary foods are not introduced when a child has completed 6 months of age, or if they are given inappropriately, an infant's growth may falter (7).

Malnutrition is one of the most important health and welfare problems among infants and young children in Ethiopia. It is a result of both inadequate food intake and illness. Inadequate food intake is a consequence of insufficient food available at the household level, or improper feeding practices, or both. Improper feeding practices include both the quality and quantity of foods offered to young children as well as the timing of their introduction (1).

In Ethiopia, exclusive breastfeeding until the infant is six months of age is 49%, and timely complementary feeding is at 54%. Continued breastfeeding in Ethiopia for two years and beyond is currently well below the WHO recommended standards. (6, 9, 10). This could be affected by knowledge, attitudes and practices on complementary feeding quality and quantity. Knowledge, attitudes and practices associated with infant and young child feeding forms an essential first step for any 'need-felt' for an intervention program designed to bring about positive behavioral change in infant health (11). However, it was not yet well documented in our study area. Thus, the aim of this study was to assess knowledge, attitude and practice of complementary feeding among lactating mothers in Jimma Arjo town, East Wollega Zone, Ethiopia

Methods and Materials

Study area

A descriptive community based cross sectional study was conducted from March up to May 2014 among lactating mother in Jimma Arjo town, Eastern Wollega Zone. The town is found in Oromia Regional state, Eastern Wollega zone; which is found at a distance of 377km from Addis Ababa and 48km from Nekemte. It is located at altitude of 1500-2400 meter above sea level. It has annual rainfall of 1800-2700mm with a temperature of 15-24oc. The town has a total population of 10,285 with composition of 49% and 51% male and female respectively and a total number of house hold is 12,569. And 6590 reproductive age group women (15-49 years) are found in catchment area according to the population projection base 2007/8.

Study population

The study population was volunteer lactating mothers who children whose age is between 6-36 months were included in Jimma Arjo town, Eastern Wollega Zone, Western Ethiopia.

Sample size determination and sampling technique

The sample size was determined using the formula of sample size determination for single population proportion ($n = \frac{(Z_{1-\alpha/2})^2 P (1-P)}{d^2}$). By the following assumptions: The level of confidence (α) is taken to be 95% ($Z_{1-\alpha/2}=1.96$); and the margin of error (d) is taken to be 5% [0.05]. The proportion (p) of prevalence of practice on complementary feeding was 51% (EDHS, 2011). The calculated sample size was 384 lactating mothers. Since total population is less than 10,000 the population correction formula was used: $nf = n/1+n/N$; where nf the adjusted sample size, nis the calculated sample size and N is total population of lactating mother in the study area (430). The calculated adjusted sample size was 203 lactating mother. A systematic random sampling was used with every k value of two ($k=N/nf=430/213=2$). Then we select every 2 value and the first sample selected by lottery method. A structured questionnaire was prepared and the respondents were interviewed by translation of the questionnaires from English to the local language (Afan Oromo) verbally by data collectors during data collection.

Data quality assurance

A pre tested structured question was done on 5% of the total sample size prior to actual data collection. The data collectors were given training on process of data collection and during the data collection consistent and accuracy the data were checked daily.

Data management and analysis

The collected data were processed and analyzed using tally sheet and scientific calculator. Descriptive statistics (frequency, percentage, range) used for description of findings. The data was summarized and presented in tables and graphs.

Ethical consideration

Before data collection ethical clearance was obtained from Wollega University, Department of Public Health Research Committee and permission was obtained from Jimma Arjo Town Officials. Verbal consent was obtained from respondents and confidentiality was kept.

Result

Socio-demographic characters of the respondents

A total of 213 mothers having index children whose age is between 6-36 months were included in this study. The majority of the respondents were age were from 26-30 years, 36% (76) followed by 21-25 years, 70 (33%). Most of them were married, 200 (94%) and Oromo, 207 (97.2%) by ethnic followed with Amhara accounts for 4 (2 %). Large proportion the respondents have Orthodox, 105 (49.3%) and Protestant, 98 (46%) religions. The majority of the respondent occupation was house wives, 135 (63.4%) and followed by merchants, government employee, and farmer which accounts for 38 (18%), 26 (12.2%), 9 (4.2%) and 5 (2.3%), respectively. Concerning Educational status, about 60 (28.2%) were 5-8 grade about 48 (22.5%) were illiterate about 40 (18.8%) were college/university and about 33 (15.5%) were 1-4 grade while 32 (15%) of respondents were 9-12 years. About 59 (27.7%), 43 (20.2%), 41 (19.3%), 30 (14.1%), 30 (14.1%) and 10 (4.7%) index children have 7-12 months, 19-24 months, 13-18 months, 25-30 months, 0-6 months and 31-36 months age respectively. Concerning parity 114 (53.5 %) was multipara while 99 (46.5%) were primipara (Table 1).

Table1. Socio-demographic characteristics of respondents in Jimma Arjo Town, Western Ethiopian from March 10 to May 20, 2014 (n=213).

Variables	Frequency	Per cent (%)
Age of mothers		
15- 20	24	11.3
21- 25	70	33
26-30	76	36
31-35	26	12.2
36-40	15	7
>40	2	1
Marital status		
Married	200	94
Divorced	5	2.3
Widowed	8	4
Occupation		
Housewife	135	63.4
Merchant	38	18
Employee	26	12.2
Farmers	9	4.2
Others	5	2.3
Education status		
illiterate	48	22.5
1-4	33	15.5
5-8	60	28.2
9-12	32	15
College/university	40	18.8
Relation to child		
Mother	206	96.7
Grand mother	4	1.8
Others	3	1.4
Age of index child		
0-6month	30	14.1
7-12month	59	27.7
13-18month	41	19.3
19-24month	43	20.2
25-30month	30	14.1
31-36month	10	4.7
Parity		
Multipara	114	53.5
Primipara	99	46.5

Knowledge of lactating mothers on complementary feeding

Majority of the respondents were known as the complimentary feeding is started at six months of age 154 (72.3%) but some responds as it was started before six months 33 (15.5%), between 7-12 months 20 (9.4%) and after 12 months 6 (2.8%). Most of the respondents 204(95.8%) have a knowledge on variety of food help the child for growth and development while some of them 9 (4.2%) were not have a knowledge at all (Table 2).

Table 2: knowledge on age of starting complementary feeding of lactating mothers in, Jimma Arjo Town, Western Ethiopian from March 10 to May 20, 2014 (n=213).

Variables	Frequency	Per cent
Age of starting CF		
<6month	33	15.5
At 6month	154	72.3
7-12month	20	9.4
>12month	6	2.8
Does Varity of food help child?		
YES	204	95.8
NO	9	4.2

Attitude of lactating mothers on complementary feeding

Most of the respondents were agree on infants have to only feed breast milk up to 6 month, 195 (91.6%), agree on complementary feeding start at 6 month 200 (93.9%), they didn't think infant need additional foods 203 (95.3%) and they did have cultural related influence on administration of additional foods to children 205 (96.2%). Most of respondents also agree on importance of giving vegetable & fruit after 6 month 198 (93%) and like to give eggs and milk products as CF 208 (97.7%) (Table 3).

Table 3: Attitude on lactating mother on complementary feeding in Jimma Arjo Town, Western Ethiopian from March 10 to May 20, 2014 (n=213).

Variables	Frequency	Per cent (%)
Do you think infant need additional foods?		
Yes	10	4.7
No	203	95.3
Is there any cultural influence related to administration of additional foods to children?		
Yes	8	3.8
No	205	96.2
Do you agree complementary feeding start at 6 month?		
Yes	200	93.9
No	13	6.1
Is it good to give only breast milk up to 6 month?		
Yes	195	91.6
No	18	8.4
Do you like to give meat after 6 month for your child?		
Yes	142	66.6
No	71	33.3
Is it good to give vegetable & fruit after 6 month?		
Yes	198	93
No	15	7
Do you like to give eggs & milk products as CF?		
Yes	208	97.7
No	5	2.3

Practices on complementary feeding

A total of 195 (91.5%) mothers have already started complementary diet to their children. Out of these, 154 (72.3%) started complementary diet to their children at 6 months of age, 91 (46.6%), 85 (43.6%) and 19 (9.7%) they feed their children complementary diet more than four, three to four and one to two per day, respectively (Figure 1). The constitute of index child diet was 159 (53.5%) breast milk and cow's milk, 77 (25.9 %) shiro fitfit, 27 (9.1%) abish, 18 (6.1%) breast milk only and 16 (5.4%) gruels (Table 4).

Most of mother feed their children more than three times per day 190 (61%), increase amount & frequency of feeding when child become sick, 137 (64.3%), they feed any vegetables yesterday, 141 (66.2%). All of them wash their hand and utensils before and after preparation of foods for their child (Table 4).

Table 4: Practice of lactating mothers on complementary feeding Jimma Arjo Town, Western Ethiopian from March 10 to May 20, 2014 (n=213).

Variables	Frequency	Per cent (%)
Age of starting CF for index child		
6 months of age	154	72.3
Before 6 months	59	27.7
What do you feed you index child currently?		
Breast milk only	18	6.1
Breast milk & cow milk	159	53.5
Gruel	16	5.4
Abish	27	9.1
Shirofitfit	77	25.9
How many times did you feed your child yesterday?		
1-2 times	23	10.8
3-4 times	107	50.2
>4 times	83	39
Type of food given yesterday		
Meat	7	2.3
Egg	103	33.1
Milk& milk product	151	48.5
Fruits &Vegetables	50	16.1
Do you increase amount and frequency of feeding when child become sick?		
Yes	137	64.3
No	76	35.7
Did your child feed any vegetables yesterday?		
Yes	141	66.2
No	72	33.8
Did you wash your hand, utensils before and after preparation of foods for child?		
Yes	213	100
No	0	0

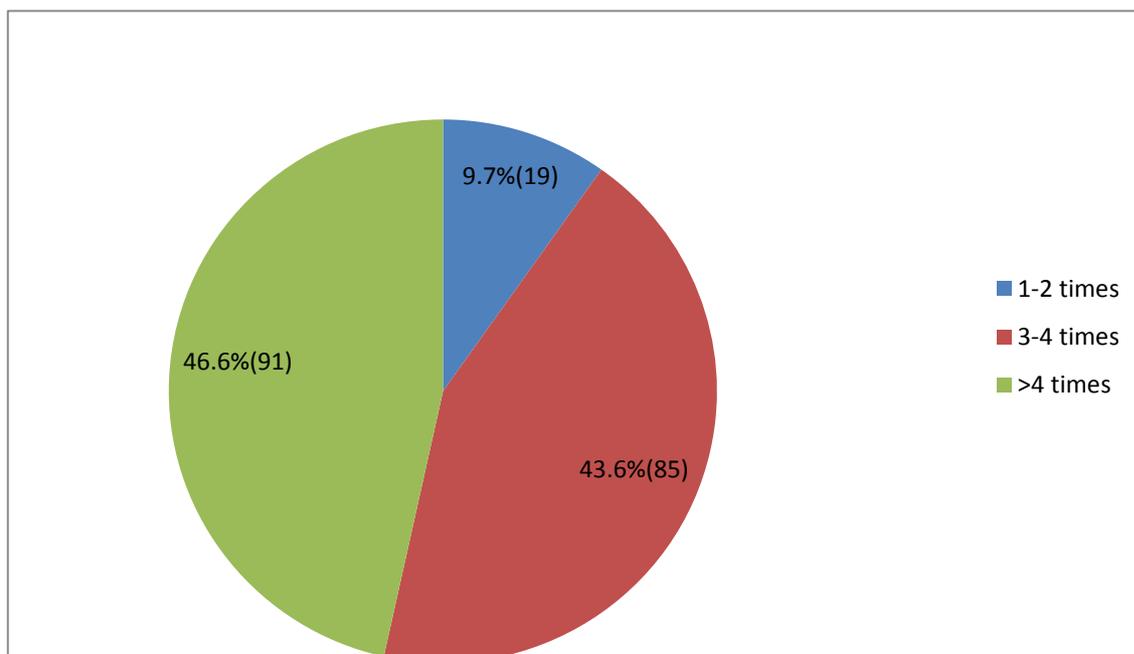


Figure 1: Frequency of complementary feed for child per day in Jimma Arjo Town, Western Ethiopian from March 10 to May 20, 2014 (n=195).

Discussion

In the present community based study, age at initiation of complimentary feeding, infrequent feeding and wrong complimentary feeding knowledge, attitude and practice are obviously critical factors affecting child health and this study was carried out to determine knowledge, attitude and practice of complementary feeding among lactating mothers in the study area.

In the study, 154 (72.3%) of mothers timely started complementary feeding at six months to their children, while 33 (15.5%) and 26 (12.2%) of mothers started complimentary feeding diet to their children early and beyond six month respectively. This was consistent with the study done in India 74% (12) but slightly higher than the study result done in Hararer 54.4% (13) and national level 54% (14). This observed difference could be related to good knowledge and the attitude the community on infant and young children feeding system that found in the study. In addition, in the study all most all respondents were understood the value if vary food during complementary feeding. Cow milk was the dominate addition food used for young and infant in the study area which consistent with previous studies area on optimal breast feeding (15, 16).

Conclusion

The communities' knowledge, attitude and practice on complementary feeding were relatively good in the study area. The majority of the lactating mothers started the complementary diet at appropriate age to their children. The most frequently used diet for complementing was cow's milk followed by shiro fitfit which have low nutritional value to the baby and only 46.5% of children fed more than 4 times per 24 hrs. Thus, proper health education should be given to dietary quality and quantity for complementary feeding in the study area.

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Author Contributions

Tsedeke Wolde, Melese Chogo, Gabu Bariso, Obsa Dinka, Oiyad Abire, Samu'el Asfaw and Seid Assen designed the study and collect data. Tsedeke Wolde, Melese Chogo, Eyasu Ejeta and Tadesse Birhanu analysis data and drafted the manuscript. All authors read, critically revised and approved the final manuscript.

Conflict of Interest

The authors declare no conflict of interest

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