SOCIO - CULTURAL FACTORS RELATED TO BREAST FEEDING IN JIMMA TOWN - 1987

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SUMMARY

Recent evidence suggests that there is currently a trend away from breastfeeding in developing countries, despite the large numbers of studies documenting its beneficial effects on child health.

The prevalence of breast feeding in Jimma Town was found to be 96.5 percent in a cross sectional study of 975 mothers. The mean duration of exclusive breastfeeding was 4.4 months and the mean duration of over all breastfeeding was 15 months. Forty three percent of mothers gave food supplements for their children by the age of 4 - 6 months. Additionally, it was found that 60 percent of the mothers breast fed for more than 18 months.

Seventy eight percent of mothers started breast feeding immediatly after birth and the majority breast fed on demand. Forty two percent of mothers gave milk and milk products as a supplement and 76.5 percent of them gave the milk with bottle.

Twenty five percent of mothers were of the opinion that mothers should exclusively breast feed children for 4 - 6 months. Seventy nine percent felt that mothers should optimally breast feed for 18 months or more. Only Thirty six percent of mothers considered breast feeding to be superior to bottle feeding for a child of 4 - 6 months.

A search for social and cultural determinants for the occurrances of extended breast feeding was conducted and it was found out that family income, educational lavel of both the mother and her husband to have a negative correlation with the length of breast feeding.

Religion, ethnicity, occupation and marital status are found to have no association with duration of breastfeeding.

It is shown in this study that "socio-economic" characteristics of a family have great association with duration of breastfeeding. It is recommended that nutritional education supported by practical demonstration to encourage mothers from such back grounds to breast feed longer.

CHAPTER I

1. INTRODUCTION

Breastfeeding is one of the oldest child rearing practices known to mankind. It is a unique and important event in the lives of both the child and the mother.

Studies show that the advantages of breastfeeding are protective,nutritive, and psycho-social (1). Unfortunately, the early introduction of other foods particularly bottle-feeding, as a supplement to or replacement of breastfeeding is on the increase in many developing countries. This is particularly the case among the urban mothers where they consider bottle feeding a "fact of modern life" (1, 2, 5).

Introduction of breast milk substitutes in developing countries is often associated with a whole series of problems; poor environmental and water sanitation, as well as inadequate facilities for the proper cleaning of bottles and teats. This is combined with an economic situation in which the cost of infant formulas is often prohibitive and their over dilution frequent (4, 6).

Many factors are known to influence the growth of children, including weaning practices, disease, poverty, ignorance and large family size. In developing countries, where all the above factors are rampant and in its severest form, breastfeeding is the major nutrient source from which children benefit. Human milk is totally sufficient for proper growth in the initial 6 months of life and can remain an important element of the diet for several additional months.

While governments in developing countries strive for urbanization, socio-economic development and maternal education, these factors are usually accompanied with a decrease in duration of breastfeeding.

Jimma is a business center in the region and is witnessing socio-cultural change with its positive and negative impact on the important traditional practices of its citizens.

The objectives of this study were first to describe the breast feeding profile of mothers in Jimma Town, second to assess the prevalence and duration of breastfeeding in relation to different socio-cultural characteristics and finally to analyse maternal opinions regarding breastfeeding. Based on the results of this study strategies will be developed that encourage mothers to breastfeed rather than bottle-feed and breastfeed longer. Thus the identification of potentially modifiable factors associated with breastfeeding will be most important.

CHAPTER II
LITERATURE REVIEW

2.1 Report of the WHO collaborative study on breast-feeding(1981) (1)

This study took place in nine countries encompasing a broad spectrum of geographical, ecological and cultural characteristics. It also includes three population types.[1)] economically under privileged urban residents.[2)] economically privileged urban residents, and[3)] rural residents. In total it included 23,000 mother and child pairs.

This study found the prevalence of breast feeding in economically advantaged groups at six months post partum was never higher than 50%. In the rural populations 85% of mothers were still breastfeeding at six months post-partum.

In this study no association was found between the occurrence of breastfeeding and the age or parity of the mother. In Sweden, maternal education was positively correlated with breastfeeding duration and prevalence, in other less developed countries the correlation tended to be in the negative direction.

The most frequent reason given for cessation of breastfeeding, irrespective of child's age, was insufficient milk. Most mothers believe that breastfeeding should continue through the first six months and the majority of mothers felt breastfeeding was superior to bottlefeeding.

2.2 KARL ERIC KNUTSSON AND TORE MELLBIN (5)

They did their study in three different Ethiopian Communities representing different economic and cultural situations in 1969 G.C.

The highest prevalence of long duration (19 months or more) breastfeeding was found in Tigrie, at 64%. No infant with a breastfeeding duration shorter than seven months was registered in this community.

In Sidamo, the duration of breastfeeding was somewhat shorter, with 32% of the children breast fed for nineteen months or more and 38% for 7 - 12 months. Only two infants were breast fed for less than seven months, and in both cases for health reason.

In Arssi the duration of breastfeeding was less than 3 months for 15% of the children, 27% were given breast for 4 - 6 months and 47% for 7 - 12 months, with only 11% for longer than one year.

The fact that the authors tried to study three different communities with different socio-cultural conditions makes the study very interesting but the adequacy of the sample size (303) is doubtful.

2.3 V.SERVA, H.KANARIMOAWD. G.J. EBRAHIM (20)

They did their research in Kuala Lumpur
(n=293) Recief (n=105)

In their study they found that 10% of mothers never breastfed. The median duration of breastfeeding in Kuala Lumpur was eighteen months. A large proportion (62%) gave supplementary feeding at a median duration of 3.5 months.

2.4 F.C. BARAOS G.C. VICTORA AND J.P. VAUGAHAN (15)

They studied pattern of breast-feeding in Pelatos (Southern Brazil) in a cohort of 5914 infants from birth. Over all 92% commenced breast feeding and 54% were still breast feeding by three months of age. This proportion dropped to 30% by six months of age, 20% by nine months and 16% by the age of twelve months.

In their study they found that poor families were less likely to breast feed at birth than rich families (89% to 97% respectively) and showed lower prevalence of breast-feeding at three and six months. But by the age of twelve months poor children showed the highest prevalence.

2.5 CLIFORD B. DAVID, PATRICA H.DAVID AND MOHAMMED EL LOZY. (13)

In 1977 they studied five hundred ten consecutive mothers with their children less than three years of age attending a maternal and child health center in Yemen.

They found no association between prevalence of breast-feeding at six-months and family income. Slight trend towards early weaning was evident in the parents educational level particularly if the mother had some education and lower tendency towards weaning in younger mothers.

In children less than six months of age breast feeding and in children over six months, early introduction of solid food, were found the best predictors of good nutrition.

2.6 T.C. OKEAHIALM [9]

He studied four hundred nineteen mothers in an urban and five hundred forty three in rural areas attending antenatal and under five clinics in Nigeria.

In his study he found that in the urban areas mothers introduce supplements between 1-2 months to ensure babies adapt to bottle-feeding before mothers resume their work, while in the rural areas they introduced between 3-6 months of age. In the rural areas 92% breast fed at birth and by the third month 23% started supplementary feeds. Result for the urban groups was 78% at birth, 62% introduce bottle feeding six week post-parum. At three months only 68% breast fed and at six months it declined to 38%. Breast feeding on demand was very common in the rural groups while convenience to the mother was the trend in the urban groups.

2.7 WINCOFF AND HER COLLEAGUES.

Revised literature on breast feeding and arrived at a conclusion that the effect of urbanization, maternal education and socio-economic status or income act through the intervening variables of health services, employment status of women, socio-cultural factors and availability of breast milk substitutes, and these inturn affect prevalence and duration of breast feeding.

2.8 OWIE

Studied one hundred five vounteers in a prenatal clinic in Nigeria. He found that 71% of women with 1-2 years of schooling preferred breast feeding.

The proportion of women breast feeding steadily decreased to a low of 36% for those with 10-11 years of schooling. The main reason given for bottle feeding was that breast-feeding was considered to be primitive.

2.9 YVES BERGEVIN (7)

Reviewed the literature studied mostly in developed countries and identified twenty eight factors to be potentially associated with breast-feeding (either in onset or duration or both) and the factors are revised as follows.

Socio demographic characteristics

- Maternal age
- Mother ethnic background
- Living with partner
- Occupation of head of household

Pregnancy

- Parity
- Attendance of prenatal classes
- Smoking during pregnancy

Delivery and Hospital stay

- Type of delivery
- Birth weight
- Time of first breast contact
- Rooming - In
- In-Hospital supplementary feeding
- Receipt of infant formula

Post-Patrum at home

- Return to work post-partum
- Number of over night separations
- Illness in mother
- Illness in infant

Other breastfeeding experiences

- Mother was breast fed
- Breastfeeding of previous infant
- Friends or relatives who breastfeed
- Contact with breastfeeding groups.

The same author in his thesis for his masters degree studied a cohort of six hundred ninety six mothers.

He found that the following potentially modifiable factors to have effect on infant feeding practice. These are lack of contact with breastfeeding groups, delayed first breast contact, non-attendance of prenatal classes, operative deliveries, receipt of infant formula samples, in-hospital supplementary feedings and unavailability of rooming - in.

We can see that most of the factors in developed countries were not important in our conditions.

2.10 SUMMARY OF THE LITERATURE REVIEW

Factors found to be associated with breastfeeding at birth include the type of delivery, birth weight and parity. Characteristics frequently associated with longer duration of breastfeeding include having breastfed previously , rural residency, low income and low level of education in developing countries. Shorter duration of breastfeeding &. exclusive breastfeeding has been associated with

high socio-economic status, maternal education, urban residency and maternal employment.

Reasons for cessation of breastfeeding include milk insufficiency, pregnancy, maternal or child sickness and the infant rejecting breastfeeding.

CHAPTER III
METHODS

3.1 Study Design:- Cross-sectional, analytical survey of mother with a child less than 5 year of age in Jimma Town.

3.2 Study Location:- The study took place in Jimma Town, regional city of Keffa.

Jimma is located 335 kms. South West of Addis Ababa at 1820 mtrs. above sea level. Most of the people living in this town are petty traders, government employees and students.

Jimma is divided into twenty kebeles (the smallest socio-political unit in the country). According to the 1984 G.C. Population and Housing Census of Ethiopia the population of Jimma Town was 60,935 of which 29,097 were males and 31,895 were females (27).

3.3 Source Population:- Mothers with children five years and less were considered to generate data.

3.4 Study Time:- The study was conducted for 30 consecutive days from mid September to mid October 1987.

3.5 Sampling Method and Sample Size:- The sampling frame composed of households with children aged five years and less was readily available in the Regional Planning Office for Western Ethiopia.

A simple random sampling proportional to to the size of households in the kebele was applied to pick study house holds. In each house hold mother and child pair was considered. 13 house holds whose occupants changed kebele and could't be traced after repeated trial, were replaced randomly.

3.6 Measurement

We used a standing scale for weight and sliding wooden board for length. We followed standard methods of weight and height measurement (WHO)

3.7. Questionnaire

A detailed questionnaire with questions and expected answers was prepared by the principal investigator and pretested prior to interview. Based on the pretest minor modifications on the sequence of the questions and wording were made.

The questionnaire (appendix 2) included information on maternal characteristics, education, employment, parity, and attitude towards breastfeeding.

Also included were husband's education and employment status. For the index child age, sex, birth weight and height, (obtained by history) and his/her present weight and height were obtained by measuring at the time of the interview.

3.8 Interviewers

Fiftien interviewers were hired for the household survey. Each had a grade 12 education. All had previous experience in administering survey questionnaires.

3.9 Training

The principal investigator and two statisticians participated in the training of the interviewers. They were given four days training in interviewing techniques. They were also trained in standard methods of weight and height measurement . We made them practice in the field under supervision to ascertain that all of them were competent in filling out the questionnaires and in weightand height measurement. Interviewers submited all completed questionnaires at the end of each day. Each completed questionnaire was checked for accuracy and completeness and whenever inconsistencies or errors were found, the supervisors checked it immediately the following day.

3.10 Data Analysis

Data analysis took place at Ras Emiru Training Center using microstat for descriptive statistics.

A. Prevalence of breastfeeding (mothers who-ever breastfed)

Overall prevalence and prevalence at different ages after birth were calculated for mothers who were breast feeding during the interview and recall information was used for mothers who stopped breastfeeding. Mean duration is calculated using information from all the mothers interviewed.

B. Duration of breastfeeding in different socio-cultural characters of mothers.

To compute duration of breast feeding in different socio-cultural characters 209 (21 percent of the sample) who were breastfeeding during the interviews were excluded because of the difficulty in predicting the duration they may continue to breastfeed.

C. Nutritional status of the index child inrelation to duration of breastfeeding.

Because of high unreliability in stating age, relatively objective measures of weight for height were taken for the nutritional assessment of the children. Based on their weight and height, they were grouped into four sub-groups; normal, mild PEM, Moderate PEM, and severe PEM according WHO classification (28). The weight for height findings were analyzed with duration of breastfeeding.

D. Mothers Opinion on breastfeeding

Means and frequency distributions were calculated for all the mothers who responed to the respective informations.

3.11 Explanation of terms

. Exclusive breastfeeding- applies to infants recieving only breast-milk.

. Breastfeeding - total duration in which the child is breastfed with or without supplement.

. Index-child - the youngest child and less than five years of age.

. Significant - In this paper it implies statistical significance at a p-value of 0.05 or less.

CHAPTER IV
RESULTS

Of the 5089 eligible mothers with children aged five year and less, 975 (19.5%) were randomly selected for the household survey.

4.1 General informations on the study population.

4.1.1 Age distribution of mothers

The mean age of the mothers who participated in the study was 30 years. The majority of mothers (43.8%) were below 30 years of age. Twenty four percent were in the age group 36 - 40) and 22.3percent in the age group 30 - 35 years. (appendix 4)

4.1.2 Age distribution of the children

The mean age of the children in the study was 27 months. The majority 53.3 percent of the children were below 25 months of age. Fifteen percent of them were in the age group 36 - 40 months. Following in frequency were age groups 20 - 25 with 14% and age group 46 - 50 with 13.4% of the children. (appendix 5)

4.1.3 Place of delivery and personnel attending the delivery.

Out of the total mothers studied 56.1 percent gave birth at home and 42 percent at a hospital. Of the total deliveries, 44 percent were attended by trained health personnel. These include home deliveries attended by health personnel. 24.7% were attended by trained traditional birth attendants while the rest, 20.7 percent were attended by untrained traditional birth attendants.

4.1.4 Mothers distribution according to their ethnicity

Of the 975 mothers interviewed, 29.4% were Amaras, 26.0% were Oromos, 13.5% were Kullos, 12.2% were Guarges, 10.2% were Kaffas and 4.8% were Janjeros. Arabs and other minority groups madeup the remaining 4.9 percent of the sample.

4.1.5 Mothers distribution according to their religion

Of the 975 mothers studied 73.2% were Orthodox christians and 26.4% Muslims. Only 4 mothers were found to be outside these two religious groups.

4.1.6 Mothers distribution according to their marital status.

In this study of the 975 mothers 79.5% were married, 7% were single, who gave birth without officially being married. Percentages of the divorsed, the separated and the widowed were 3.9, 6.1 and 13.5 respectively. Totally 30.5% of studied mothers do not live with their partners.

4.1.7 Mothers distribution according to their occupational status

Of the 939 mothers who responded to the question on employment the majority (73.3%) were unemployed, 12.7% were government employees and 7.8% were self employed.

4.1.8 Mothers distribution according to their parity

Forty five percent of the 975 mothers studied had 1 - 3 children, 43.6% had 4 - 6 children, 9% had 7 - 9 children and 1.8% had more than 10 children.

4.1.9 Mothers distribution according to their family income

Of the mother who responded to this question 30% were getting family income of 50.00 Birr or less, i.e less than government's minimal wage level in Ethiopia. 25% got 100 - 199 Birr. It is only 23.6% of the families that get 200 Birr and above. 56% of mothers get less than 100 Birr per month. Five mothers did not know their family income.

4.1.10 Mothers distribution according to their educational level

Of the 975 mothers only 10.9 percent were illitrate, 11.5% could read and write, 51.5% attended elementary school. 26.9% attended secondary school, only 2 mothers had a college diploma.

4.1.11 Mothers distribution according to their husbands litracy

In our study 88 mothers didn't know the education level of their husbands. Of the 887 mothers 92% had literate husbands while the rest (8%) had illiterate husbands.

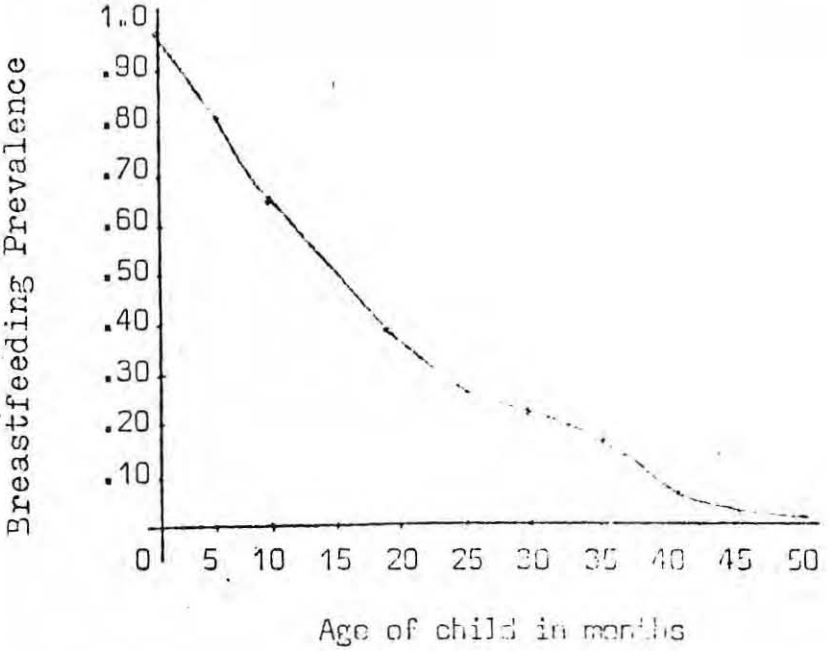
4.2 Prevalence and Duration of Breastfeeding according to Children's age

4.2.1 Over all prevalence

In this study 3.5 percent of mothers never breastfed their index child. In Jimma Town the overall prevalence (mothers ever breastfeed their index-child) was 96.5 percent. Mean duration of breast feeding was 15 months.

4.2.2 Prevelance of breastfeeding in different ages of the children.

Fig I - Prevalence of breastfeeding by age of child in Jimma Town 1987.



As seen on Fig I - prevalence of breast feeding at 5 months was 0.80, at 10 months 0.62 and it droped down to 0.40 at 18 months.

4.3 Duration of breastfeeding according to socio-cultural characteristics of the mother.

Table 1 Number and Percentage of Mothers by Ethnicity and Duration of Breast Feeding in Jimma Town 1987

Ethnic Groups	Mean Duration in Months	Duration of Breast Feeding in Months							
		≤ 6	7 - 12	13 - 18	19 - 24	25 - 30	31 - 36	≥ 37	Total
Amara	14.0	(63) 38.4	(34) 20.7	(10) 6.1	(18) 10.9	(12) 7.3	(17) 10.3	(10) 6.1	(164) 100.0
Oromo	16.2	(43) 27.9	(32) 20.7	(11) 7.1	(29) 18.8	(6) 3.9	(25) 16.2	(8) 5.2	(154) 100.0
Kullo	16.0	(18) 21.4	(15) 17.8	(11) 13.1	(17) 20.2	(2) 2.3	(14) 16.6	(7) 8.3	(84) 100.0
Gurage	14.4	(22) 32.8	(14) 20.8	(4) 5.9	(15) 22.4	(4) 5.9	(7) 10.4	(1) 1.5	(67) 100.0
Keffa	17.3	(16) 26.6	(12) 20.0	(3) 5.0	(11) 18.3	(2) 3.3	(14) 23.3	(2) 3.3	(60) 100.0
Others		(19) 33.3	(11) 19.3	(9) 15.8	(8) 14.0	(1) 1.8	(8) 14.0	(1) 1.8	(57) 100.0
Total	15.5	(181) 30.8	(118) 20.1	(48) 8.1	(98) 16.7	(27) 4.6	(85) 14.5	(29) 4.9	(586) 100.0

4.3.1 Duration of breastfeeding according to mother's ethnicity

Mean duration of breastfeeding is higher in Kullos (18 months) and lower for Amaras (14 months). Keffas, and Oromos, have a mean breastfeeding duration of 17 and 16 months respectively.

As shown on table I 36.4 percent of Amara mothers, and 32.8 percent of Gurage mothers stopped breastfeeding before 6 months post-partum. These values for Oromos, Keffas and Kullos were 27.9, 26.6 and 24.4 respectively.

The percentage of mothers breastfeeding 18 months after delivery were 47.3 percent for Kullos, 34.4 percent for Amaras, 48.2 percent for Keffas and 40.2 percent for Gurages.

Mean duration of breastfeeding is high among Kullos and Keffas (18 and 17 months respectively) and low among Amaras (14 months). Ethinicity of the mother shows slight association with duration of breastfeeding.
(X-square = 38.05 D F =30 P= .148)

Table II Number and Percentage of Mothers by Religion and Duration of Breast Feeding in Jimma Town 1987.

Religion	Mean Duration in Months	Duration of Breast Feeding in Months							
		≤ 6	7 - 12	13 - 18	19 - 24	25 - 30	31 - 36	≥ 37	Total
Orthodox Christians	15.4	(139) 31.5	(89) 20.1	(38) 8.6	(69) 15.6	(22) 5.0	(62) 14.0	(23) 5.2	(442) 100.0
Muslims	15.9	(42) 29.6	(28) 19.7	(10) 7.1	(28) 19.7	(6) 4.2	(23) 16.2	(5) 3.5	(142) 100.0
Others	-	(0) 0.0	(1) 50.0	(0) 0.0	(1) 50.0	(0) 0.0	(0) 0.0	(0) 0.0	(2) 100.0
Total	15.5	(181) 30.5	(118) 20.1	(48) 8.1	(98) 16.7	(28) 4.7	(85) 14.5	(28) 5.1	(586) 100.0

4.3.2 Duration of breast feeding according to mothers religious group

Mean duration of breast feeding in both major religions was similar (15 months).

31.5 percent of Orthodox Christian mothers and 29.6 percent of the Muslim mothers stopped breast feeding before six months post partum. Percentage of mothers who breast-feed for more than 18 months post partum were 39.8 for the Orthodox christians and 43.6 for the Muslim mothers.

There is no significant diffrence in duration of breast-feeding between Muslims and Orthodox Christians (Chi-square = 6.13 D.F. =1 Prob. = .90)

Table III - Number and Percentage of Mothers by Marrital Status and Duration of Breast Feeding in Jimma Town 1987.

Marrital Status	Mean Duration in Months	Duration of Breastfeeding in Months in Jimma Town							
		≤ 6	7 - 12	13 - 18	19 - 24	25 - 30	31 - 36	≥ 37	Total
Married	14.8	(145) 32.1	(91) 20.1	(39) 8.6	(82) 18.2	(25) 5.5	(51) 11.3	(19) 4.2	(452) 100.0
Single	12.9	(19) 46.3	(7) 17.1	(5) 4.9	(2) 12.2	(0) 0.0	(6) 14.6	(2) 4.9	(41) 100.0
Divorced	18.5	(8) 26.6	(5) 16.7	(2) 6.7	(3) 10.0	(2) 6.7	(7) 23.3	(3) 10.0	(30) 100.0
Separated	19.2	(4) 11.8	(10) 29.4	(4) 11.7	(4) 11.8	(1) 2.9	(10) 29.4	(1) 2.9	(34) 100.0
Widowed	21.4	(5) 17.2	(5) 17.2	(1) 3.5	(5) 17.2	(0) 0.0	(11) 38	(2) 6.9	(29) 100.0
Total	15.5	(181) 30.5	(118) 20.1	(48) 8.1	(99) 16.7	(28) 4.7	(85) 14.5	(27) 5.1	(526) 100.0

4.3.3 Duration of breastfeeding according to mother's marital status.

Mean duration of breastfeeding is relatively high among the widowed (21.4 months) and low (12.9 months) among the singles. Mean duration of breastfeeding in the separated, the married and the divorced was 19.2, 14.8 and 18.5 months respectively.

Sixty one percent of the married mothers stopped breast-feeding before 18 months post-partum and 32.1 percent stopped even before six months post-partum.

Percentages of mothers who breast-feed for more than 18 months accounted for 39.2 percent of the married, 31.7 percent of the singles, 50.0 percent of the divorced, 47.2 percent of the separated and 62.1 percent of the widowed.

Duration of breastfeeding has no significant difference in different status of marriage in mothers (Chi-square = 46.60 D.F = 24 Prob. 37:)

Table IV - Number and Percent of Mothers by Occupational Status and Duration of Breast Feeding in Jimma Town 1987.

Occupational status	Mean duration in months	Duration of Breast Feeding in Months							
		≤ 6	7 - 12	13 - 18	19 - 24	25 - 30	31 - 36	≥ 37	Total
Unemployed	15.9	(118) 28.4	(79) 19.0	(45) 10.8	(71) 17.0	(23) 5.5	(63) 15.1	(17) 42.0	(416) 100.0
Government employee	13.4	(31) 36.2	(23) 26.7	(1) 1.2	(15) 17.4	(4) 4.6	(10) 11.6	(2) 2.3	(86) 100.0
Self employee	16.2	(6) 30.0	(3) 15.0	(3) 15.0	(3) 15.0	(0) 0.0	(4) 20.0	(1) 5.0	(20) 100.0
Private employee	18.2	(10) 20.0	(12) 24	(3) 6.0	(8) 16.0	(3) 6.0	(9) 18.0	(5) 10.0	(50) 100.0
Others	10.0	(10) 72.0	(0) 0.0	(0) 0.0	(2) 14.0	(0) 0.0	(0) 0.0	(2) 14.0	(14) 100.0
Total	15.5	(181) 30.5	(118) 20.1	(56) 8.1	(97) 16.7	(31) 4.7	(78) 14.5	(28) 5.1	(586) 100.0

4.3.4 Duration of breast feeding according mothers occupation.

Mean duration of breast-feeding among the unemployed was 15.9 months and 13.4 months for government employees. Mean durations for self employed and private enterprise workers was 16.2 and 18.2 respectively.

Majority (63.0 percent) of the government employees stopped breast-feeding before 12 months post-partum. Percentage of mothers who stopped breast feeding before 12 months was 45.0 percent of the self employed, 47.1 percent of the unemployed. 4.2 percent of the unemployed mothers breast fed for more than 36 months and this value was almost half (2.3 percent) for the government employees.

There was no significant diffrence in duration of breast-feeding in different occupation groups of the mothers (Chi-square 39.6 D.F 24 prob = 0.56)

Table V-Number and Percent of Mothers by their Parity and Duration they Breast Feed in Jimma Town 1987.

Number of Children	Mean duration in months	Duration of Breast Feeding in Months							
		≤ 6	7 - 12	13 - 18	19 - 24	25 - 30	31 - 36	≥ 37	Total
1 - 3	14.8	(89) 32.0	(63) 22.6	(26) 9.3	(35) 12.5	(13) 4.6	(39) 14.2	(13) 4.6	(278) 100.0
4 - 6	17.0	(68) 27.8	(37) 15.3	(19) 7.7	(50) 20.4	(15) 6.2	(39) 16	(16) 6.5	(244) 100.0
7 - 9 and above	13.0	(22) 35.0	(18) 24.5	(3) 5.2	(13) 21.0	(0) 0.0	(7) 17.3	(1) 1.8	(64) 100.0
Total	15.5	(179) 30.5	(118) 20.1	(48) 8.1	(98) 16.7	(28) 4.7	(85) 14.5	(30) 5.1	100.0

4.3.5 Duration of breastfeeding according to mothers' parity

As shown in table V mean duration of breastfeeding was higher (17 months) for mothers with 4 - 6 children and low (13.3 months) for mothers with 7 - 9 children.

Forty nine percent of mothers with children 4 - 6 were found to have breast fed after 18 months post partum where as 36 percent of mothers in groups with parity less than four and 40.0 percent in mother with 7 - 9 children.

Duration of breastfeeding was significantly higher in mothers who have 4 - 6 children than those who have less or more (Chi - square =21.5 D.F =12 p=.043)

Table VI - Number and Percentage of Mother by Family income and Duration of Breastfeeding in Jimma Town 1987.

Family income in Birr	Mean Duration in Months	Duration of Breast Feeding in Months							
		≤ 6	7 - 12	13 - 18	19 - 24	25 - 30	31 - 36	≤ 37	Total
≤ 50	17.5	(40) 24.3	(30) 18.2	(15) 9.1	(25) 15.2	(5) 3.1	(35) 21.2	(12) 17.3	(165) 100.0
50 - 99	17.3	(40) 28.0	(17) 11.9	(17) 11.9	(27) 18.9	(9) 6.3	(27) 18.9	(6) 4.1	(143) 100.0
100 - 199	14.5	(43) 35.5	(23) 19.0	(7) 5.8	(22) 18.2	(7) 5.8	(15) 12.4	(4) 3.3	(121) 100.0
≤ 200	12.3	(56) 36.6	(44) 28.8	(9) 5.9	(23) 15.0	(7) 4.6	(8) 5.2	(6) 3.9	(153) 100.0
Total	15.5	(179) 30.5	(117) 20.1	(48) 8.1	(97) 16.7	(28) 4.7	(85) 14.5	(28) 15.1	(586) 100.0

4.3.6 Duration of breastfeeding by mother's family income

As shown on table VI mean duration of breastfeeding progressively decreases with increase in monthly income of the family. Mean duration of breast feeding for mothers with family income less than 50.00 Birr was 17.5 months and almost the same (17.3) for mothers whose monthly income was 50 - 99 Birr. If 100 Birr per month is taken as a cut offpoint the average duration of breastfeeding was significantly higher in mothers who get less than 100 Birr than in those mothers who get more than 100 Birr per month. The mean duration of breastfeeding for mother with family income of 100 - 199 Birr per month and for those who get more than 200 Birr is 14.5 and 12.3 respectively.

The percentage of mothers who breastfed for less than six months progressively increases with increasing income (24.3 percent for those who get 50 Birr and less and 36.6 percent for mothers with 200 Birr or more). This fact was well reflected by the percentage decrease in mothers who breastfed for more than 18 months. (48.4 percent for the income groups 100 and less 39.7 percent for income group 100 - 199 and only 28.7 percent for mothers whose family income was more than 200 Birr per month).

There is significant association between duration of breastfeeding and income level of the family as shown by negative correlation, as the family income increases duration of breast feeding declines (Chi - square = 102.3 D.F = 18, PROB = 7.16×10^{-3})

Table VII Number and Percentage of Mothers by their Educational Level and Duration of Breast Feeding in Jimma Town 1987.

Education Level	Mean Duration in Month	Duration of Breast Feeding in Months							
		≤ 6	7 - 12	13 - 18	19 - 24	25 - 30	31 - 36	≥ 37	Total
Illetrate	17.8	(21) 21.2	(19) 19.2	(14) 14.3	(16) 16.6	(3) 3.3	(22) 22.0	(4) 4.0	(99) 100.0
Read and Write	21.5	(5) 10.0	(5) 10.0	(9) 18.0	(12) 24.0	(4) 8.0	(13) 26.0	(2) 4.0	(50) 100.0
Elem. 1 - 6	15.5	(88) 31.8	(51) 18.4	(15) 5.4	(48) 17.3	(18) 6.5	(36) 13	(21) 7.6	(277) 100.0
Jun. Sec. 7 - 8	15.5	(20) 37.7	(11) 20.8	(5) 9.4	(8) 15.1	(1) 1.9	(7) 13.2	(1) 1.9	(53) 100.0
Secondary and above	7.7	(47) 43.9	(30) 28.1	(6) 5.6	(13) 12.2	(1) 0.9	(9) 8.4	(1) 0.9	(107) 100.0
Total	15.0	(181) 30.5	(116) 20.1	(49) 8.1	(97) 16.7	(27) 4.7	(87) 14.5	(29) 5.1	(586) 100.0

4.3.7 Duration of breastfeeding according to mother's educational level.

As seen on table VII mean duration of breast feeding was very low (7.5 months) in those mothers who attended secondary school but very high (21.5 months) for mothers who can read and write. Comparison between literate and illiterate mothers revealed significantly higher mean duration of breast feeding in illitrate mothers.

Forty six percent of the illiterate mothers 62.0 percent of mothers who can read and write and 22.4 percent of mothers with secondary school education breastfed for more than 18 months. It is only 20% of mothers who read and write that stopped breast feeding before 12 months but 12% of the mothers with secondary school education stopped breastfeeding even before six months post partum.

Generally educational level has significant association with duration of breast feeding. As educational level of the mother increases, duration of breastfeeding decreases. (chi-sqare = 67 D.F = 24 Prob=.000)

Table VIII Number and Percentage of Mothers by their Husbands Educational Level and Duration of Breastfeeding in Jimma Town 1987.

Education Level	Mean Duration in Months	Duration of Breast Feeding in Months							
		≤ 6	7 - 12	13 - 18	19 - 24	25 - 30	31 - 36	≤ 37	Total
Illitrate	16.39	(8) 22.3	(10) 27.7	(4) 11.2	(4) 11.2	(2) 5.5	(6) 16.6	(2) 5.5	(36) 100.0
Read & Write	21.4	(1) 10.0	(0) 0.0	(0) 0.0	(3) 30.0	(2) 20.0	(2) 20.0	(2) 20.0	(10) 100.0
Elementary 1 - 6	15.3	(60) 28.7	(35) 16.7	(25) 11.9	(45) 21.5	(9) 4.4	(30) 14.4	(5) 2.4	(209) 100.0
Jun. Sec. 7 - 8	15.0	(29) 42.0	(11) 15.9	(2) 2.8	(11) 15.9	(5) 7.3	(4) 5.7	(7) 10.4	(69) 100.0
Secondary and above	14.0	(61) 31.6	(54) 27.8	(13) 6.7	(26) 13.5	(9) 4.7	(24) 12.4	(6) 3.1	(193) 100.0
Not stated		(16) 28.1	(7) 10.9	(4) 6.3	(9) 14.1	(1) 1.6	(19) 28.7	(6) 9.4	(64) 100.0
Total	15.5	(181) 30.5	(118) 20.1	(48) 8.1	(98) 16.7	(28) 4.7	(85) 14.5	(26) 5.1	(586) 100.0

4.3.8 Duration of breastfeeding in mothers according to husbands' educational level.

In this study the mean duration of breastfeeding decreases from 16.4 months in mothers with illitrate husbands to 14.0 months in mothers with secondary school graduate husbands.

As seen in table VIII there is no remarkable diffrence between mean duration of breastfeeding in mothers with illitrate and literate husbands. But generally, as educational level of the husband increases, mean duration of breastfeeding shows a declining tendency. This is clearly seen from the percentage of mothers who breastfed for more than 18 months. Forty two percent 39.3 percent and 33.7 percent for mothers with husbands educational attainment of elementary, junior secondary, and secondary school respectively.

Our study shows a negative association between duration of breastfeeding and husbands educational attainment.
(Chi-square = 7[illegible].1[illegible] D.F. [illegible]0 Prob .000))

4.4 Breastfeeding and nutritional status of children in Jimma Town.

4.4.1 Birth weight and height

Out of the total mothers interviewed only 22% recalled the birth weight of their index child. In these children the mean birth weight was found to be 3.5 kgs.

Only one mother recalled the birth height of her index child.

Because of low response and problems of recall in both birth weight and height comparison of these variables with duration of breastfeeding was excluded.

Table IX Number and Percentage of Children by Nutritional Status and Duration of Breast Feeding Jimma Town 1987.

Nutritional Status	Mean duration in months	Duration of Breast Feeding in Months							
		≤ 6	6 - 12	13 - 18	19 - 24	25 - 30	31 - 36	≤ 37	Total
		(216)	(138)	(55)	(111)	(38)	(76)	(28)	(662)
Normal	18.9	32.0	20.8	8.3	16.7	5.7	11.5	4.2	100.0
		(47)	(42)	(17)	(24)	(6)	(16)	(4)	(156)
Mild PEM	13.8	30.1	26.9	10.9	15.4	3.8	10.2	2.6	100.0
Moderate		(9)	(10)	(8)	(3)	(1)	(5)	(0)	(36)
PEM	14.0	25.0	27.7	22.2	8.3	2.7	13.8	0.0	100.0
Severe		(10)	(8)	(4)	(5)	(2)	(2)	(1)	(32)
PEM	13.5	31.2	25.0	12.5	15.6	6.3	6.3	3.1	100.0

4.4.3 Breastfeeding duration in different nutritional status of children

This study reveals mean duration of breastfeeding to be high for the nutritionally normal children compared to that of the under nourished with a difference of 5 months. (18 months for the normal and 13 months for the under nourished children).

As shown on table IX there was no marked difference in percentage of children breastfed for less 6 months in different nutritional status groups. Thirty eight percent of the normally nourished children, 32 percent of the mild PEM, 24.8 percent of the moderate PEM and 31 percent of the severely malnourished children were breast fed for more than 18 months.

In this study although no statistically significant association was found, low duration of breastfeeding was noted in malnourished children.

4.5 Maternal Opinion:- On breast feeding in Jimma Town.

4.5.1 Exclusive Breast Feeding

Table X number and percentage of mothers by duration of exclusive breast feeding in Jimma Town, 1987.

Duration of Exclusive Breastfeeding (in months)	Frequency	Percent	Cumulative Frequency
≤ 3	415	45.6	46
4 - 6	392	43.1	89
7 - 9	43	4.7	94
≥ 10	60	6.6	100
Total	910	100.0	

Sixty five mothers who were exclusively breastfeeding at the time of the interview were excluded.

Mean duration of exclusive breastfeeding or average age of the child at which time mothers started supplementary food for Jimma Town was 4.4 months. The majority of mothers (46%) exclusively breastfed for less than 3 months and 43% for 4 - 6 months. It was found that 6% of mothers exclusively breastfed for more than 10 months.

4.5.2 Time on Initiation of Breastfeeding

Seventy nine percent of the mothers in our study started breastfeeding immediately after birth (with in 12 hours after birth). Eighteen percent gave breast after 12 hours and the remaining 2.9 percent were unable to recall the time of initiation.

4.5.6 Reason for stopping breast feeding

Table XI - Number and percentage of mother by reason for stopping breast feeding in Jimma Town 1987.

Reason for Stopping Breastfeeding	Number	Percent
Child's refusal	327	62.2
Insufficient milk	71	13.5
Mother's sickness	59	11.2
Unfavorable work condition	29	5.5
Pregnancy	26	5.0
Child sickness	9	1.7
Old fashioned	4	0.8
Total	525	100.00

This question was not applicable to 209 mothers who were breast feeding at the time of interview and another 241 didnot respond to the question but no special characteristic was found in the non responders. Of those who responded to the question, 62.2 percent gave child's refusal as a reason. Thirteen percent of mothers stopped because of insufficient milk. Health reason in the mother, sickness in the child and pregnancy were given by 11.2 percent, 1.7 percent and 5 percent of the mothers respectively only 4 mothers (0.7 percent) claimed breast feeding to be an old fashioned and practised bottle feeding.

Sixty percent of mothers stopped breastfeeding gradually while the rest stopped at once.

20 percent of mothers painted their nipples with bitter local berbs (eret) to discourage their children from breast-feeding. The majority (79.6) percent stopped breastfeeding without using any specific method.

4.5.7 Methods of Breast Feeding

Table XII:- Number and percentage of mothers by method of breast feeding in Jimma Town 1987.

Method	Number	Percent	Cummulateve Frequency
On demand	570	61.7	61.7
On convenience (to mother)	251	27.2	88.9
On schedule	103	11.1	100.0
Total	924	100.0	

Of the mothers interviewed the majority (61.7 percent) breast feed on demand, 27.2 percent on convienience to mother and 13.8 percent on schedule see table XII. For those mothers who feed on schedule mean frequences of breast feeding during the day time and at night were 3 and 2 respectively.

4.5.8 Types of Food Supplementation

Table XII - Number and percentage of mothers by type of supplementary food given for children in Jimma Town. (1987)

Types of Supplement	Number	Percent	Cumulative Frequency
Milk and milk products	380	41.8	41.8
Milk and cereals	234	25.7	67.5
Milk,meat and eggs	90	10.0	77.5
Cereals	64	7.0	84.5
Milk, fruits and vegitables	62	6.8	91.8
Meat, eggs, fruits and vegitables	56	6.1	97.4
Others	24	2.6	100.0
Total	910	100.0	

65 mothers had not yet started any supplement. Of the 910 mothers who responded to this question 41.8 percent gave milk and milk products as a supplement, 25.7 percent gave milk and cereals, 10 percent claimed to have given eggs, meat and milk. Seven percent of mothers gave cereals only.

Of 875 mothers 64.5 percent gave the milk and/or fluid supplement with bottle and the rest used spoon and glasses. Eighty four percent of mothers gave their child milk, 32.7 percent gave cereals, 16.1 percent gave meat and eggs and 12.9 percent gave fruits and vegitables.

4.5.9 Opinion on duration of exclusive breastfeeding.

Table XIV:- Number and percent of mothers according to their opinion on duration of exclusive breastfeeding in Jimma Town 1980.

Duration of exclusive Breastfeeding in month	Number	Percent	Cumulative Frequency
≤ 3	60	6.2	6.2
4 - 6	245	25.4	31.6
7 - 9	596	61.8	93.4
≥10	64	6.6	100.0
Total	965	100.00	

965 mothers responded to this question sixty percent of these mothers suggested that exclusive breastfeeding should continue until 7 - 9 months post-partum. About one quarter (25.4%) of mothers suggested that a mother should exclusively breastfeed for 4 - 6 months. Some 6.6% of mothers were of the opinion that supplementation should not start until as late as 10 months or more . The mean suggested duration of exclusive breastfeeding was 5.8 months which was greater than the actual 4.4 months.

4.5.10 Mothers opinion about the optimal duration of breastfeeding

Most of the mothers (79%) were of the opinion that mothers should breastfeed for more than 18 months. Fifty six percent suggested that breastfeeding should continue until 24 months post partum and about 3 percent suggested 40 months or more.

Mean duration of breast feeding suggested by the mothers sampled was 25.6 months.

4.5.11 Mothers opinion on breast and bottle feeding of infants 3 - 6 months of age.

Thirty five percent were of the opinion that an infant of 3 - 6 months of age thrives best with mothers milk, 59.4 percent thought that bottle and breast feeding were equally good. 4.6 percent of mothers claimed that bottle feeding was superior.

Ninety percent of mothers had the chance to be breast fed as infants, one and one half percent were not breast-fed during their infancy the rest were unable to recall their experience.

CHAPTER V

DISCUSSION

The overall prevalence rate of breastfeeding in Jimma Town was found to be 96.5 percent. Similar results have been reported by other authors who have studied other urban areas in Ethiopia. For example 97 percent of the urban poor and 91 percent of the economically privileged urban mothers breastfed (1). These results are quite low compared to the 100 percent in rural areas reported from Tigrie Region (5).

Studies show that factors associated with the decision to breast feed and with early termination are only partialy understood. Most authors have found that education, both of the mother and her husband and family income are negatively associated with the duration of breastfeeding. (4, 7, 8). In this investigation. Premiparous women were found to breastfeed longer. There is no universal consensus on the effect of religion, parity, age on breast feeding. In our study we found no association between religion, ethicity employment, marital status and duration of breastfeeding.

Most earlier studies (1, 7, 26) have shown that the duration of breastfeeding is shorter in employed mothers. An important reason given was the working hours of mothers which prohibit continous breastfeeding. Contrary to these reports, in this study no association was noted between mothers employment and duration of breastfeeding. This may be due to fewer mothers studied (12 percent) who have regular government employment, which calls for strict time observance.

The mean duration of breastfeeding in mothers who can read and write was relatively high (21 months). This may be related to the on going literacy campaign in the country, where topics

related to health and healthy living are included in adult education classes. This quite agrees with the findings in Kenya and India, by Sandara and Zahufaman respectively who found that educational programmes and nutritional education linked to 9 primary health care programme increased the average duration of breastfeeding.

A strong association was noted between duration of breast feeding and monthly family income. Mean duration of breast feeding in mothers with a monthly income of less than 100 Birr was 17.5 and 14.5 months for those at 100 - 199 Birr/month. A further decrease was noted in mothers with a family income 200 Birr/month and above (12.3 months).

The mother's and husband's educational level and monthly income which are variables potentially associated with each other and all were negatively correlated with duration of breast feeding. This may be related to their knowledge and ability to get formula feeds.

Breast milk can provide almost all nutritional requirements for the growing infant up to the age of six months, even in the second year of life it can be an important nutritional supplement (1, 2) Bottle fed babies do not necessarily follow the optimal curve for infant growth. In the absence of breast feeding, the baby faces the danger of both under nutrition and over nutrition, it is quite obvious that more than one factor plays a role in nutritional status of the child.

In this study mean duration of breast feeding was longer in normal children than malnourished children 18 and 13 months respectively, but this diffrencewas not statistically significant. There was no association between duration of breast feeding and nutritional status of children in Jimma Town.

Sixty percent of mothers breast feed their children on demand. 41.8 percent of mothers used milk and milk products as a supplementary diet and most 76.5 percent gave the supplement with bottle. These findings quite agree with findings in other developing countries (1). Although most mothers state that breastfeeding should be of longer duration, in practice they cease to breastfeed at much earlier period.

In this study it was attempted to assess maternal opinion on both exclusive breastfeeding and breast feeding together with supplements. It was found that significant diffrences exist between opinion and practice. For example the mean duration of exclusive breast feeding and breast feeding in total based on mothers opinions were 5.0 and 25.6 months respectively. The finding is that the real practice was lower in both cases 4.4 months for exclusive breast feeding and 17.4 months for total breast feeding. Twenty five percent of mothers were of the opinion that mothers should supplement between ages 4-6 but 43 percent of mothers suplemented at 4 - 6. 79 percent were of the opinion that breast feeding should continue after 18 months but it was only 41 percent of mother who breast feed for more than 18 months. In other urban areas in Ethiopia 80 percent of mothers were of the view that exclusive breast feeding should be for 6 - 8 months and 76 percent suggested that optimal length of breast feeding to be 18 months or more (1).

In this study 4.6 percent of mothers preferred bottle feeding for children of 3 - 6 months Comparing this result to a study in a rural area of Ethiopia, 16 percent were found to prefer bottle feeding (1). Although our result was comparatively low compared to this result the attention of concerned authorities is very important for its further decrease.

CHAPTER VI

CONCLUSION

In this cross sectional analytical survey, 975 mother and child-pairs were studied. The study tries to describe breastfeeding profile in an urban Ethiopian community.

A tendency of decline in breastfeeding with socio-economic development was observed. Diarrheal disease, malnutrition and respiratory tract infection are the top most common diseases in children in Jimma Town and all are in part preventable through breastfeeding during the first year of life. Therefore to reverse this condition the collaborative efforts of health service units and other concerned bodies is indispensable.

Some of the important factors that need attention are:-

- Decline in duration of breastfeeding with increase in educational level of both the mother and her husband.
- Decline in duration of breastfeeding with increase in mothers family income.
- Late period of initiation of breastfeeding by some mothers.
- High prevalence of bottlefeeding
- Negative maternal openion on duration of exclusive breastfeeding.
- Considerable percent of mothers terminating breast feeding before 10 months post partum.
- Late period of food supplementation by some mothers.

In this study the "socio-economic" characteristics of a family were strongly associated with the duration of breastfeeding. "Socio-economic" character incorpasses a variety of factors such as family income, maternal education, husband's education and occupation.

These factors are not mutually exclusive. It should be possible, by suitable nutritional education, coupled with practical demonstration, to encourage mothers from more advantaged back grounds to breast-feed longer.

The fact that many mothers have a view that breastfeeding should last more than 18 months and their positive opinion about breast-feeding wereencouraging. Actual practice may be modified by external influence, beliefs and pressures that are not readily compatible with breastfeeding. If this is so, it would be important to identify these factors develop strategies to reverse the situation. The government should also give a policy support by prolonging maternity leave and also creating a conducive condition in working places toencourage mothers breast feed after they resume their work.

The main purposes of this investigation was to conduct a base-line study of breastfeeding prevalence and identify modifiable factors for action. I urge other investigators to repeat similar studies in other parts of Ethiopia or developing countries and to also conduct experimental trials modifing characteristics identi-fied to improve the prevalence and duration of breastfeeding.

Appendix - I

Number of House Holds and Sample Size In Different Kebeles - Jimma Town.

KEFTEGNA AND KEBELE	TOTAL NUMBER OF HOUSEHOLDS With Child Less than 5 yrs. of age	SAMPLE NUMBER OF HOUSEHOLD
Kef. I	1576	302
Keb. 01	239	46
" 02	168	32
" 03	313	60
" 04	250	48
" 05	152	29
" 06	208	40
" 07	246	47
Kef. II	1610	310
Keb. 01	343	66
" 02	277	53
" 03	231	44
" 04	240	46
" 05	315	60
" 06	213	41
Kef. III	1894	363
Keb. 01	257	49
" 02	111	21
" 03	324	62
" 04	297	57
" 05	239	46
" 06	323	62
" 07	343	65
Jimma Town	5089 (N)	975 (n)

Appendix - 2

QUESTIONNAIRE

Number _____

1. Address

Kefetegna _____ Kebele _____ House No. _____

2. Name _____

3. Age _____

4. Religion:

4.1 Orthodox ___

4.2 Muslim ___

4.3 Others ___ Specify _____

5. Ethnicity:

5.1 Oromo ___

5.2 Amara ___

5.3 Kullo ___

5.4 Janjero ___

5.5 Keffa ___

5.6 Others ___ Specify _____

6. Marital status:

6.1 Married ___

6.2 Single ___

6.3 Divorged ___

6.4 Separated ___

6.5 Widowed ___

7. Husbands employment

7.1 Employed

7.2 Not employed

8. Occupation of your husband

8.1 Government employed ____

8.2 Private enterprise ____

8.3 Farmer ____

8.4 Self employed ____

8.5 Others ____ Specify _____

9. Husbands literacy status

9.1 Litrate ____

9.2 Illitrate ____

10. Husbands educational level

_____ grades completed.

11. Are you employed?

11.1 Yes ____

11.2 No ____

12. If yes type of occupation

12.1 Government employee ____

12.2 Private enterprise ____

12.3 Self employed ____

12.4 Others ____ Specify _____

13. Are you litrate?

13.1 Yes ____

13.2 No ____

14. If yes grades completed

_____ grades completed.

15. Monthly family income?

15.1 Less than 50 Birr

15.2 50 - 90 Birr

15.3 100 - 199 Birr

15.4 More than 200 Birr.

16. Your total live births.

_____ children.

17. Number of children alive.

_____ children.

LAST CHILD

18. Age of your last child? _____ months.

19. Sex of your last child?

19.1 Male ____

19.2 Female ____

20. Place of birth for your last child?

20.1 Hospital ____

20.2 Health Center ____

20.3 Home ____

20.4 Other ____ Specify _____

21. Who attended you last delivery?

21.1 Health Personnel ____

21.2 Trained TBA ____

21.3 Untrained TBA ____

21.4 Others ____ Specify _____

22. Did your child breast-feed initially (within 12 hours) after birth?

22.1 Yes ____

22.2 No ____

22.3 Idont recall ____

23. Is your last child on breast milk at present?

23.1 Yes ____

23.2 No ____

Questions 24 - 28 are to be filled only response to question 23 is negative.

24. Why did you stop breast feeding your child.

24.1 Milk insuficiency ____

24.2 Child's refusal ____

24.3 Mothers sickness ____

24.4 Child's sickness ____

24.5 Breast feeding is old fashioned ____

24.6 In conviniance in work condition ____

24.7 Others ____ Specify _____

25. How did you let your child stop breast-feeding

25.1 Gradually ____

25.2 At once ____

25.3 Others ____ Specify _____

26. Method you used to let your child stop breast-feeding

_____

27. How long did your child exclusively breast-feed?

_____ months

28. How long did your child breast-feed totaly?

_____ months

Never breast feed ____

29. If never breast-feed give your reason?

_____

30. How did you breast-feed your child?

30.1 On demand ____

30.2 On schedule ____

30.3 On convinience ____

30.4 Tenderness in breast ____

30.5 Others ____ Specify _____

31. If child is breast-feed on schedule.

31.1 How many times during day time _____

31.2 How many times at night _____

32. Did your start giving supplementary food to your child.

32.1 Yes ____

32.2 No ____

33. At what age did your child start supplementary feeding?

_____ months.

34. What type of supplementary food do you give to your child.

34.1 Milk and milk products ____

34.2 Cereals ____

34.3 Meat, eggs ____

34.4 Legumes ____

34.5 Vegitables and fruits ____

34.6 Others ____ Specify _____

35. If the answer to question 34 is fluid

What do you use to give the fluid with?

35.1 Bottle ____

35.2 Spoon ____

35.3 Glass ____

35.4 By hand ____

35.5 Others ____ Specify _____

36. If bottle fed

For how long did bottle feed?

36.1 _____ months

36.2 _____ years

36.3 Still on bottle

37. Birth weight and height of your last child:-

37.1 Birth weight _____ kgs.

37.2 Birth height _____ cm.

37.3 I don't recall ____

38. Present weight and height of the last child.

38.1 Present weight _____ kgs.

38.2 Present height _____ cms.

39. The child emediately older than the index child breast feed for?

39.1 Never breast fed.

39.2 _____ months.

39.3 _____ years.

40. In your opinion how long should a child exclusively breast feed?

_____ month

41. In your opinion how long should a child totally (with supplement) breast feed?

_____ months.

42. In your opinion a child 3 - 6 months thrives best on:

42.1 Breast milk only ____

42.2 Bottle feeding only ____

42.3 Both are equally good ____

42.4 I don't know ____

42.5 Others ____ _____

43. Did you your self breast-feed as a child?

43.1 Yes ____

43.2 No ____

43.3 I don't recall ____

44. Date _____

Name of interviewer _____

Sig. _____

Appendix 3.

በ[illegible]

ከአምስት ዓመት ዕድሜ በታች በሆኑ [illegible] ሕፃናት ላይ

[illegible]

1. አድራሻ:—

   ከፍተኛ ________ ቀበሌ ________ [illegible] ________

2. ሙሉ ስም ________________

3. ዕድሜ ________

4. ሀይማኖት:—

   ሀ/ ኦርቶዶክስ ☐

   ለ/ እስላም ☐

   ሐ/ ሌላ ይገለጽ ________

5. የብሔረሰብ ክፍል/ጐሣ/:—

   ሀ/ ኦሮሞ ☐ | መ/ [illegible] ☐

   ለ/ አማራ ☐ | ሠ/ ከ[illegible] ☐

   ሐ/ ኩሎ ☐ | ረ/ ሌላ ይገለጽ ________

6. የጋብቻ ሁኔታ:—

   ሀ/ ባለትዳር/አንድ ላይ ያሉ/ ☐

   ለ/ ያላገቡ ☐

   ሐ/ የተፋቱ ☐

   መ/ የተለያዩ ☐

   ሠ/ ባል የሞተባቸው ☐

7. ያገቡ /ባለትዳር [illegible]/ [illegible]?

   ሀ/ አዎን ☐ [illegible] ☐

3. አዎን ካሉ የባለቤትዎ የሥራ [illegible] ነው?

ሀ/ የመንግሥት ሠራተኛ ☐

ለ/ የግለሰብ ድርጅት ተቀጣሪ ☐

ሐ/ ገበሬ/አርሶ ☐

መ/ የግል ሥራ ☐

ሠ/ ሌላ ይገለጽ _____

9. ባለቤትዎ ማንበብና መጻፍ [illegible]

ሀ/ አዎን ☐ ለ/ የ[illegible] ☐

10. አዎን ካሉ ባለቤትዎ የሚረዱትን ክፍል [illegible] ቢገልጹ፡—

_____

11. እርስዎ ሠራተኛ ነዎት?

ሀ/ አዎን ☐ ለ/ የለሁ ☐

12. አዎን ካሉ የሥራውን ባይነት ቢገልጹ፡—

ሀ/ የመንግሥት ሠራተኛ ☐

ለ/ የግለሰብ ድርጅት ተቀጣሪ ☐

ሐ/ የግል ሥራ /ንግድ.../ ☐

መ/ ሌላ ይገለጽ _____

13. ማንበብና መጻፍ ይችላሉ?

ሀ/ አዎን ☐ ለ/ የለዎ ☐

14. አዎን ካሉ ያጠና ቀዬትን ክፍል [illegible] ቢገልጹ፡—

_____

15. የቤተሰብዎ የወር ገቢ [illegible]

ሀ/ ከ50 [illegible]

ለ/ ከ3[illegible]

ሐ/ ከ[illegible]

መ/ ከ[illegible]

16. እስከ አሁን በሕይወት [illegible] /በህይወት [illegible] ያሉትንና የሞቱትን ቁጥር/ ብዛት ______

17. አሁን በሕይወት የሚገኙ ልጆች ብዛት:- ______

<u>የመጨረሻው [illegible]</u>

18. የመጨረሻ ልጅዎ ዕድሜ:- ______

19. የመጨረሻ ልጅዎ ጾታ:- ሀ/ ወንድ ☐ ለ/ ሴት ☐

20. የመጨረሻ ልጅዎ የተወለደው የት ነበር?

ሀ/ ሆስፒታል ☐

ለ/ ጤና ጣቢያ ☐

ሐ/ ቤት ☐

መ/ ሌላ ይገለጽ:- ______

21. የመጨረሻውን ልጅ ያዋለደችሁ ማን ነበር?

ሀ/ የጤና ባለሙያ ☐

ለ/ የሠለጠነች የልምድ አዋላጅ ☐

ሐ/ ያልሠለጠነች የልምድ አዋላጅ ☐

መ/ ሌላ ይገለጽ :- ______

22. የመጨረሻው ልጅ እንደ ተወለደ ወዲያውኑ/በ12 ሰዓት ውስጥ/ ጡት ተሰጥቶት ነበር? ሀ/ አዎን ☐ ለ/ የለም ☐ ሐ/ አላስታውስም ☐

23. የመጨረሻው ልጅ አሁን ጡት ይጠባል?

ሀ/ አዎን ☐ ለ/ የለም ☐

<u>ከተራ ቁጥር 24-[illegible] ያሉት ጥያቄዎች ለ23ኛው ጥያቄ</u>
<u>መልስ የለም ከሆነ ብቻ ይጠየቃሉ::</u>

24. ሕፃኑ አሁን ጡት የማይጠባበት ምክንያት ምንድን ነው?

ሀ/ [illegible] ☐

ለ/ [illegible] ☐

ሐ/ [illegible] ☐

መ/ [illegible] ☐

ሠ/ [illegible] ☐

ረ/ [illegible] ☐

25. ለ24ኛው ጥያቄ መልስ" አ[illegible] ሆነ" ውስጥ ያስቀመጡት እንዴት ነው?

ሀ/ ቀስ በቀስ ☐

ለ/ አንዳንዴ ☐

ሐ/ ሌላ ከሆነ ይግለጹ ---

26. የመጠረጣውን ሰው ስም ያውቁታል ከሆነ ግለጽ ካልሆነ ለምን እንደማያውቁ ነው?

---

27. የመጠረጣው ሰው ስም ብቻ የሚታወቅ ከሆነ ያህል ጊዜ ነው?

---

28. የመጠረጣው ሰው ከትላንት ሳይ የጋራው ሰዎች ያህል ጊዜ ነው?

ሀ/ ---

ለ/ ጥራሹን አላውቅም ☐

29. ጥራሹን አለመጠየቅ ካለ ምክንያትን ይገልጹ:--

ከዚህ በታች ያሉት ጥያቄዎች ፣ ኔ ስት መጥፎ ስራ ሲያጋጥም ባያጋጥሞ የሚሉ ይሆናሉ ;

30. የመጠረጣው ሰው ስት የሚሰርቅ/ የሰሰርቅ/ እንዴት ነው?

ሀ/ በጥያቄ/ሲያስፈራ/ ☐

ለ/ በፕሮግራም ☐

ሐ/ እንደ ተመቸኝ ☐

መ/ ስተኝ ሲያገኝ ☐

ሠ/ ሌላ ከገለጹ:--- ---

31. ሕፃኑ ስት [illegible]

ሀ/ [illegible] ---

ለ/ [illegible] ---

32. የመጠረሻውን ልጅ ተንባረ [illegible] አ[illegible] ፈራሁታለሁ?

ሀ/ አዎን ☐ ለ/ የለም ☐

33. አዎን ካሉ ሕፃኑ ሌላ ምንም ቦታ ሄደ / መጣ ሲጀምር ዕድሜው ስንት ነበር? _____

34. ከጡት ሌላ በተጨማሪ ስለ ምን ያህል ታውቃለህ?

ሀ/ ወተትና የወተት ተዋጽኦ ☐

ለ/ ጥራጥሬ/ሶንዴ/ስንዴ ዱቄት.../ ☐

ሐ/ ሥጋ፣አጥንት ☐

መ/ ሾሮ፣ሽሮ/ብራ፣ቂ ☐

ሠ/ ካሮት ሰላጣ ☐

ረ/ ሌላ ይገለጽ _____

35. ለ34ኛው የያቀ መለሰ ረሲ ከሆነ ሲሰጡን የሚሰጡት እገዳት ነው?

ሀ/ በጡጦ ☐

ለ/ በማንኪያ ☐

ሐ/ በስኒ ☐

መ/ በመጋት ☐

ሠ/ ሌላ ይገለጽ:— _____

36. በጡጦ የጠቡ ከሆነ ሕፃኑ ለምን ያህል ጊዜ ጡጦ ጠቡ?

ሀ/ _____ወር

ለ/ _____ዓመት

ሐ/ አውንዮ ይጠፋል ☐

37. የመጨረሻዉ ልጅ ሲወለድ የነበረዉ:—

ሀ/ ከብደት/ስኪ.ግ/ _____

ለ/ ቁመት/በሴ/ሜ/ _____

ሐ/ አላስታውስም ☐

38. የመጨረሻው ልጅ [illegible]

ሀ/ [illegible]

ለ/ [illegible]

39. ከመጨረሻው ልጅ ሙሉ የ[illegible] ሰጭ ጡት ብቻ የጠባ ለምን ያህል ጊዜ ነበር?

ሀ/ ምንም አልጠቡም ☐

ለ/ _____ ወር

ሐ/ _____ ዓመት ☐ ፯

መ/ ጥያቄው አይመለከታቸውም ☐ /

40. በርስዎ ግምቲ ሊገዱ ሕፃን ቤት ብቻ/ ያለ ተጨማሪ ምግብ/ መጥባት የሚገባው ለምን ያህል ጊዜ ነው? _____

41. በርስዎ ግምት አግድ ሕፃን ጠቅሷ ጡት መጥባት የሚገባው /ከ ተጨማሪ ምግብ ጋር ሊሆን ይችላል/ ለምን ያህል ጊዜ ነው? ወይም አንድ ሕፃን በሰጉት ዕድሜው ጠቅሶ ጡት መጥባ ይገባዋል ብለው ይገምታሉ? _____

42. በርስዎ ግምቲ ዕድሜው ከ፮ወር አስከ ፩ዓመር የሆነው ሕፃን ይበልጥ የፋፋና ጤናማ የሚሆነው ምን ቢመገብ ነው?

ሀ/ የእናት ጡት ብቻ ☐

ለ/ ጡጠ ብቻ ☐

ሐ/ ሁለቱንም ☐

መ/ አላውቅም ☐

ሠ/ ሌላ ይገለጽ:— _____

43. በሕፃንነትዎ የናት ጡት ወተት ተመግበዋል?

ሀ/ አዎን ☐

ለ/ የለም ☐

ሐ/ አላስታውስም ☐

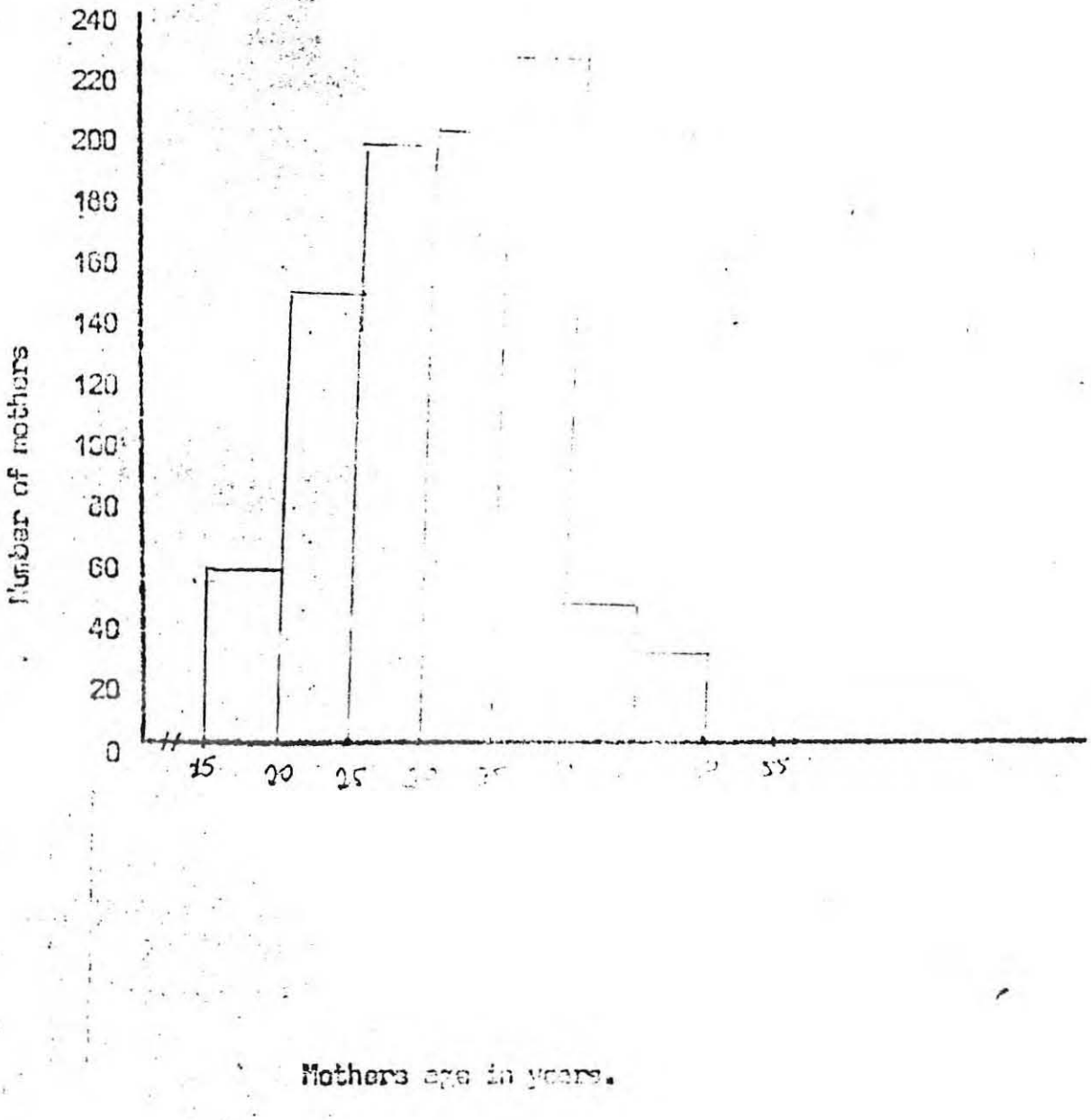
44. ቀን _____

የቀጣሪዉ ሥም _____

ፊርማ _____

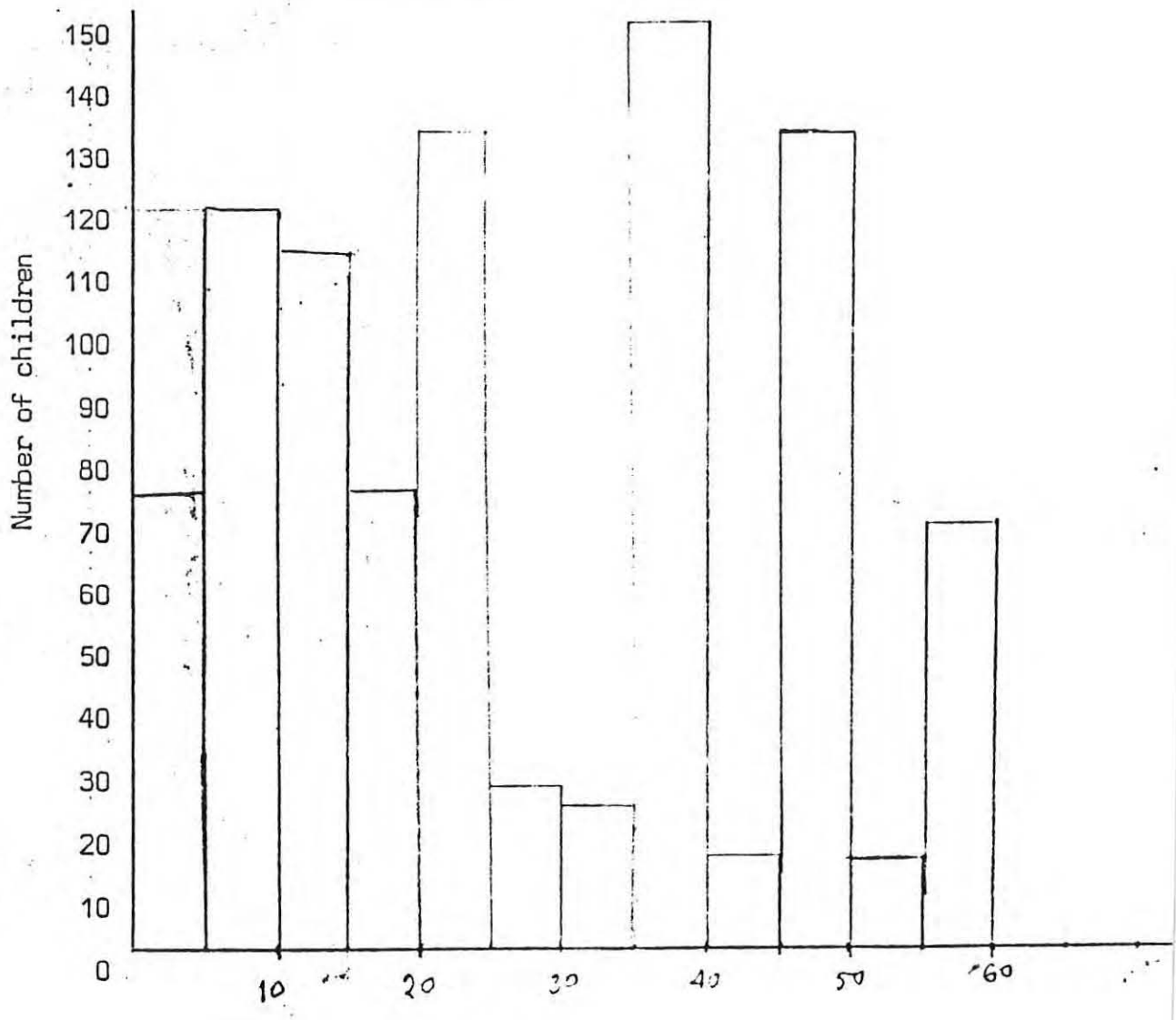
Appendix - 4

II.- Frequency distribution of mothers by their age in Jimma Town 1987.



Appendix - 5

III - Frequency distribution of children by their age in Jimma Town 1987.



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