

FACTORS AFFECTING EXCLUSIVE BREAST FEEDING AT GALKAIO
GENERAL HOSPITAL, GALKAIO DISTRICT, MUDUG REGION,
PUNTLAND_SOMALIA

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A RESEARCH TO THE FACULTY OF CLINICAL MEDECINE AND
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DECLARATION

I AHMED DAHIR OSMAN declare that this research is my own effort and has not been presented before for any academic qualification in any college or university, where the work of others was consulted respective references have been quoted. The contribution of my supervisor was as well quite vital.

Researchers' Name: SIGN Date

APPROVAL

This research has been prepared under my direct supervision and guidance and is now ready to be submitted to the faculty of Clinical Medicine and Dentistry of Kampala International University.

Signature:.....Date:.....

DEDICATION

I dedicate this piece of work to ALLAH SUBHANAHU WATAALLAH, my parents, brothers and sisters, relatives, friends and mentors who showed devotion in guiding me during the process of my studies and this research project specifically. I specifically dedicate this piece of work to my beloved mother.

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I would like to express my sincere gratitude to our family, friends whose support and encouragement has made this research project possible. Valuable contribution of my lecturers and colleagues must also be acknowledged with special thanks to my supervisor; finally my sincere gratitude goes to **Allah** for having granted me good health throughout this study.

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Abstract

Exclusive breastfeeding refers to the percentage of children less than six months old who are fed breast milk alone (no other liquids) in the past 24 hours (WHO, 2013), which provides the only perfect nutrients for babies, protect them against infections and it lays the foundation of their breathing psychological development (Berlin, 2005).

A cross sectional study was conducted at Galkaio General Hospital, Galkaio district, Mudug region, Puntland_somalia. To determine the practices of breastfeeding among the mothers attending Galkaio General Hospital, the social practices affecting breast feeding and to identify cultural hindering factors to exclusive Breast feeding among mothers at Galkaio general Hospital, Puntland_somalia.

This study showed that most of the mothers breastfed for 6 months (33%), followed by those who breastfeed 7-12 months (28%), which was higher than previous results and that 58% of the mothers said that their culture says that baby do not get enough milk when they practice exclusive breastfeeding, 35% said the baby do not get enough milk.

The study concluded that there is low practice of exclusive breastfeeding at Galkaio General Hospital, Galkaio District, Mudug region, Puntland_somalia. This was majorly influenced by the cultural believes and barriers in this study area.

The study recommended that the government of Puntland_somalia, especially Mudug region should institute maternal education programs to teach mothers about breastfeeding and early child hood development, the community leaders should initiate mother to mother peer program to overcome the rampant cultural barriers in the implementing of exclusive breastfeeding and another study should be conducted to determine drivers and the outcomes of the breastfeeding practices among women in Mudug region on their child's development

CHAPTER ONE

INTRODUCTIONS

1. 0 Introductions

In this chapter, the researcher has presented the baseline background information about the subject under study, the study statement problem, the justification about the study and the conceptual framework.

1.1 Background

Exclusive breastfeeding refers to the percentage of children less than six months old who are fed breast milk alone (no other liquids) in the past 24 hours(WHO, 2013)

There is no doubt breastfeeding is the best and safest way of feeding infants. It provides the only perfect nutrients for babies, protect them against infections and it lays the foundation of their breathing psychological development. The world has recognized the value of this important and natural way of feeding babies. There is still much to be done to protect the valuable function of breastfeeding, the most common method of feeding, the emphasis must be put on mobilizing and educating mothers on the importance of exclusive breastfeeding (Berlin CM, Briggs GG; 2005).

Breast feeding is the nursing of an infant on the mother's breast. Exclusive Breast feeding means that the baby has no other food or drink but breast milk not evens a dummy.Breastfeeding is the best possible nutrition for both physical and mental development supplying baby's nutritional requirements for the first 4-6 months of life as it is quickly and easily digested.

An Exclusively Breastfed baby does not need any other supplement from the first few days they are born until 4-6 months (Meek, J; 2002).

Breast milk contains some of the following: Proteins and fats in the right quantities, more lactose than other milks and that is what a human baby needs. Sufficient vitamins for the baby; There is a large amount of iron, but it is well absorbed from the baby's intestines and breastfeeding babies don't develop iron deficiencies which can lead to anemia, breast milk provides water for the infant hence preventing dehydration. Correct amounts of; calcium and phosphate and other minerals are present in breast milk. Breastfeeding also benefits the mother's health in the following ways:

Immediately after delivery of her child, suckling of the breast may reduce the risk of post-partum hemorrhage to the mother; suckling stimulates the release of oxytocin, which helps milk release and causes contraction of the uterus. The sooner the uterus contracts after delivery, the less likely the possibility of prolonged bleeding; It also lowers the risk of at least two types of cancers; first ovarian cancer and breast cancer; Breastfeeding helps to space births; Breastfeeding helps the mother and the baby develop a loving bond and it helps to stop bleeding after delivery and helps the mother to regain her normal shape.

On the other hand, some mothers prefer artificial feeding to breastfeeding (Moreland J, Coombs J.; 2000).

1.2 Problem statement.

Only 35% of infants world-wide are exclusively breastfed during the first four months of life and complementary feeding begins either too early or too late with foods which are often nutritionally inadequate and unsafe (WHO, 2013).

In a study by Chudasma RK et al in Rajkot the Prevalence of exclusive breastfeeding at 6 months of age of infants was found to be 62% (Chudasama, 2009).

As per MoH data, only 60 percent of children under two months of age are exclusively breastfed, which further drops to 51 percent at 2-3 months of age and 28 percent at 4-5 months of age (MoH-Puntland_somalia, 2010).

In Galkaio General Hospital, close to 80 mothers give birth every month and only about 70% breast feed their babies exclusively. Problems associated with lack of exclusive breastfeeding such as malnutrition, diarrhea, failure to thrive, lack of mother to child bonding are common (Moreland J, Coombs J; 2000).

Galkaio General Hospital upholds health Education emphasizing Exclusive Breastfeeding and mothers should provide co-operation and understanding. Since the program started with introduction of antenatal and postnatal clinics several years ago, less than 100% of the target has been achieved (MoH-Puntland_somalia). It's in this background that this study has been designed to determine the factors that are affecting exclusive breastfeeding in Galkaio Hospital, Galkaio district, Mudug region.

1.4 Objectives of the study

1.4.1 Broad objective

To assess the factors affecting exclusive breast feeding at among mothers attending ANC services at Galkaio general hospital.

1.4.2 Specific objectives

1. To determine the practices of breastfeeding among mothers attending ANC services at Galkaio general hospital.
2. To determine social practices affecting breast feeding among mothers attending ANC services at Galkaio general hospital.
3. To identify cultural hindering factors to exclusive Breast feeding among mothers attending ANC services at Galkaio general hospital.

1.5 Justification of the Study

The study report will be submitted to the faculty of clinical medicine and dentistry of Kampala International University as a requirement in partial fulfillment of the requirement for the award of bachelor of clinical medicine and bachelor of surgery of Kampala International University, 2014. The study will provide additional resources and reference for future researchers in the same areas of interest, and finally, the study results will be subjected to further evaluations to improve understandings about the situations of exclusive breastfeeding in Galkkaio district in particular and Puntland_somalia in general.

CHAPTER TWO

LITERATURE REVIEW

Despite some improvements in child mortality rate in Africa, neonatal mortality has largely remained the same or worsened in many countries. In 2003, neonatal mortality accounted for almost 40 per cent of estimated 9.7 million children under-five deaths and for nearly 60 per cent of infant deaths (UNICEF, 2006)

Savage kings 1992, observed that most mothers in many, third world nations choose to stop breastfeeding and use bottle feeding regarding advantages of breastfeeding and disadvantages of bottle feeding and switching on to formula feeding, feeding should begin as soon as the baby is born(Savage King 1992).

According to UNICEF in 2006 of the 10 million deaths in under-5 children recorded that year, 4 million die within the first month of life, half of these within the first 24 hours. Because malnutrition increases a child's risk of dying from many diseases — most prominently measles, pneumonia, and diarrhoea which are the highest cause (70%) of neonatal deaths — programs to improve nutrition can reduce mortality from several diseases simultaneously(UNICE, 2006)

Feeding practices adopted by mothers depends on the knowledge, attitude, socio-cultural tradition they are exposed to.(echeku 2004). Owing to the known nutritional and health benefits to the infant, the World Health Organization recommends that women in resource-poor countries exclusively breastfeed until their babies reach 6 months of age (WHO,2002)

Dean Miller et al, 1998 later showed that various factors that predict successful breastfeeding are varied and include social class. according to him the majority of women who planned to breast feed their babies while still pregnant had much greater chances of being successful than those

who remained undecided during pregnancy and were encouraged to breastfeed only after birth (Dean. F. Miller et. al; 1998).

Their study further showed that children who are breastfeeding are healthier than those not and they obtain all necessary nutrients needed for the early childhood growth and development. (opcit).

His findings are supported by the study done by Meek(2002) which showed that women in rural areas breast feed more often than women in urban areas, because they do not face these obstacles and are less exposed to the commercial formula promotions found in many cities and central hospital facilities(Meek, J. Ed; 2002).

Meek further argued that whether these women work in the modern sector and live in cities or lead a more traditional life, cases of malnutrition, diarrhea, failure to thrive, mother-child bonding absence is observed; he thus concluded in his study that, efforts should be made to educate and emphasize the importance of exclusive Breast feeding in the first 6 months to reduce these cases, and improve the wellbeing of our children (ibid)

Experimental studies have demonstrated that mothers who breastfeed becomes well established and are more likely more than others to continue breastfeeding after returning to paid employment or school (James et. al; 1996).

Also, NBGH showed that Women who are knowledgeable and confident about breastfeeding are more likely to succeed (NBGH; 1996).

A cross-sectional study of 444 working mothers was undertaken in Nairobi, Kenya. About one half of the mothers were in formal paid employment and the rest were self-employed. The mean number of hours the mothers were away from home due to work was 46.2 hours per week. The prevalence of exclusive breastfeeding was 13.3% at three months (Collins, 2002)

Early introduction of complementary foods was high, with 46.4% of the mothers introducing other foods before one month. Breast milk insufficiency and return to work were the main reasons cited for the cessation of exclusive breastfeeding. In a logistic regression analysis the

mode of work (fixed working hours versus shift working hours) was associated with exclusive breastfeeding at one month (OR=0.45) and two months (OR=0.39)(op cit)

Exclusive breastfeeding was more common among mothers with supportive husbands on breastfeeding compared to non-supportive husbands. In Malaysia or Asian setting, the husband plays a major role in decision making about family and household matters. Banks documented a highly paternalistic pattern of behavior where husbands have traditionally held authority over many aspects of family life including intra-household decisions in an ethnographic study on family life in Kelantan, Malaysia (Banks, 1983)

Studies conducted in Malaysia and Hong Kong reported similar findings where mothers with their first child were less knowledgeable and skilful in breastfeeding (Chen,1987).

Alice et al showed that Working mothers were able to continue breastfeeding, although the exclusive breastfeeding rates were low. According to her findings, Shift work makes it impossible for some mothers to exclusively breastfeed their infants.(Alice, 2012)

Stanley et al, carried out an analytical study in Nigeria to describe maternal socio demographic factors and practice of breastfeeding and showed that awareness (95.3%) and knowledge (82.0%) of EBF was high among surveyed mother but the practice of EBF (33.5%) was very low(Stanely,2014)

Donatus (2014) study further revealed that Positive attitude towards EBF practice was shown by many (71.0%) of surveyed mothers. He described that decreased likelihood of EBF practice was found among mothers of lower educational attainment, OR 0.33 (95% CI 0.13, 0.81), mothers who delivered through caesareansection, OR 0.38 (95% CI 0.18, 0.84), mothers of higher socio-economic status [(middle class, OR 0.46 (95% CI 0.22, 0.99)and upper class, OR 0.32 (95% CI 0.14, 0.74)] while increased likelihood of EBF practice was seen in mothers who gavetheir infants breast milk as their first feed, OR 3.36 (95% CI 1.75, 6.66(Donatus, 2014)

In kawempe, Kampala suburb, oyang 2007 showed that the overall prevalence of EBF was 335/594 (56.3%). The age specific prevalence of EBF at 0-2 months was 85.9% (OR 0.09 95%

C1 0.06-0.14); 3-4 months 52.1% (OR 1.48 95% CI 1.05-2.11); 5-6 months (OR 11.89 95% CI 7.34-19.26)(oyang, 2007)

Oyang study further showed that Female infants were 1.7 times more likely to breastfeed exclusively than males OR 1.7 (95% CI 1.15-2.610). Mothers with no formal employment were 1.7 times more likely to breastfeed than those with formal employment OR 1.7 (96% CI 1.11-2.83). From the qualitative analysis, factors that hindered EBF included mothers, having inadequate breast milk, going to work, being sick or have breast infections, becoming pregnant, having HIV infection and not allowing them to take their children to places of work (oyang, 2007)

CHAPTER THREE:

STUDY METHODOLOGY

3.0 General Introductions

This Chapter presents detailed descriptions of the methods that will be employed to collect, analyze and present data. It also entails research design, population and sampling techniques, target population, sample size, data collection methods, research instruments and procedures, data and assumptions.

3.1 Study Design

This study was cross sectional, descriptive and explorative study, which was conducted at Galkaio Hospital, Mudug region, central Puntland_somalia.

3.2 Study Population

The study was carried out among women of Reproductive age who are Breastfeeding. This target included population of mothers in the postnatal ward in the maternity, mother who have brought their children for immunization and mothers who are retuning with post natal checkup.

Galkaio hospital receive about fifty mothers in the wards(maternity) weekly and about thirty return for immunization within the first six weeks. The number of mother returning their children for all schedules of immunization arte about four hundred in a week.

3.3 Sample size determination

The sample size was determined by use of fisher's formula.

$$n = \frac{z^2 p(1 - p)}{d^2}$$

Where; n=Sample size

z=Standard deviation of the desired degree of accuracy

p=proportion of the population with the desired characteristics.

d=Proportion of error the researcher is able to accept.

The proportion of mother practicing exclusive breastfeeding in Uganda is about 15 % (MoH, 2012)

P= 0.15, d= 0.07, z= 1.96, the calculated sample size was 100 respondents

So when we substitute in the above formula,

$$n = \frac{1.96^2 \times 0.15(1 - 0.15)}{0.07^2}$$

n= 100

3.4 Data Collection

Data was collected from respondents by means of a questionnaire (primary data). Whereas the secondary data was collected from soft and hard copies of data that were collected, processed and sorted for other purposes which were found to be related to the researchers' area of interest. Such information were used to supplement and back up the primary data collected only.

The secondary source of data included among others, journals, magazines, media (internet and newspapers), and study reports of other researchers. Specifically, the following study instruments were deployed throughout the process of data collection.

3.4 .1 Questionnaires

Simple questionnaires were developed with the structured sets of questions which was administered to appropriate respondent. It is in these questions that respondents gave their responses. The questionnaire captured data regarding socio-demographic variables, parity, breastfeeding practices and barriers to breastfeeding.

3.5 Study Limitation

The most significant barrier related to this study was the fact that data was collected for a short period of time, meaning that the respondent will not explore a large number of mothers to give a varied opinion on the issues of study. The researcher believes that different group of mothers

may have a varied range of challenges and thus would be interesting to interview quiet a range of them.

3.5 Ethical Consideration

Approval was obtained from the faculty of clinical medicine and dentistry of Kampala International University (KIU) western campus. Subsequently: Informed consent was sought and obtained from respondents before they are interviewed. Privacy and confidentiality for information provided was assured to all participants. They were also assured that information provided were used strictly for the purpose it was collected. The data collected was coded to avoid disclosing a respondent's identity. The research assistant were briefed and supervised to ensure that she does not pick individual identifications but rather used short codes in the questionnaires. The autonomy and right of participants to refuse to consent or give any information they feel uncomfortable with shall be guaranteed. The participating consented to participate in this study or decline to participate. The participants were assured that had the rights to withdraw from the study at any point without affecting the outcome; and that they are free to withhold any information or decline to answer any question which is not comfortable for them.

Participants' safety was assured, and disclosure of respondents' identity were avoided to minimize the risk of volunteering information for the study. All the questionnaires collected from the different respondents were kept in a safe private place until when data entry was completed. Immediately thereafter, all the questionnaires were burnt.

CHAPTER FOUR

STUDY RESULTS AND FINDINGS

4.1 Socio demographic Data

Table 1: Socio-demographic characteristics of Respondents

		Frequency	Percent
Age	18-27	30	30
	28-37	41	41
	38-47	20	20
	48-57	9	9
	Total	100	100.0
Marital status	Single	84	84
	Married	16	16
	Total	100	100
Religion	Islam	100	100
	Christian	0	0
	Total	100	100

The table above shows that majority of the respondents were within the age groups of 28-37 years age group, 41%, followed by the 18-27 years age groups, 30%. The least were 48-57%, 9%. In terms of the

marital status, single were the majority, 84(84%), and the married were 16(16%), the religious distribution of were that 100% of the respondents were Muslim

4.2 Practice of Breastfeeding

Table 2: Duration of Breastfeeding

		Frequency	Percent
Duration	Less than 6 months	27	27.0
	6 months	33	33.0
	7-12 months	28	28.0
	above 1 year	12	12.0
	Total	100	100.0
Number of breastfeeding per day	6 times	10	10
	8 times	13	13
	More than 8 times	22	22
	On demands	45	45
Breastfeeding sick child	Yes	60	60
	No	40	40
Time of weaning	2-4 months	17	17
	4-6 months	35	35
	6 months	19	29
	More than 6 months	19	19

Table one above shows that most of the mothers breastfed for 6 months (33%), FOLLOWED by those who breastfeed 7-12 months (28%) and those who reported breastfeeding for less than 6 months (27%). The least number of mother reported breastfeeding for more than 1 year.

According to the table, majority of the mothers started weaning after 4-6 months (35%), 29 % started weaning at 6 months and 19 % started weaning after 6 months.

60% agreed that they breastfed their children when they are sick, 40% mentioned that they do not breastfeed sick children.

4.3 Cultural Barriers

	for how long		Total	
	six months	one year		
start breastfeeding	At birth	18	10	28
	1 day after birth	48	19	67
	Total	66	29	95

Table 3: Cultural practice of initiating and duration of breastfeeding

The table above shows that majority of the mothers start breastfeeding by 1 day after birth and breastfeed for six months (48%), while 18% of the mothers start breastfeeding at birth and breastfeed for six months. For those who started breastfeeding 1 day at birth, 19% reported breastfeeding for one year and 10% of those who initiated breastfeeding at birth do so for one year.

What does your culture say about breastfeeding?	Frequency	Percent	
Cultural view on exclusive breastfeeding	Baby gets weak	35	35.0
	Baby do not get enough milk	58	58.0
	No Answer	7	7
	Total	100	100.0

Table 4: Cultural view on breastfeeding

Table four showed that 35% of the mothers said that their culture says that baby do not get enough milk when they practice exclusive breastfeeding, 58% said the baby do not get enough milk.

CHAPTER FIVE

DISCUSSIONS, CONCLUSION AND RECOMMENDATION

5.1 Discussion

This study showed that most of the mothers breastfed for 6 months (33%), followed by those who breastfeed 7-12 months (28%). This study showed most mothers practices exclusive breastfeeding in the study area. Though most of the mothers practice exclusive breastfeeding, the proportion of mothers who practices nonexclusive breastfeeding is still high as well.

This study finding showed that the practice of feeding practices adopted by mothers depends on the knowledge, attitude, and socio-cultural tradition. Previous studies in this area had shown that mothers had limited knowledge on the benefits of exclusive breastfeeding and the research is convinced that this findings could have been influenced by other factors such as those mentioned earlier on.

Another reason for the low prevalence of exclusive breastfeeding in this area could be due to the fact that the HIV prevalence in the study area is low. In 2012, one study from Galkaio was at 1.3%. The findings also were similar to another study by Galkaio Medical Center (GMC) from Galkaio who showed that socio-economic factors were responsible for the variation in the breastfeeding practices in Puntland_somalia. Similarly it could have been as results of the cultural practices among the Islamic communities where exposure of a woman's body is highly restricted meaning that mother may not wish to breastfeed in the public.

This also impart implies that if mothers do not practice an aggressive exclusive breastfeeding, most of the children would end with malnutrition, HIV transmission and poor bondage between mother and child as exclusive breastfeeding has been shown to help. UNICEF study in 2013 showed a similar finding. According to their report published by the ministry of health in Puntland_somalia, most of the children were malnourished. UNICEF claimed the major cause of this malnutrition was associated with the feeding practices in this area. Though this study did not underscore the relationship between malnutrition and the practice of exclusive breastfeeding,

researcher need to understand this in details. So, another study and/or follow up should be initiated to define the relationship between the two variables.

According to this study, majority of the mothers started weaning after 4-6 months (35%), 29 % started weaning at 6 months and 19 % started weaning after 6 months. This has revealed that there is introduction of solid foods slightly too early in a child life as shown by the high percentage. The WHO recommends introduction of solid foods at 6 months and later on. But results from various studies in Puntland_somalia have persistently reported early initiation of solid foods. This reason for this is undocumented but there is consent among the community that this is just part of the Somali culture.

Studies have documented the role of exclusive breastfeeding and early initiation of foods to infants (Arenz *et al.* 2004; Grummer-Strawn & Mei 2004; Johnson *et al.* 2006; Ip *et al.* 2007; Li *et al.* 2007), mentioned that delayed introduction of solids (Wilson *et al.* 1998; Kalies *et al.* 2005; Johnson *et al.* 2006) and early initiation of healthy feeding attitudes and practices (Sayer *et al.* 2004) prevents infant overweight and subsequent childhood obesity.

In addition, improved infant nutrition has wider implications over a person's lifetime because infancy is when the groundwork for dietary habits and nutritional adequacy is laid (PAHO 2003). Appropriate food and nutrition during infancy are also essential for physical growth, mental development and a healthy immune system (Hedger *et al.* 2000; WHO 2001).

When these learned healthful habits and preferences are carried into adulthood, the likelihood of productivity, health and well-being are increased and infectious and chronic disease risks are reduced (Birch & Fisher 1998; Bentley *et al.* 1999; Barton 2001). The benefits of breastfeeding, particularly exclusive breastfeeding, have also been well established.

This study findings showed that 35% of the mothers said that their culture says that baby do not get enough milk when they practice exclusive breastfeeding, 58% said the baby do not get enough milk. Similar studies have documented similar barriers to exclusive breastfeeding.

Currently, what is known about barriers to breastfeeding in racial/ethnic minority populations comes from studies with low-income ethnic groups in the United States and the United Kingdom. Those studies identify barriers to breastfeeding at multiple levels (e.g. structural, individual) that influence each other and contribute to formula supplementation and early discontinuation: work environments that do not support breastfeeding, lack of access to prenatal care and health education, embarrassment about breastfeeding in public, a bottle-feeding / formula feeding culture among family and friends, difficulty with breastfeeding, perceptions of insufficient milk supply or the infant not getting enough milk and lack of knowledge about breastfeeding benefits were some of the cultural barriers documented by Barber and Carothers.

5.2 Conclusion

The study concluded that there is low practice of exclusive breastfeeding at Galkaio District, Mudug region, Puntland_somalia. This was majorly influenced by the cultural believes and barriers in this study area.

5.3 Recommendation

This study recommended that

The government of Puntland_somalia, especially Mudug region should institute maternal education programs to teach mothers about breastfeeding and early child hood development.

The community leaders should initiate mother to mother peer program to overcome the rampant cultural barriers in the implementing of exclusive breastfeeding.

Another study should be conducted to determine drivers and the outcomes of the breastfeeding practices among women in Mudug region on their child's development

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Appendix I: Data Collection Tool

Part A: Social Demographic Characteristics

1. Age of the mother (Please state).....

2. Marital status of the mother

(a) Single

(b) Married

(c) Widowed

(d) Separated/divorced

3. Educational level of the mother

(a) None

(b) Primary

(c) Secondary

(d) Tertiary/University

4. Occupation of the mother

(a) House wife

(b) Civil servant

(c) Self employed

(d) Peasant/farmers

5. Main occupation of the father.

- a) Civil servant
- b) Businessman
- c) Unemployed
- d) Others

(specify).....
.....

Practice of Exclusive Breast feeding

1. How long do you breastfeed a child without other foods being given?

.....

2. Do you usually breastfeed a sick child?

(a) Yes

(b) No

6. If no give reasons for your answer.

.....

8. How many times do you breastfeed 24 hours?

a) 6 times

b) 8 times

c) Less than 8 times

d) On demand

9. When do you introduce other foods? (Weaning diet)

- a) Less than 2 months
- b) 2-4 months
- c) 4-6 Months
- d) After 6 months

Cultural barriers

- 1. When does a woman start to breastfeed according to your culture.....?
- 2. For how long.....
- 3. What does your culture say about exclusive breastfeeding?
.....
.....
.....

Appendix II: Work Plan

S/NO.	ACTIVITIES	S	O	N	D	J	F	M	A	M	J	J	PER.RESPN.
1	Topic formulation	X											Student/OSMAN
2	Synopsis writing		X	X									Student/OSMAN
3	Draft proposal writing				X	x							Student/OSMAN
4	Approval of proposal						X	X					Supervisor/Prof.Begumiye
5	Data collection						X	X	X	x			Student/OSMAN
6	Data analysis and limitation.							x	X	x			Student/OSMAN
7	1 st draft report								X	x			Student/OSMAN
8	Correction of 1 st draft										x		Student/sup.
9	Pdn. Of final report.										x		Student/OSMAN
10	Approval											x	Supervisor/Prof.Begumiye

Appendix III: Research Budget

S/NO.	Items	Quantity	Rates Each	Total Amount(\$)
1	Stationary			
	-Pen	6	\$0.25	\$1.25
	-Ream of paper	2	\$3	\$6
	-Note book	3	\$1	\$3
	-Clip board	1	\$2	\$2
2	Secretarial services			
	Typing and printing	60 pages	\$0.5	\$30
3	Flash disk	1	\$20	\$20
4	Binding the final work	3 copies	\$1	\$3
5	Refreshment			
	Food/water	-	\$5	\$5
	TOTAL			\$70.25

Appendix IV: Map of Galkaio District

