

**DETERMINANTS OF BREAST FEEDING PRACTICES IN
USIGU DIVISION OF BONDO DISTRICT //**

BY

**MARY MUYOKA NYIKURI
(BA ANTHROPOLOGY)**

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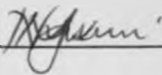
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DECLARATION

This thesis is my original work and has not been presented for a degree in any other university



12-11-2001

Mary Muyoka Nyikuri

Date

This thesis has been submitted with my approval as a University Supervisor



12/11/2001

Dr. Stevie Moses Nangendo

Date

DEDICATION

With love to my mother
Taria Khahoma Nyikuri

Who is there like you mama?"

and

To my niece
Taria Trixie Khahoma

'You are such a well of joy'

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ABSTRACT

This study examined the determinants of breast feeding practices in Usigu Division of Bondo District. It was designed to investigate whether the age of the mother and the use of contraceptives influenced the way children are breast-fed. The study also investigated the extent to which the gender of the child and mothers' perceptions of the importance of breast-feeding affects the way children are breast-fed.

The study, which was done between the periods of January and March 1999, enlisted a total of 100 respondents. In order to have a comprehensive study, North Yimbo was selected as the base for the study.

Data were collected by means of structured interviews, focus group discussions, key informants and life histories. Data analysis involved the use of descriptive methods and presentation was in the form of frequencies and percentages. The study adopted the theory of real-life choice.

The study came to the conclusion that first, young mothers tend to introduce supplements earlier than older mothers and therefore mothers' age had an effect on breast-feeding practices. Second, contraceptive use was not mentioned to have an effect on breast-feeding duration. Third, the child's gender had significant effects on breast-feeding and,

fourth, mothers' perceptions of breast-feeding have a considerable effect on how children are breast-fed.

The study, thus, recommends that any nutrition programme should target young mothers, who need to know that the amount of breast-milk produced depends on how frequently and intensively they breast feed their babies. It also recommends that mothers need to be informed on the appropriate methods of child spacing, and the effects these may have on breast-milk. Finally, the success of nutrition programmes will largely depend on their acceptability and relevance to women as social actors.

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CHAPTER ONE

BACKGROUND INFORMATION

1.0 INTRODUCTION

This chapter highlights the importance of breast feeding to both the mother and baby, as well as the situation of breast- feeding in developing countries. It also includes the statement of the problem, study objectives, and study justification.

In the recent past, the importance of breast feeding as a basis for healthy child growth and development has become recognized (WHO, 1981). The WHO goes on to report that as scientific evidence accumulates on the unique nutritional and immunological properties of breast milk as well as on the effects of breast feeding on reproductive function and mother- child bonding, concern is increasing about the possible effects of a decline in breast feeding on the well being of children. Regardless of the medical advances and improvements in public health made in this century, breast-feeding remains beneficial for both the mother and baby. In many developing countries, the risk of a baby or child dying is much higher for those who are not breast-fed. However, breast milk does a lot more than just protect against infant mortality.

For instance, it provides immunological, nutritional, hygienic and financial benefits to mothers (Worthington-Roberts and Williams, 1992) and it is particularly important for both pre-term and low birth weight babies. On the other hand, research shows that babies fed with breast milk substitutes are more prone to infections and more likely to be hospitalized, even in affluent situations (National Health & Medical Research Center 1996).

Immunologically, breast milk protects infants from gastroenteritis, lower respiratory tract infections, ear infections, bacterial infections, meningitis, urinary tract infections, and scabies in the short term (Brodrigg, 1997:9). In addition, in the middle to long term, there is evidence that being breast-fed helps protect against diseases of the colon, inflammatory bowel disease, insulin-dependent diabetes and childhood lymphomas (Brodrigg, 1997:9).

The milk of a mother provides proteins, fat and carbohydrates at levels unique to humans and it is ideal for the growth and development of babies and children (AMREF, 1991). The different types and levels of fat in human milk enhance the brain and the development of the central nervous system. In fact, Glick (1997) observes that breast-fed infants have IQs that are higher than those of bottle-fed infants. Nutritionists theorize that this difference in intelligence may be the result of growth promoting, long chain fatty acids found in breast milk. It may be related also to the fact that breast fed infants have fewer infections and, thus, learn more than ill infants (UNICEF, 1998). Visual evoked responses

in young babies similarly show a difference between those who are breast fed and those who are formula fed (Brodribb, 1997).

There are also other advantages for babies that are breast fed. For instance, breast milk is easy to digest and it is at the right temperature. It does not need to be boiled or cooled before it is fed to the infant (AMREF, 1991).

The economic value of breast milk was studied by Almoth and Greiner (1981) in Ghana and Cote D'voire, as a result of a request from the Norwegian Ministry of Agriculture to FAO to examine the declining use of mother's milk in developing countries. The study concluded that "the savings in national goods cost could amount to US\$ 16 to 18 million annually. At the individual level, by breast feeding for two years, the average family in either country would save between US\$ 600 and 1000 in the cost of goods and time, plus any savings that might result from the avoidance of disease or malnutrition caused by artificial feeding" (UNICEF, 1981:36).

Mother-child bonding posed no problem in the past because breast-feeding was the usual practice. In addition to this bonding process, breast-feeding brings the mother the emotional satisfaction of knowing that she is meeting her baby's nutritional needs. It is also convenient for her, especially as it does not entail the cleansing and sterilization of utensils nor their purchase and it causes little disturbance, especially at night, in crowded and poorly illuminated homes of the developing countries (Haagenson, 1997).

Although a natural process, breast-feeding varies across populations as well as within a population, across socio-economic and cultural groups. This is because it requires a lot of patience, encouragement and advice, especially for a mother nursing her first child. In many cultures, relatives and friends who have breast-fed before provide the much needed information, advice and emotional support to the new mother (Okwayo, 1989).

In fact, writers on Africa, never fail to discuss the long periods of breast-feeding and the weaning practices among African women. Indeed, breast-feeding looms large in medical recommendations and nutritional policies for developing countries in spite of its apparent decline in these areas. However, many of these medical writers ignore the difference in local, social, and cultural conditions in developing countries. This disregard has led undue simplifications of the issues involved.

Despite the importance of breast-feeding, it is worth noting that the practice is on the decline. Berg (1973) notes that in Kenya the practice was up to five years by 1950 but it had greatly declined by the beginning of the 1970s.

Noting that the duration of breast-feeding in Kenya is progressively declining, Mosley (1982) state that the duration in the country is 16.5 months on average, with rural mothers breast-feeding longer than their urban counter parts. It was upon this background that the researcher attempted an investigation into some of the local cultural determinants of the duration and patterns of breast-feeding in Usigu Division of Bondo District.

1.1 PROBLEM STATEMENT

This study examined the socio-cultural factors that determine breast-feeding practices. The need to focus on these factors arose from the premise that they are important when considering breast-feeding practices of a mother or mothers of a particular community. Okwayo (1992) and UN (1987) point out that breast feeding in developing countries, generally, and in Kenya, specifically, is on the decline.

Popkin (1985) examined patterns and determinants of breast-feeding in low-income countries and postulated factors affecting the practice. These include: time allocation (if a mother's time is more valuable elsewhere, she is likely to substitute the practice), family size, child spacing, and parity.

Ebrahim (1991:42) and Okwayo (1992) have argued that mothers in Kenya breast-feed for shorter periods of time because of the nature of their occupations. Thus, mothers who are employed in the formal sector are likely to breast feed for shorter duration than those ones in the informal sector. This is mainly due to the little time allocated for breast feeding schedules (Okwayo, 1992).

The age of the mother is a factor that determines breast-feeding practices. For example, young mothers breast-feed for shorter duration because of their status in their matrimonial homes (Popkin, 1985). The researcher attributes this to the many domestic chores they have to attend to. Alternatively, they may be under pressure to give birth as often as possible to prove their fertility. Popkin continues to say that young mothers also tend to

be formally educated and, therefore, consider breast -feeding to be an old fashioned practice. A common complaint among young women is "lack of milk" which is associated with contraceptive use (Helman, 1994, McCann et. al. 1984).

Contraceptives come in different forms and each of the method has its own side effects on the mother. Modern contraceptives may or may not cause milk suppression, but there is a general agreement among medical personnel that certain kinds of pills do affect milk secretion (USAID/Wellstart, 1994; Pebley et al. 1985). Among some of the reasons given by women in a poor urban neighbourhood in Cairo, Egypt, for stopping breast- feeding include maternal illness, pregnancy, employment outside the home, medical advice and the use of oral contraceptives (Helman, 1994).

Likewise, the gender of the child may have an influence on the pattern and duration of breast- feeding. For instance, in many patrilineal societies such as that of the Luo, the importance of sons cannot be over-emphasized. Thus, a woman without a son struggles to get at least one. Failure to bring forth a son can earn her a co- wife (Ogola, 1995). This preference for sons may lead to preferential treatment of boys, specifically in breast- feeding.

Mothers' perceptions of the importance of breast- feeding may have an influence on how they breast feed their infants. For instance, Helman proposes the term 'body image' to cover the range of ways in which culturally rooted individuals conceptualize and experience their physical bodies, whether consciously thought of or not (Helman,

1994:12). The particular body image of a society, "provides each person with a framework for perceiving and interpreting their own physiological experiences' (in this case, breast feeding)

WHO (1981) has noted that there is no reason to believe that any significant change has taken place in the biology of the contemporary woman that would make her less able to lactate and breast feed than her predecessors of a few generations ago. However, the report goes on to state that the cultural milieu is an unfavorable influence on breast-feeding.

This study was, therefore, designed to find out whether cultural factors determine breast-feeding practices of mothers in Usigu division of Bondo District. In view of the above, it sought to answer the following questions:

1. How does the age of a mother influence breast- feeding?
2. Does contraceptive use affect breast- feeding duration?
3. How does the child's gender determine breast- feeding practices?
4. What are the mothers' perceptions of the importance of breast feeding and how do these affect the practice?

1.2 RESEARCH OBJECTIVES

1.2.0 Overall objective

The main objective of this study was to investigate the influence of some cultural determinants on breast feeding practices in Usigu division of Bondo District.

1.2.1 Specific objectives

1. To investigate and document the effect of mother's age on breast-feeding.
2. To determine the effect of contraceptive use on breast-feeding.
3. To find out if there is gender preference in breast-feeding.
4. To find out mothers' opinions of the importance of breast-feeding and document any effect these may have on the practice.

1.3 Justification

The study was deemed justifiable because of the following reasons.

One of the traditional practices related to childcare, which is undergoing the most rapid change in developing countries, is that of breast-feeding. While most women expect to breast feed and nearly all women do initiate it, there are other factors, which detract them from the benefits that this practice brings to them and their infants.

Kenya's nutritional data show that infant deaths related to malnutrition are more likely to double by the year 2000 unless measures are taken to minimize the crude death rate

nationally (CBS, 1988). Malnutrition is cited as one of the top five causes of infant mortality in the area under study (GOK, 1996).

More often, malnutrition disorders in children start during breast-feeding and at weaning. The success of both national and regional programmes to promote better feeding of infants and young children, especially breast feeding, depends on adequate information on contemporary patterns of the practice. It is with this intention that the study aimed at documenting contemporary information on this practice among the Luo of Usigu division.

Finally, this study was policy- oriented, since estimates of breast feeding patterns and differentials are necessary for the Government of Kenya to formulate policies related to maternity leave, creation of baby -friendly working environments, the kinds of contraceptives to be availed to lactating mothers, and, finally, to achieve WHO's target of "health for all by the year 2000". To improve child health is to improve the general health of the community and this depends on adequate information.

This study was not only designed to provide information upon which donors and other non-governmental organizations can refer to in designing projects to improve the health of children in a rural setting, but also to contribute additional literature on the subject for future scholars to draw upon for reference.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.0 INTRODUCTION

The chapter divides the literature reviewed into four parts. These are: the age of the mother and breast feeding, breast feeding and contraceptive use, gender of the child and breast-feeding and, finally, mother's perceptions and breast-feeding. It also deals with the theoretical framework as well as the assumptions, which guided the study.

2.1 LITERATURE REVIEW

2.1.0 Mother's age and breast-feeding

Previous studies have generally shown longer breast feeding duration among older women (WHO, 1981). An analysis done for eight countries (based on world fertility survey) using reported duration indicated that older women breast-feed longer than younger women do. A positive association of the length of breast-feeding and either age or parity of the mother was largely attenuated once modernization variables, such as education and residence, were controlled (Jain and Bongaarts, 1981). This suggests that there exists a widespread trend to shorter duration that is related to modernization or general socio-

economic development and, coincidentally to age (since age itself is related to such variables as education and rural or urban residence). This is due to several reasons; for example, increased availability of substitutes for breast milk, a growing importance of new ideas and attitudes which compete with traditional lactation practices and a higher level of income to be able to afford the substitutes.

The positive association between breast-feeding and age could be due to common child-rearing practices. For example, in an extended family set-up, newly married women (who tend to have an inferior status), may sometimes find prolonged breast feeding incompatible with their workload (McCann et al. 1981). In general, there is an increase in breast feeding duration with age, although most studies on breast feeding differentials have treated the age of the mother and her parity as almost interchangeable variables. For instance, the mother's age is often used for a cohort or cohorts (breast feeding may be declining in a society over time), fecundity (older women may breast feed longer because they are less likely to become pregnant), or other normative aspects of age (it may be considered inappropriate for an older woman to breast-feed). Women with more children have demonstrated high fecundity and may signal attachment to more traditional values and behaviour (Okwayo, 1992; Sempebwa, 1981).

A study carried out in Siaya District by Otieno (1989) showed that, on average, women breast feed for 17.7 months and that this duration increased with an increase in the age of the mother and parity. Similarly, Smith and Ferry (1984) found that the mean duration of breast-feeding increases with age and parity, although the age effects are stronger in

populations in which women lactate for relatively longer periods. Sempebwa (1981) carried out a similar study in Kawangware, a residential area in Nairobi, and came to the same conclusions, but attributed the difference to early supplementation by young mothers that resulted in a 'let down reflex in milk production.

2.1.2 Breast-feeding and contraceptive use

Although breast-feeding has the known effect of delaying ovulation, it may prove an unreliable method of avoiding conception for the individual woman if it is used alone (UN, 1987). This is because during the period of full breast feeding, the use of contraception may be unnecessary, especially if feeding is on demand, but when it is reduced or terminated and mixed feeding introduced, the period of lactation amenorrhoea, that is, the absence of menstruation while breast feeding, ends soon after (Gross, 1997:88; UN, 1987). However, the uncertainty surrounding the time of the return of most ovulatory cycles makes breast feeding an unreliable method of contraception. Therefore, artificial contraceptive protection may be required as early as six months after birth or even earlier if pregnancy is to be avoided (UN, 1987).

Sexual abstinence is known to have been practiced among some societies for as long as two to three years, for example, among the Yoruba of Nigeria and the Javanese of Indonesia (Kent, 1981) as well as among the Luo and the Tugen of Kenya (Blount, 1973). However, this duration and incidence of post-partum abstinence is thought to be declining in most of these countries (Caldwell and Caldwell, 1981; Hull, 1980; Lesthaeghe 1984;

McCann et al. 1981). Ofusu (1994) argues that this tradition of long spaces between births is being eroded as a result of socio-economic change associated with factors such as education, urbanisation, employment in non-traditional economic activities and the spread of imported religions.

The main function of prolonged breast-feeding and abstinence is to safeguard maternal and child health by postponing a further pregnancy until weaning can safely take place while, at the same time, giving the mother a reasonable length of time to recover from the effects of the last pregnancy (Caldwell and Caldwell, 1977; Lesthaeghe 1984).

The erosion of traditional post partum behaviour will result in shorter birth intervals and increased fertility, if the contraceptive effects of prolonged breast-feeding and abstinence are not adequately compensated for. The effects of this erosion on fertility have already been observed in countries like Malaysia (Butz and Da Vanzo, 1981) and Thailand (Knodel and Debavalya, 1980). This decline in post- partum abstinence and, therefore, an increase in fertility, has led some countries into finding alternative methods of keeping fertility rates low.

Most nations of the world now have policies that support family planning programmes. That could not be said even two decades ago. The shift in attitude and behavior towards limiting family size has occurred much faster than most other kinds of social change, facilitated in a great part by modern developments in contraceptives (IDRC, 1990). This report goes on to say that the era of modern contraceptives, which began in 1960 with the marketing of oral contraceptives, spawned revolutionary changes in attitude. Women

could control more easily and effectively when and whether to have babies. The pill offered a method that was comparatively easy and convenient, relatively safe, reversible and highly effective when properly used. However, oral contraceptives are not appropriate for every woman (IDRC, 1990).

Studies carried out by USAID and Wellstart International (1994) in Kibungo and Gitarama provinces of Rwanda indicate that few women mentioned the issue of the potential effects of birth control pills and other chemical contraceptives on lactation. However, a mother of a malnourished two-year old said that after she began taking 'Depo provera shots' at one-month post-partum, her milk production decreased. Another mother said that taking birth control pills had decreased her milk supply (USAID /Wellstart, 1994:18).

The use of modern contraceptives is consistently associated with a smaller likelihood of initiating breast-feeding and with a shorter duration (McCann et al. 1984). The work done by Gomez de Leon and Potter (1989) has demonstrated clearly that the timing of the initiation of contraceptives and weaning are closely related, either because women think that breast feeding and contraceptive use are incompatible or because they view contraception as a substitute for lactation sub-fecundity. Millman (1985) has interpreted her analysis of Taiwanese data as supporting the notion that women substitute contraception for breast-feeding to avoid pregnancy. She argues further that the physiological effect of oestrogen in oral contraceptives on the quantity of breast milk is not a major determinant of weaning. Nevertheless, there is still concern that the use of

hormonal contraceptives by lactating mothers may adversely affect infant health because of steroid secretion in breast milk and a reduction of its volume.

From the above literature it is clear that contraceptive use has an effect on the breast milk and, therefore, breast-feeding. Thus, a study of this relationship in the study area is needed.

2.1.3 Gender of the child and breast-feeding

All human societies divide their population into two social categories, namely, male and female. Each of these categories is based on a series of assumptions drawn from the culture in which they occur - about the different attributes, beliefs and behavior characteristic of the individuals included within each category. Although this binary division of humanity into two genders is universal, on closer examination one can see that it is a rather more complex phenomenon, with many variations reported on how male and female behavior is defined in different cultural groups (Helman, 1994).

The female child is accorded a lower status than her male counter part in most societies in Kenya although she is born with a natural biological survival advantage. There is a strong correlation to this. Several customs and traditions exist which deny girls and women proper food and adequate nutrition and this affects their health status (Rogo, 1995). The girl child is disadvantaged by societal practices that emphasize the notion that she is of less value.

According to UNICEF (1981, 1998) the female child enjoys a much lower status in relation to the male child. Disparities start at birth with the different values attached to the two types of gender. The reports continue to say that often boys have a first call on family and community resources and it is plain that gender discriminating treatment in childhood will result in deeply entrenched gender discriminating attitudes in adulthood. This weight of discrimination along gender is so great that it even sways the survival chances of the girl child, although born with a natural survival advantage. This gender bias may lead to preferential breast feeding habits (UN, 1987).

In several countries of South Asia, fewer girls survive than boys due to cultural factors, female infanticide being one of the dominant ones (Miller, 1948). And in this gap between natural and actual survival rates, discrimination can be measured. For example, in Bangladesh, India, and Pakistan, it adds up to more than a million deaths every year. In other words, a million girls die each year because they are born female (Ouko, 1998).

Studies carried out in several Arab countries by Patai (1976) showed that girls are weaned before boys so that mothers could become pregnant sooner and possibly bear a son, though the impact on their daughters' health and nutritional status was not assessed. Blount (1973) has noted that among the Luo, for instance, there is a strong preference for male children. This preference for sons may or may not lead to preferential breast-feeding patterns. However, Mburugu (1987) notes that women in Kenya no longer have breast-feeding preference for boys apart from the uneducated rural women who have no access to income who still favour boys in terms of longer duration. In the light of this, this study

endeavored to find out if there was any aspect of gender difference in the way girls in relation to boys were breast-fed in the area of study.

2.1.4 Mothers' perceptions and breast-feeding

Perceptions in this study have to do with the way mothers view and conceptualize breast-feeding as well as the meaning given to the practice. Emphasis is on women's own versions and attitudes about breast-feeding. In all human societies, the human body is more than merely a physical organism, fluctuating between sickness and health (Helman 1994:12). The question of the relationship between the biological and cultural in regard to the human body has been of concern to anthropologists for decades. Currently, cultural perceptions of the human body are increasing in importance to much anthropological research, particularly within medical anthropology. Helman (1984) proposes the term "body image" to cover the range of ways in which culturally rooted individuals conceptualize and experience their physical bodies, whether consciously thought of or not. The particular body image of a society provides each person with a framework for perceiving and interpreting their own physical and physiological experiences".

Mothers' perceptions are central to the understanding of the choices made in breast-feeding and other childcare practices in relation to health. According to Whyte and Kariuki (1997), mothers in Western Kenya perceived nutrition problems differently from the views of health planners and personnel and, thus, emphasis should be laid on women's own versions of (in this case what determines breast-feeding practices) nutrition problems. In this study, the aim was to comprehend the experiences of the women, not merely as a

pure reflection of the Luo culture, but as agents who use the social means available to them.

2.2 Theoretical Framework

This study adopted the theory of real life choice as a basis for operation. This theory is a two-stage model of the choice process and incorporates some of the simplest procedures people use in making every-day real- life decisions (Gladwin, 1980).

According to Lancaster (1966, 1971), when a decision-maker is presented with several alternatives to choose from, he /she quickly and pre-attentively undergoes stage one of making a choice. At this stage, he/she does away with the alternatives, which he/she does not like. Lancaster demonstrated this with the hypothetical case of a person wishing to buy a second hand car from several cars advertised in a newspaper. The car buyer chooses certain aspects in alternative cars that he/she would not want and uses these aspects to disqualify some of the cars. Such aspects may, for example, include the price, age, make and size. All cars that do not meet his/her listed requirements are then automatically eliminated. Those that pass these demands proceed to stage two, that is, 'hard core' decision making process. But, if all the alternative cars posted for sale pass his/her demands, then the decision-maker must choose other aspects such as speed and colour to eliminate some of the cars.

This theory was adopted because women live in more different biological environments than their counterparts of a few generations ago. In the past, most of a woman's life was spent in childrearing- which implies a long and internal phase of foetal growth and, next, a long and external phase of lactation. Both of these phases, separated by the event of birth itself, are visible and apparently natural. By this I refer to the fact that the foetus grows and the breast-milk flows apparently by no act of will on the part of the woman. Naturalness in this sense, however, does not imply that there are no choices to be made by the women or no decisions to be taken by mothers (Hastrup, 1992).

Contraceptives, abortions, and weaning are part of a larger field of decision making, wherein women maintain that biology is not destiny. Or, at least, that endless procreation is not necessarily part of their own definition of what it is to be female. The decision to breast-feed is one of those choices (WABA, 1985).

In spite of the fact that in society the norms governing breast-feeding do not appear to originate with the mother, it is she who is likely to decide on a daily basis how, when and for how long to feed her child, within the framework of their relationship. Although they may receive advice from different quarters, women often take daily decisions in the light of several considerations. These may include the welfare of the infant, the availability of food, flexibility in scheduling and workload and social support system. Other considerations include the mother's age, her use of contraceptives, the baby's gender, her health, the place of delivery, cultural expectations and her own perceptions of the importance of breast-feeding.

The practice, or absence, of breast-feeding in any particular society cannot be studied without considering the larger cultural context. Instead of seeing it as a natural behavior, it should be considered a cultural action, that is, a deliberate and meaningful act (Ardener, 1973). Case studies among village women in the third world document how breast-feeding and weaning patterns are not governed by blind adherence to tradition, but are products of rational considerations on the part of mothers (Millard and Graham, 1985).

2.3 Assumptions

Following the research problem highlighted, the objectives set and the subsequent review of the literature, the following research assumptions were formulated:-

1. Older mothers breast-feed for longer durations than young mothers.
2. Mothers who use contraceptives breast-feed for shorter durations.
3. Boys are breast-fed for longer durations than girls.
4. Mothers perceptions of the importance of breast-feeding determine how they breast-feed their infants.

2.4 Definition of terms

Mother's age

This is the total number of years as of the time of the interview.

Contraceptive use

The method of artificial family spacing used by the mother.

Mother's perceptions

The views, opinions, beliefs held by the mother concerning the importance of breast-feeding.

Breast feeding practice

These are:

1. The degrees of exclusivity of breast-feeding, or the supply of breast milk unsupplemented with other foods or liquids.
2. The duration of breast feeding, or the number of weeks or months the mother breast-feeds her baby
3. The frequency or the number of times the mother breast-feeds her baby in a 24 hour period.

CHAPTER THREE

METHODOLOGY

3.0 INTRODUCTION

This chapter describes the research site, population sample, sampling techniques and method of data collection and analysis. The problems encountered in the field and their solutions are also presented.

3.1 Site selection

Usigu division was chosen as the study site because it is within the focus area for the Kenya-Danish Health Research Project (KEDAHR) which sponsored this study. The KEDAHR project started its activities in Bondo District with two broad objectives:

1. To strengthen the research capacity of participating institutions within the fields of parasitology, nutrition, educational psychology, social anthropology and health services researches, and,
2. To contribute to the improvement of the health status and school performance of Kenya primary schools by control of helminth infections and improved nutrition.

This study was carried out within the anthropology component of the wider KEDAHR project.

3.1.1 Research site

Usigu Division is one of the four divisions of Bondo District, Nyanza Province. It is bordered by Lake Victoria to the south-west, Uranga and Boro Divisions to the north, and Bondo Division to the east and south-east. It covers 187 square kilometres and is divided into five locations; namely, East Yimbo, North Yimbo, Central Yimbo, West Yimbo and Mageta Island. It has a total of ten sub-locations and seventy-six villages (GOK, 1996).

3.1.2 Population size and composition

According to the Siaya District Development Plan (GOK 1996), the population of Usigu was estimated to be 45,445 persons by 1996, while according to the D.O of Usigu division, it is approximately 53,000 (personal communication, March 1999). The majority of the inhabitants are Luo.

The population is youthful and is dominated by children (0-14) years. For example, over 49.5% of the district population in 1993 was estimated to be children, most of whom fall in the 0-9 age bracket. This age bracket, for instance, accounted for 65% of the total number of children in the district. The 0-9 age group represents children who are not capable of maintaining themselves in any way. It is also vulnerable to some of the endemic diseases, such as malaria, diarrhoea, and measles. The adult population represents 43% of the total while 7.2% are over 60 years old (KEDHR baseline study 1995).

3.1.3 Health Situation

Usigu is served with four health centers, namely, Usigu, Got Agulu, Got Matar and Ulungo. According to a study carried out by KEDAHR (1995), malnutrition is a major health problem in the division. This is due to partly poor weaning habits, low calorie intake (due to both bad eating habits and lack of food), low incomes, low literacy rates, especially among women, and lack of safe water. Most children within this division suffer from marasmus, stunted growth and reduced body immunity system (GOK, 1996; KEDAHR, 1995).

3.2 Study design

The design of this study was, to a large extent, aimed at collecting qualitative data. However, as an entry point into the community, a questionnaire was administered to mothers in North Yimbo. The questionnaire was also used by the researcher to identify important issues that formed part of the qualitative data. Direct observation and informal conversations with women also formed part of this phase.

After administering 100 questionnaires, the researcher identified knowledgeable old women to serve as key informants. In-depth interviews were also carried out in this phase. Interview guides were used to collect information on the mothers' perceptions of the importance of breast-feeding, of colostrum and taboos associated with breastfeeding. Focus group discussions were also held to explore some of the issues that emerged during in-depth interviews and questionnaire administration. During these discussions,

intergenerational ideologies concerning breast-feeding were sought and changes to the practice noted.

3.3 Study population

According to the District Officer of Usigu, the Division has a population of 53,000 persons. This figure was used as the population from which the sample for the study was obtained.

3.4 Sample population

The unit of analysis consisted of all the mothers in the division. However, due to financial and time constraints, it was not possible to study all the mothers in the division. Therefore, a sample population of 100 mothers was selected and studied. In each interview, the mother was the respondent. This was because breast-feeding is uniquely a woman's experience, and women are considered crucial providers of childcare. It is also argued that mothers make over 80% of the health decisions in rural Kenya (Olenja, 1991).

3.5 Sampling techniques

3.5.0 Simple random sampling

In this study, the simple random sampling method was first used to select a location (North Yimbo) which was used as the study area. The location has two sub-locations each with 4719 and 1476 persons, respectively. With the help of the chief, five villages were selected and a total of 20 respondents interviewed in each village.

3.5.1 Purposeful sampling

In order to locate mothers, who were breast-feeding at the time of the interview, purposeful sampling strategy was used. In doing this, one respondent could be requested to identify another respondent with a breast-feeding baby.

3.6 Methods of data collection

This study employed both quantitative and qualitative methods of data collection.

3.6.0 Library research

Documentary materials, both published and unpublished, such as books, journals, dissertations, theses and seminar papers were reviewed. This method was useful in obtaining some basic data on the subject of study as well as the relevant theoretical framework. In addition, the researcher was able to identify some of the existing gaps related to breast-feeding.

3.6.1 Structured Interviews

The basic tool for data collection was a questionnaire containing both open and closed-ended questions so as to allow respondents to be flexible but restricted to relevant issues such as questions related to age, contraceptive use, gender and maternal attitudes or opinions about breast feeding. This method was found to be fast and the open-ended questions provided room for probing.

3.6.2 Focused group discussions

Three focused group discussions (FGDs) were held with ten mothers each. The participants were selected on the basis of age for homogeneity. Mothers' perceptions of the importance of breast feeding and other related issues such as, colostrum, weaning, taboos about breast feeding, and mixed feeding were discussed. This method yielded qualitative data that were used in filling in the gaps arising from the structured interviews.

3.6.3 Case Histories

Case histories involved five mothers. In using this method, the mother was allowed to narrate how she saw her own mother breast feeding her siblings and how she has breast fed her children. In cases where differences were noted, the mother was asked to give an explanation. Through this method, the mothers were given a chance to give their experiences and how this practice affects them as members of the female gender culture.

3.6.4 Direct observation

This method was employed throughout the study, and it served as a good link between knowledge and practice. It was used to obtain information on what actually happens other than what mothers said they did. Information on the general health of the family was also obtained through this method.

3.7 Methods of data analysis

Both qualitative and quantitative approaches were used in data analysis. In the quantitative approach, the study made use of the SPSS to come up with percentages and frequencies.

Qualitative data collected through FGDs, in-depth interviews and key informants were used in the description and discussion of mothers' perceptions about breast-feeding. Translated quotations were also used to help in presenting mothers' arguments about their feelings, opinions and perceptions about breast-feeding.

3.8 Problems encountered in the field

The researcher experienced some problems in the field, which threatened the process of data collection. For instance, respondents, especially key informants, were not always at home at the time the researcher visited them and, therefore, the interview had to be postponed to another day. The researcher left a message requesting for their availability for the next appointment.

Transport was another problem. The research vehicle could break down in the morning when the researcher had a very busy schedule. Sometimes, she could get onto public transport, then hire 'boda boda' services to the place of interview.

Some respondents thought that the researcher was a medical doctor and, therefore, requested for drugs, especially for eye and back problems. Such respondents were

disappointed when the researcher explained to them that biomedicine was not her area of specialization. Similarly, some respondents could actually 'close up' when asked why they breast-fed their infants, saying that the researcher was the one to advise them on the importance of breast-feeding. In such cases, the researcher explained to them that she was only a student and their knowledge was very vital to her study.

3.9 Limitations of the study

One of the perceived limitations of the study was language. This was a problem because the area of the study is predominantly occupied by dholuo speaking people, who either did not understand English or Kiswahili well, especially the mothers. However, an interpreter was carefully selected by the help of the Kenya –Danish health Research (KEDHR) field personnel. His responsibilities were to conduct field translation and recording of responses in dholuo.

3.10 Ethical considerations

Before asking questions, the researcher sought the permission of the respondents and assured them of the confidentiality of their responses by use of pseudonyms. The researcher also informed the respondents that their results of the study could be made available to them on request.

CHAPTER FOUR

DETERMINANTS OF BREAST FEEDING PRACTICES

4.0. INTRODUCTION

This chapter presents the research findings and it is divided into two parts. The first deals with the data related to the research variables, including the age of the mother, knowledge and use of contraceptives and the gender of the child whilst in the second part, mothers' perceptions of breast-feeding are presented.

4.1 Mother's age and breast-feeding

According to Table 4.1, there were 100 mothers in the sample and their ages ranged between 15 and 86 years. Specifically, the table shows that nearly half of the mothers interviewed tended to be of middle age, especially between ages 25-34 years and these constituted 52% of the total population sample. On the other hand, 26% of the informants were represented in the age group of 15-24 while those who were above 35 years constituted 22%.

Table 4.1: Age representation of the sample

Age group	Frequency	Percentage
15-24	26	26
25-34	52	52
35-and above	22	22
Total	100	100.00

The researcher wanted to know how many of each of the above mothers was still breast-feeding. The information shows that in the age group 15-24, twenty

one of the mothers were still breast feeding while five had stopped breast feeding.

Conversely, in the age group of 25-34, thirty-six were still breast-feeding while sixteen had stopped breast-feeding. Lastly, in the third age cohort, which is made up of those mothers who were above 35 years,, only twelve were still breast-feeding while ten had stopped.

All the respondents had had a child at one time or the other in their lifetime and their parity ranged from one child to eight. Specifically, the data show that fifty-six of the total respondents had parity of between one and three while forty-four had parity of between four and eight.

When all the respondents were asked how long they had breast fed their first child, 60% stated it was for more than one year. Twenty of these informants elaborated that this is because they were either not yet pregnant or they had received a lot of support from their mothers-in-law in the form of attending to domestic chores. However, forty other informants said it just happened that they breast-fed for a period of one year.

Conversely, 28% of the informants were still breast-feeding because for nine of them, the baby was still small (between 2-4 months). Three informants stated that it was their pleasure to give the baby breast milk while sixteen suggested that they will stop once they became pregnant. Furthermore, the data clearly indicate that 9% of the informants breast-fed for less than two months. Specifically, one of the informants clarified that she had contracted a disease that left her too weak to breast-feed. On the other hand, another

mother within the age cohort of 15-24 years and with one child stated that she could only breast-feed for less than two months because she did not have sufficient milk. A further analysis of the information shows that one of the informants within the 15-24 age cohort and with three children, had given birth to twins and, therefore, she did not have adequate breast-milk to give to both babies. Lastly, it is clear that 3% of the informants all above thirty five years, did not remember how long they had breast fed their children because it had been a long time since they had had their first child and their memory was failing.

This information shows that the informants in our sample still attach a lot of importance to breast-feeding practices as exemplified by 60% of the mothers who breast fed for more than one year. The information further shows that in the cultural beliefs of these informants there is a close relationship with regard to the length of breast-feeding, the health status of the mother, quality and quantity of milk as well as the onset of another pregnancy as exemplified in the following narratives.

Case # 1

Adhiambo (not her real name) is 27 years old. She has 2 sons, and a daughter who is only 8 months and a survivor of a twin birth. She breast-fed each of her two sons for 14 months. This length of breast-feeding was determined by another pregnancy because she had to stop breast-feeding once she became pregnant to avoid jealousy between the growing foetus and the breast-feeding baby. In addition, she believes that once a woman becomes pregnant the milk becomes bad and could cause diarrhea to the breast-feeding baby.

Case # 2

Atieno (not her real name) is 26 years old and has five sons. She is a shopkeeper and she is married to a local administrator. She breast fed each of her sons for one year, while introducing supplements at the age of one month because she did not have sufficient breast milk. Atieno attributes her insufficient milk supply to too much work in the home and in the shop while her husband attends to administrative issues, inadequate food and a poor diet. She receives inadequate food supply because she only eats ugali and vegetables without meat. She cannot afford meat, fish, eggs and chicken because these are too expensive for her. Similarly, she cannot afford milk for tea.

Breast feeding practices depend on other circumstances surrounding the mother, as the following life histories reveal.

Case #3

Akinyi (not her real name) is 27 years old with two sons. She is the first born in a family of two. She was breast fed for one year while her brother was breast fed for three years. This was because her mother contracted a disease that led to hospitalization and there-fore had to stop breast feeding her. Akinyi's brother was breast-fed for 3 years because her mother was well and there was no other child to interfere with the breast-feeding duration.

This life history illustrates that the physical health of the mother is important. Akinyi's mother could not continue breast-feeding her because of her own sickness, which led to her being hospitalized, thus, rendering her weak and, subsequently, incapacitated. On the other hand, Akinyi's brother was able to breast feed for three years because there was no other interfering child. The physical health of the mother and pregnancy are, thus, major factors in determining how long a baby will be breast-fed.

Case #4

Atieno (not her real name) is 26 years old and has five sons. She used formulas for her first two sons because by then the family was small and she operated a local beer brewing business which earned her a lot of money unlike the shop keeping business she has today. She does not use infant formula anymore since it is expensive and the family budget has gone up. Atieno feels breast-feeding is a bother since it depletes her of any strength she has, therefore, leaving her exhausted.

The above life history brings out the question of the family size and maternal health. For a mother to be able to breast-feed, she has to be healthy and properly fed. It is often the case that small children become malnourished when their mothers are sick. On the other hand, a mother may find herself stretched by the size of the family such that her own feeding becomes poor as she 'worries' about what her family shall eat.

Case # 5

Adhiambo (not her real name) is 27 years old. For Adhiambo, breast-feeding is a good and enjoyable practice since, through it, both the mother and her baby are in contact and it makes the baby healthy. However, she is quick to mention that this is only possible if the mother's nutritional status is good.

The above life history points out that a mother's beliefs about her own physiology determines how long she breast feeds as this mother believed that breast milk is meant for one baby.

Case # 6

Aluoch (not her real name) is 30 years old. She is from a family of seven, but cannot remember how each of them was breast-fed, as she has not taken time to inquire from her mother. She has two living girls and one boy. She breast fed each of these children for approximately 14 months, but introduced supplements at the age of one month for her first two children due to the availability of

Lactogen and Cerelac. The children liked the infant formula and, therefore, Aluoch felt it was good for them. For her last born who was a girl, she introduced porridge and cow milk as supplements at two months because when she tried at one month, the baby rejected it. Aluoch attributes the difference in the types of supplements to her access to them, both in regard to physical and economic accessibility. She was living in Nakuru with her husband when her first two children were born, but moved into the village where she could not access Lactogen and also she did not have the money. According to Aluoch, breast-feeding is very important for the baby, but when supplemented with a formula, the baby grows up to be strong and healthy.

The above life history points out the effect of supplements on breast-feeding. This mother believes that supplements especially infant formula is as good as breast milk and, therefore, introduced it early for her first two children. The affordability of the infant formula also determines whether the mother introduces them or not. For Aluoch, she almost substituted formula for breast milk. Furthermore, it tasted good to the children who started preferring it to breast-milk.

In the focus group discussions mothers between 15 and 24 years of age had a consensus that a child should be breast-fed for a period of at least one year or more. This is because they have seen children who have been breast-fed for one year or more show signs of good health. In addition, they argued that the medical personnel at the clinic do inform them that prolonged breast-feeding improves the baby's health. Furthermore, informants stated that they also know that if they breast-feed, the children will grow up fast and the skin will be smooth, thus, indicating an absence of scabies.

According to the mothers within the 25-34-age bracket, breast-feeding should last as long as 3 years. This is primarily because, at such an age, the child is old enough to have a follower, as one informant suggested. In addition, such a child is old enough to be left with other children, although some informants stated that the mother is probably expectant by the time a child reaches 3 years.

Lastly, those women who were above 35 years stated the following in Dholuo '*onge joma puonjoga mine dhodho, mano en wach Nyasaye*' that is, breast-feeding is a natural act taught to mothers by God. This natural act is then reinforced by cultural norms expecting all women to breast-feed their young ones. This group of women was of the opinion that children should be breast fed for three years by which time they would be old enough to eat other meals such as *ugali* and sweet potatoes. Moreover, these informants stated that by this age the mother, if still under menarche would most probably be expecting another baby and, thus, breast-feeding should stop to avoid jealousy between the fetus and the breast-feeding child.

The data also show that most mothers (76%) mentioned that they breast fed their babies on demand before the introduction of supplements while 24% indicated that they breast fed on schedule. These mothers explained that this scheduling was not at designated times, but at least it was between three and five times a day. Specifically, it was explained that such mothers do not breast their child any time but only when they are available and at home. It was later determined that this schedule was as a result of the engagement of some of these women in small businesses. Therefore, this made it impractical to breast-

feed the children as often as possible. Conversely, some women were scheduling breast-feeding because of their desire to see the children eat other foods as the following case study shows,

Case # 7

Akinyi breast-fed each of her two sons for 15 months due to the nature of her occupation. She is a businesswoman, trading in second-hand clothes. She further says that her husband, who is a fisherman, spends most of his income on alcohol. She introduced supplements as early as three weeks because she wanted her children to get accustomed to other foods early enough since she does not have the time to breast feed them on demand and exclusively. When asked about her feelings concerning breast-feeding, Akinyi was quick to mention that breast milk is good for the baby since it ensures that the baby gets all the vitamins. However, she sees exclusive breast-feeding for 4-6 months and breast feeding on demand, as an activity for idlers. She posed this question 'ka aketho thuolo gi dhodho nyathi eot, nyithinda mamoko go tobiro chamo ang'o?' (If I waste time breast-feeding, what will my other children eat?), to emphasize the need for scheduling breast-feeding in order to cope with other demands.

Akinyi's sentiments about breast-feeding, specifically when she refers to breast-feeding as a time wasting activity, indicates a mother who is concerned about her child's health, but seems to have too much on her hands. This life history indicates that the age of the mother is not the major contributor to the breast-feeding practice but it is an underplay of many other factors such as occupation. It also indicates that breast-feeding, just as any cultural practice is bound to change.

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Concerning breast feeding on demand, the information shows that there were nine mothers between 15 and 24 years of age, who were breast feeding on demand, that is, when the baby cries. This is because they are always within a distance where they can hear the baby cry or the *jopidi* (one taking care of the baby) can bring the baby to the mother when she/he cries. These informants similarly stated that they sometimes tie the baby on the back when carrying out domestic chores and thus they are able to breast-feed as the baby demands. On the other hand, if the baby was in the house, and the mother was in the garden, an older baby would take the baby to the mother so that she could breast-feed her/him.

The data also indicate that one informant had introduced schedule breast-feeding in the morning and in the evening because she felt the baby, being three months, was old enough to eat other foods.

The mothers within the 25-34-age bracket discussed and agreed that breast-feeding should be on schedule once the child had started eating other foods apart from breast milk. In fact, two of the group discussants had started breast-feeding their children who were less than four months on schedule. This is because these informants had to go to school to teach and, thus, they could not afford breast-feeding on demand because their schools were quite far away from their homes. They, however, explained that if the school was near their residences they could rush home to breast-feed.

In their discussion, informants in the age bracket 35 years old and above complained about young mothers who venture into business, while leaving their infants to be fed on other foods by the caretakers or 'jopidi'. According to such informants, this should not be the case, since it causes unhappiness and poor health amongst infants. Expressing sentiments about young women, these mothers had these to say in Dholuo-

'mama ne en jarateng to sani en odiero' (in the old days, a mother was an African, but now, she is a European).

This implies that young mothers at present have moved away from the domestic sphere into the public one in search of employment, leaving their child (ren) under the care of a helper. To these focus group discussants, breast milk is made by God for the baby and should, thus, be given to the baby at all times as the baby demands.

4.1.1 Mother's age, breast-feeding and education

Informants were asked to state their educational status and an analysis of the data indicates that a majority of those between the age cohort of 15-24 had attained standard eight education level (n=18). Conversely, six of these informants had attained between Standards 1-4 while only 2 had reached college or higher educational levels. On the other hand, those informants in the age group 25-34 (n=52) who had standard eight education level were thirty nine, between Standards 1-4 were eight, those without any formal education were two while only three had attained high school or tertiary level of education.

Lastly, the data indicate that in the age group of 35 and above years, there were no informants who had reached standard eight or attained tertiary level of education.

However, eight of these informants stated that they did not attend any school, while fourteen stated that they reached between standards one to four.

These data, therefore, indicate that although the informants were not highly educated, a majority of them were nonetheless literate. These data indicate that for this sample of women, education had no little to do with the length of breast feeding.

4.1.2 Mother's Age, Breast feeding, and Occupation.

Table 4.2 below gives a breakdown of the percentages of the mothers and their occupations. This table clearly indicates that most of the women (n=76) were subsistence farmers. This same group of women was constituted of those who engaged in household chores (25%), making ropes (15%) and attending to their farming activities (36%). The information shows that some of the crops which are grown by the informants include maize, millet, cassava, bananas and sweet potatoes. On the other hand, the table similarly portrays that 23% of these informants were engaged in small-scale businesses outside their homes. The businesses consists of, for example, selling fish, papaws and vegetables (17%), buying and selling second-hand clothes (1%), running food kiosks (2%) as well as buying and selling maize (1%) and ropes (2%). Lastly, clinical officers and Traditional Birth Attendants (TBAs) formed one percent.

Table 4.2 Occupation of the sample

Occupation	Percentage
Subsistence Activities	76
- Household and farm activities	25
- Farming, making and selling ropes	15
- Farming activities	36
Small businesses	23
- Buying and selling fish/papaws/vegetables	17
- Buying and selling second hand clothes	1
- Running food kiosks	2
- Buying and selling maize	1
- buying and selling ropes	2
Clinical officers	1
Total	100

These data indicate that those mothers who are involved in small businesses (n=23) breast fed for shorter periods than those in subsistence activities. Thus occupation had an effect on the length of breast feeding.

4.1.3 Mother's age, Breast-feeding and Food Supplements

The researcher sought to find out the age at which these informants introduce food supplements to breast-feeding babies. The information shows that the introduction of supplements drew different responses from the age groups in the sample. For instance, 28 of them introduced supplements for their children before they were three months old. The main reasons for this early supplementation include lack of breast milk and demands from their businesses as some had to be away so as to attend to these businesses. Other informants stated that they had to go back to employment after maternity leave, while others introduced supplements because of advice from friends. On the other hand, 52 of the informants introduced supplements at the age of four months because by this time the baby's constant demand for food was not being adequately met by breast milk alone.

Some of the other respondents suggested that the baby was old enough to eat other foods and to some it was the right age to introduce supplements. However, 20 of the informants introduced supplements at the age of six months. The reasons given by some of these informants included the fact that the baby had developed complications after birth and thus needed to breast-feed for this long while others claimed that the baby did not simply want to eat other foods or take other drinks apart from breast milk.

The informants in the age group of 15-24 years felt that supplements should be introduced as early as two months. The common reasons given for this early supplementation are "lack of milk, the baby is old enough to eat other foods, sickness and the desire by the mothers to see their children grow up faster and healthier." While six respondents mentioned that supplementation should be at two months because by that age the baby is old enough to receive other foods, the rest of the informants mentioned four months. In particular, such informants argued that by this age the baby could be left under the care of other non-school going children to administer other foods. Nonetheless, all respondents in this age bracket did not perceive the giving of other liquids such as tea, glucose solution, coffee and soups, apart from porridge and *ugali*, as the introduction of supplements. This is because these informants believed that the giving of such liquids was one way of ensuring that the baby grows up strong, faster and healthier. Specifically, the introduction of supplements or weaning, according to these discussants, actually begins with the introduction of porridge and *ugali* in the baby's diet.

However, the researcher observed that mixed-feeding was actually a common practice among mothers in the 15-24-age bracket and an analysis of the data indicates that these mixed foods include tea, coffee, glucose and cow milk. Asked why they introduce such mixed foods as early as one week of a child's life, some respondents said that it was due to insufficient breast milk. In addition, others stated that they had seen other women doing so and also that the caretakers give these foods to babies when the mothers are away.

The discussants in the 25-34 age group claimed that supplements should be introduced at the age of six months. The major reasons given for this is that by this time, the baby's system is mature enough to take in other foods, as well as the fact that the baby is old enough to be left under the care of others and, thus, can be given other foods by them. In addition, they stated that, according to Luo traditions, women are supposed to breast-feed their children until they experience the return of their menses, which, according to these women, is at six months after a previous birth.

Mothers comprising the 35 years and above age group stated that supplements should be introduced at the age of six months. This is because only what God has designed, that is, breast milk should be given to the baby until she/he is old enough to eat other foods at the age of six months. In case the mother is incapacitated due to illness and, therefore, unable to breast feed, then milk from cows, goats and sheep, should be given to infants.

4.2. Contraceptive knowledge, use and breast-feeding

This study also sought to find out information concerning the knowledge that the informants have about contraceptive use and its impact on breast-feeding. The data indicate that modern contraceptives are known by mothers in Usigu and 47% of the sample had at one time or other used pills (n=9) or depo provera shots (n=38). Informants who were on the shots stated that they preferred shots because they do not have to remember to take pills. Fifty three percent used natural methods of family planning, such as the rhythm commonly known to the mothers as the calendar method. The other informants attributed their family planning methods to God's plan. Twenty-seven informants mainly from the age groups of 15-24 and 25- 34 attributed their non-use of artificial methods of contraception to ignorance since a majority of the informants do not know which ones were available. Further analysis of the data revealed that these informants were of the high parity and involved in subsistence activities. However, eighteen of the informants from varied age groups stated that their husbands could not allow them to use modern contraceptives. Some of the informants indicated that their husbands did not allow them to use the modern contraceptives. Asked why their husbands discouraged them, some thought that it was due to ignorance, which breeds a lot of suspicion from them causing them to discourage their wives from using modern contraceptives. Other informants mentioned that their husbands discouraged them from using contraceptives because these could lead to infertility in their wives. Twelve respondents within the 15-24 age group claimed that they have seen other women who have used them and who have had problems. The information indicates that such problems include fainting, 'drying up of the breasts' and staying for long before becoming

pregnant again even when they so desire to have a baby. When the 47% of the informants were asked whether their use of contraceptives had any effect on breast milk, nine of them said that it had reduced. However, thirty-eight of the informants complained of other side effects such as backache, heavy bleeding, and headaches, which they did not relate to the quality and quantity of breast milk. Instead, these informants further complained that such side-effects left them too weak and frail to breast-feed

The nine mothers (18.9%) who mentioned milk reduction due to contraceptive use had been using the pill while thirty-eight were using the depo provera shots or injections. After seeking advice from the health personnel, the nine mothers who were on the pill began using depo provera shots which did not affect the milk quality and quantity but had instead led to an increase in menstrual flow. Despite the increase in menstrual flow, these mothers were at the time of the study still using the depo provera shots. Also at the time of the study, only seven of the total 47 using contraception were currently breast-feeding.

Although one of the reasons for introducing supplements before 3 months of a child's life was because of 'lack of milk', the respondents did not associate it with contraceptive use. They instead associated it with their own poor nutrition, desire to see the children grow up faster and doing what other mothers did. Given that a small percentage (18.9%) of the sample were using pills and did not associate them with breast milk it is not conclusive to say that mothers who use contraceptives breast feed for shorter durations.

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The information further reveals that a small number of mothers (n=7) who are currently breast-feeding were using modern contraceptives during the time of this study. This is because those who do not use contraceptives while breast-feeding, say it is not compatible with breast-feeding since it leads to milk clot. Similarly, other informants stated that they are not in danger of conception as long as they are still breast-feeding, while others commented that the side-effects of fainting, dizziness and nausea do affect their ability to breast-feed their children.

From the focus group discussions, it appears that the informants in the 15-24-age bracket were using the depo provera shots and felt that it was safe for them. Using this method assured them of safety from pregnancy. Although six of them said that they felt dizzy and nose bled since they started using this method, they felt they could not change to natural methods because these were not reliable. The informants in the 25 –34 age cohort had different opinions concerning contraceptives. For example, three of the women were breast-feeding at the time of the study and were using the depo provera shots. Specifically, these women did not have any problems apart from a reduction in breast milk. These women elaborated that they had become pregnant soon after their first child since they were not using any contraceptive method. Therefore, instead of risking any an undesired pregnancy again, they opted for the depo provera injections. The other seven informants claimed that they did use contraceptives, but they believed not as long as they were breast-feeding exclusively (until the baby was six months old). This is because these informants believed that it is difficult to have menses before the baby is six months old.

These informants also claimed that if they used contraceptives while breast-feeding, the breast-milk becomes 'watery,' and, thus, not useful for the baby's health.

The informants in the third Focus Group Discussion felt that modern methods of contraceptives were not good for women because they made women infertile. In fact, it was explained that infertility in women meant giving birth to two children only. These women furthermore suggested that nowadays women were not able to bear as many children as in the old days because of family planning. They gave examples of women who had been using contraceptives but when they needed to become pregnant, they were not able to because contraceptives had destroyed their natural house of babies "or the uterus. However, these women felt that the use of the natural methods was safe for women as well as their children. This is because they felt that the use of contraceptives led to complicated deliveries. To them, God is able to regulate the birth spacing for women if they just give him control.

4.3 Child's gender and breast-feeding

The data show that 69% of the informants from all the age groups stated that boys breast-feed for a relatively longer duration than girls. Thirteen were from the age bracket of 15-24, thirty-seven were of the age group of 25-34, and the remaining seventeen from the age group of 35 and above. The 69% of the informants explained that boys breast feed for long compared to girls because they have 'big stomachs'. In addition, the mothers complained that while breast feeding, boys tend to suckle too much causing fatigue and dizziness to the mother. Due to this fact, twenty six of the 69%, mainly from the age

group of 15-24 and from the age group 25-34, stated that they stop boys from breast-feeding (at one feeding) earlier. Three of the informants in the 15-24 age group were of high parity while ten were of low parity. In the age group of 25-34, five were of low parity while eight were of high parity. These informants further estimated that boys take about 5 minutes than girls who take about 8 minutes. They further said that for this reason they introduce supplements earlier for boys, at a mean of three months, than for girls, at a mean of three and half months. This would then enable the boys to be satisfied due to their big stomachs, thus, needing more food intake.

Thirty-one percent of the informants, however, mentioned that both boys and girls breast feed for an equal overall duration. These informants stated that both boys and girls do stop breast-feeding completely at the same period of time. Of these 31%, thirteen were from the age group of 15-24, fifteen from the age group of 25-34 and five from the age group of 35 and above.

When asked about gender preferences in relation to breast-feeding, members of the different focus group discussions gave different answers. For example, those informants in the first Focus Group Discussion stated that they breast-fed both boys and girls for an equal duration of one and half years. They felt that a child is a child and, thus, it should be breast-fed with no discrimination. On the other hand, informants in the second Focus Group Discussion said that they breast-feed boys for a longer duration than girls because boys tend to grow more slowly than girls do. In addition, four of the discussants mentioned that even at one feeding, they breast-feed boys longer than girls because boys tend to have 'big stomachs'. However, in the third Focus Group Discussion, there were

preferential breast-feeding practices concerning the two sexes of the children. A baby boy is breast-fed for longer than a baby girl is. This length varied from days to months. Also, different animals were assigned to each of the sexes in case the mother was unable to breast-feed. They explained that a sheep is assigned to a baby girl to provide milk for her, while a goat is assigned to a baby boy. Asked why there was a difference in the milk sources, these respondents attributed it to the mischievous nature of boys and the docile nature of girls. On the other hand, in cases of maternal death, the infant could be breast fed by a paternal grandmother who no longer has sexual relations. If the grandmother is still having sexual intercourse, then she should not breast feed the infant for fear of causing 'chira' (extreme thinness caused by transgression of principles governing sexuality). Asked whether grandmothers still breast-feed their grandchildren, these respondents answered in the affirmative but added that it is to a limited extent, since many children are nowadays taken to hospitals for nursing in case their mothers die. This decline in the practice could be because of discouraging the breast feeding of another woman's baby by the clinical officers as well as a looseness in kinship ties which was once the basis for such a practice.

In the opinion of these informants, the child's gender did matter in the overall duration of breast-feeding. Nonetheless, these informants suggested that boys take a longer duration to stop breast feeding completely, that is, until they are 3 years old. On the other hand, girls tend to stop breast feeding earlier, that is, about 3 months earlier than boys, or until the mother is pregnant again. In addition, the boys tend to cling to the breast even when

they are old enough to be stopped by the mother while the girl will leave on their own accord.

These data indicate that women within the age groups of 15-24 do not show any preferential breast-feeding practices towards their children and, thus, breast-feed each of the children equally. Also, they would opt that their children be given cow milk in case they are unable to breast-feed. The informants in the other two age groups showed some preferential breast feeding practices, that is, longer overall duration for boys than girls, because to them boys need to be fed well in order to grow up healthy. They further explained that if the boys are not breast-fed longer than the girls, they become weak and sickly.

4.4 Mother's perceptions of breast-feeding

All respondents had at one time or the other breast-fed their children or they were still breast-feeding. Asked why they breast fed their children, some mothers had this to say: "breast milk is the only food for the baby, it prevents illness, it makes the baby happy, the brain develops well, and it makes the mother forget her problems for a while". Although most mothers did breast-feed their infants, and they understood the importance of the practice for the baby, they differed on other related practices such as the time before initiating breast-feeding, whether to give or not to give colostrum and when to introduce supplements. While discussing about colostrum, the mothers in the 15-24-age bracket stated that they had not given it to their babies because they considered it dirty due to its yellowish colour. They had similarly learnt from other women that it was bad as it causes stomach upsets and eventually diarrhoea. In case the mother for one reason or the other

cannot breast feed her baby, these mothers indicated that the hospital was the ideal place for such children to be well nursed. Asked whether they knew of a particular case, they all declined. However, some said that, they had seen such children in Bondo District Hospital and in Kisumu Referral Hospital.

These mothers introduce supplements for their infants at a mean age of 3 months.

Although they are able to make decisions on how and when to breast-feed (for instance, the one who introduced schedule), they still rely on advice from other women on how to breast-feed, for example, the introduction of mixed feeding and the giving of colostrum.

The women in the 25-34-age bracket expressed similar sentiments about colostrum as those of the discussants in the 15-24-age cohort.

According to the accounts of two key informants, the importance of breast-feeding cannot be over emphasised among the Luo of Usigu Division. In fact, these two informants categorically stated that breast-feeding is acceptable to almost all the mothers in the study region. Indeed, under normal circumstances, breast-feeding always starts immediately a child is born. However, a delay in initiating breast-feeding occasionally comes about as a result of the mother having infections of the breast, infections in the baby's mouth, maternal fatigue after labour and lack of breast milk.

According to interview data from elderly informants, breast-feeding is still regarded as a very crucial practice. Therefore, it is still carried out with a lot of care and caution by the women in Usigu Division. These informants added that all breast-feeding mothers usually carry out this practice because they are aware that the lives of their babies depend on it.

These elderly informants also suggested that once a baby is born, it is put on the breast immediately except when the mother is sick, she is tired after labour, or she has blocked nipples. After initiating breast-feeding, the mother is culturally required to continue breast feeding on demand and unsupplemented for 5 months. The data further show that at the age of 6 months, food supplements can be introduced gradually. These supplements may consist of porridge, made out of sorghum flour, ground small fish and cow milk. Subsequent foods such as fruits and beans are also then introduced slowly. This is because by this time, the child is old enough to eat other foods.

In the traditional past, breast-feeding on demand was made possible by the sexual division of labour. Men were responsible for hunting, fishing, herding, and other activities outside the home, while women did household chores, including, fetching water and firewood as well as taking care of the home. This gender division of labour ensured that women were always available whenever their babies cried for food. However, once a baby was old enough to eat other foods, the mother could be allowed to conduct work outside the home, for instance, business, whenever necessary.

There were, and still are, very few cases of women who for one reason or another could, and can, not breast-feed. In such cases, today, as in the past, the help of a diviner is sought to diagnose and treat the malady. If the divination reveals that the problem is from the woman's lineage, (which in most situations was the case) then she is sent back to her people to seek treatment. In case the treatment fails, a more powerful medicine man is

sought until the malady is corrected. If the malady cannot be treated, the baby is fed on alternative milk such as cow or goat milk. However, such women are considered unfortunate and they draw sympathy from the community. The treatment is the same in cases where the divination reveals that the source of the malady is from the husband's lineage, only that in this case, the man is not sent back to his people since he already lives among them.

The study also sought information from the biomedical personnel in the research site. An analysis of the data indicates that these informants stated that breast milk is the best food for an infant, because it contains a balanced diet of water, proteins, vitamins, carbohydrates, and it is always at the right temperature. These informants added that a baby who is not breast fed properly would most likely experience retarded growth and which may result into weight loss. The other complications may include opportunistic infections, low IQ, inactivity, depression, skin infections and anemia.

Furthermore, these informants were of the opinion that breast milk is actually cheap compared to infant formulas since the mother does not need money to buy her own breast milk which results from good nutrition.

According to these informants, if a baby is not able or allowed suckling within the first 72 hours after birth, then the mother experiences a failure in 'a let down reflex' This is, however, common among the primers than mothers with parity of more than one. There was a general agreement among the biomedical staff that a baby who, for one reason or the other, cannot breast feed should be fed on cow milk that has been diluted with water in

the ratio of 1:1. In fact, these informants stated that they have been discouraging mothers to breast feed another baby apart from one's own, due to HIV/AIDS pandemic. It is also clear that biomedical personnel in the research area have been discouraging mothers from using infant formula. This is because, according to these informants, its preservatives could easily be toxic to the baby. Also, they indicated that from their own experiences and observations, infant formula is too expensive for a majority of the mothers in Usigu Division. Nonetheless, this study found that about 10% of the informants in our sample were using infant formula. Three of these respondents were from the 15-24-age bracket and had all completed Standard eight level of education. Two of them had two children each while the other had one child. The other seven were from the age group of 25-34 years. Three of these had completed standard eight while two had completed college while two had not been to school. All these seven respondents had parity of four. The reasons given by these respondents for using formulas included affordability by their husbands, encouragement from their friends, and that the babies did not want to breast-feed.

When old women were asked about their perceptions concerning infant formula, they saw it as being bad and dangerous for the baby because no one knows about its source. They, however, expressed concern on how mothers these days mix feed their infants. In fact, they added that it must be because of advice from hospital staff who, they said, are promoting a *mzungu* culture. Specifically, young mothers were accused of neglecting their primary responsibility of breast-feeding because they perceive it as time consuming and leisure denying activity.

On the other hand, the data show that the CHWs and TBAs in the sample stated that they always advise mothers to give colostrum to their newborn babies. This is because from their training in maternal and child health courses, they have come to learn that colostrum contains antibodies. However, these informants added that the mothers in Usigu division do not give it to their babies because it is perceived as being dirty, thick and, therefore, a cause of diarrhoea.

Also the researcher observed that mothers in the study area do practice mix feeding of their infants despite their awareness of when to introduce supplements. Among the reasons as to why mixed-feeding is common among these mothers include: availability of these foods, advice from other mothers, ignorance about the nutritional value of these foods and a desire to see their children grow up strong and healthy.

This study found that there are a number of restrictions, which are imposed on breast-feeding mothers. For instance, once a woman becomes pregnant, she has to stop breast feeding immediately, or else the baby will diarrhoea and die out of a condition referred to as 'chira'. Also a lactating mother is not allowed to have sexual intercourse with another man apart from her husband. Failure to observe this leads to 'chira' and eventual death of the baby. However, in the event that a lactating mother breaks such a taboo, she should stop holding and breast feeding her baby until special herbs are prepared for her to wash herself with.

Similarly, breast-feeding women are not supposed to fight, if they do, their babies may die from 'chira'. However, should such women engage in a fight, then both of them must stop breast feeding their babies until they eat a special meal of reconciliation prepared by an old respected woman in the community. On the other hand, when a woman delivers, a polygynous husband should perform a 'kwer mar nyathi' rite after 3 days for a baby girl and 4 days for a baby boy. This rite literally translates to 'jumping over the baby' but it also means having sexual intercourse with the 'nyawiwo' (a woman who has delivered), before resuming sexual intercourse with the other wives. It was expected that failure to perform this rite, results into 'chira' as it would be a transgression of principles governing sexuality and eventually the death of the baby. If the husband is monogamous, then the rite is called "luwotiend nyathi" which translates into "following the baby's foot". The rules governing this rite are the same as those of the "kwer mar nyathi" explained above.

A majority of the informants moreover stated that a breast-feeding baby should not be taken out of the house before sunrise and after sunset. This is because it is believed that mothers who have sick children often consult diviners who give them herbs to wash their children and pour the remains on the pathways. If a woman with a breast-feeding baby crosses over such a place, she and her baby can contract the disease. It is believed that these herbs are more powerful before sunrise and after sunset.

In addition, this study discovered that breast-feeding mothers also have to observe food taboos. For instance, a breast-feeding woman should not eat cowpeas because this can lead to the disappearance of breast milk. A breast feeding woman should also avoid

mahanya (that is, maize cooked without beans) and black tea to curb milk disappearance. However, she should eat well in order to regain strength and have enough milk for her infant as it is said, *dhako madhodho nyathi chamo chiemo makar ji ariyo* which translates to, a breast feeding woman eats for two people.

In conclusion, the old women in our sample population felt that times have changed and breast-feeding as a practice is also bound to change. For instance, these informants stated that there are many cases of mothers who have to take care of themselves and their children today without the support of a husband. The same women also have to get into business at a very early age for the baby and thus the baby is left under the care of non-school age children. One woman attributed this single parenting by mothers to a shortage of responsible men who are willing to get married and settle down in family life.

This chapter shows that breast-feeding practices depend on several factors. The age of the mother, her knowledge and use or non use of contraceptives, the gender of the child, and her perceptions of the practice all play a role in determining how a mother will breast her baby. In this chapter, there was an increasing length of breast-feeding with increasing age. However, there was no difference in the length of breast-feeding between the age groups of 25-34 and the 35 years and above. A majority of the respondents (n=73) in the study area were aware of the contraceptives in the market but this knowledge did not transform into use (n=47) due to various reasons, which ranged from ignorance of the side effects, misinformation on the side effects and discouragement from friends and colleagues. For those who were using modern contraceptives, they experienced difficulties in breast-

feeding resulting into fatigue, fainting, and heavy menstrual flow. Concerning the gender of the child, some of the informants showed preference towards the boy child while several mothers in the 15-24-age bracket did not show any preference. Mother's perceptions of breast feeding practice depended on the culture, their occupation and their own worldview. The study showed that breast-feeding practices are undergoing change just as any other cultural practice.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter discusses and gives conclusions of the findings. It is divided into five sections. In the first four, each research question is discussed in relation to the findings and other works done by various individuals and organizations. The strengths and weaknesses of the theory in explaining the findings are also discussed. In the last section, recommendations are suggested.

5.1 Discussion

5.1.1 Does the age of the mother influence breast-feeding practices?

This study has revealed that there are differences between young and old mothers in regard to breast feeding practices. For instance, there is a variation in the frequency of breast-feeding. This is because young mothers, tend to follow the advice from their mothers-in-law and, thus, fear ridicule for not taking care of the baby well. Evident from the preceding chapter is the fact that young mothers complain about lack of breast milk. This is why they introduce supplements earlier. The duration of breast-feeding is initiated early at the birth of the first child and remains fairly constant for subsequent births. Exceptions to this pattern may arise for example when the baby is the last born (no other

pregnancy) and it is, therefore, breast-fed for a longer period than the rest of the children. According to the Luo in the study area, breast-feeding comes to a halt once a mother becomes pregnant. Young mothers, unaware of the end of lactation amenorrhoea and being sexually active, become pregnant early and, therefore, breast-feed for shorter durations than older mothers who, I would say, have gained experience on roughly when lactation amenorrhoea ceases and are less sexually active.

The length of the birth interval plays a part in determining breast-feeding duration. Many women in the study area stop to breast feed once they become pregnant. This would account, in part, for the shorter durations of breast-feeding among young mothers. Therefore, breast-feeding duration increases with an increase in maternal age

Okwayo (1992) and Sempebwa (1981) indicated that there is an increase in breast-feeding duration with age, although they treated maternal age and parity as almost interchangeable variables. From this study however, age and parity have been treated as independent variables. The higher the age of the mother does not necessarily imply high parity.

This study also revealed that young mothers introduced supplements as early as one week of a child's life than older mothers. The reasons given for this early supplementation include 'lack of milk' and or desire to see their babies grow faster and fat. This 'lack of milk' can be attributed to anxiety by the young mother about her new status as a mother. Otieno (1989) attributed the positive relationship of age and breast feeding to education. According to his study, young mothers are likely to be more educated as compared to the older ones. According to this study, young mothers were more educated than the older

mothers. However, this did not have significant effect on the length of breast feeding as indicated in the previous chapter.

5.1.2 Does contraceptive use affect breast-feeding duration?

The study also indicated that more than half of the mothers in the area were using the rhythm method of natural contraception. Those who use artificial contraceptives complained of other side effects other than the reduction, quality and quantity of breast milk. Lack of milk was a common complaint among mothers who were on the pill and those who were not on the pill. However, a few mothers said that they had changed to 'depo provera' shots once they learnt that the 'pill' led to breast milk loss.

Although, according to McCann *et al.* (1984) there is an association between contraceptive use and breast-feeding, few women in Usigu Division mentioned such an effect. This could partly be due to the small number using contraceptives and partly due to the ignorance of the mothers on the potential effects of contraceptives on breast-feeding. This study shares the conclusion arrived at by USAID /Wellstart International (1984) in a research conducted in Kibungo and Gitarama Provinces in Rwanda which stated that few women mentioned the issue of the potential effects of birth control pills and other chemical contraceptives on lactation.

5.1.3 Does the child's gender determine breast-feeding practices?

This study revealed that there are differences in the way boys and girls are breast-fed. Most respondents mentioned that boys need more food than girls because they have 'big stomachs'. They also expressed their knowledge of how proper feeding of children affects their overall development later on in life. Poor feeding, for example, causes retarded growth. In spite of the general agreement that boys eat more food than girls, older women saw this as a reason to breast-feed boys for longer durations than girls. On the other hand, young women saw this as a reason to introduce supplements earlier for boys than for girls. A majority of the respondents denied the fact that boys are more valued than girls. The results indicate that a great majority of the respondents regard and value boys and girls equally, especially in regard to breast-feeding. However, there were a few of them who still place a higher value on boys and admitted that boys should be breast fed for long. This implies that changes are occurring in people's traditional values and beliefs such that children are treated equally irrespective of their sex, and specifically, as regards nutrition. It is worth noting that young mothers tend to introduce supplements early, but it is even more early for boys than girls, although there is no variation the overall duration.

5.1.4 Do mothers' perceptions of breast-feeding affect the practice?

This study revealed that mothers' perceptions of breast feeding play a vital role in determining how children are breast-fed. Although the Ministry of Health, through Maternal and Child Clinics and through the media, have launched a campaign for breast-feeding, and indeed a true Luo woman is expected to breast-feed, mothers in their day to day activities choose one method of feeding, amount of feeding and duration of feeding

for their infants based on several considerations. Most mothers in the study area believed that maternal nutrition was important in breast milk production. This implies that they need special foods after delivery, for instance, to be able to breast-feed successfully. They also believe that mixed feeding was appropriate if their children were to grow up fast and healthy.

Mothers perceived pregnancy as a dangerous state which caused envy between the unborn and the breast-feeding child (ren). They also believed that pregnancy causes breast milk to be bad and this could, therefore, cause diarrhoea to the suckling baby. Inconvenience was also mentioned by one mother who felt that breast-feeding was time consuming, burdensome and, therefore, an activity for idlers.

Nearly all mothers understood the importance of breast-feeding but they felt that successful breast-feeding depends on the amount of breast milk a mother can produce. A majority of them believed it was a gift from God to have enough breast milk. Such a perception contrasts with the findings of the UN (1987) which revealed that the amount of breast milk produced depends more upon the frequency, duration and intensity of infant suckling than upon maternal nutrition, age or parity. Such a biomedical explanation is in contrast with the cultural explanation.

Knowledge statements themselves, though they may be useful in discussions about specific views of women's world, do not predict behaviour. Women are not passive beings doing what culture and biomedics advocate for them, but they are social actors who use the

means and resources available to them at a particular time to make rational decisions about infant feeding. This study agrees with the views expressed by Yoder (1998) that perceptions are not reflective of the norm and mothers may choose to perceive breast feeding differently under various circumstances to explain their behavior to others and to themselves.

5.1.5 Relevance of the theory of real-life choice to this study and research findings.

This study adopted the theory of real-life choice because the assumption was that nowadays women live in different biological environments than their counterparts of a few generations ago. Women, instead of spending their life in childbearing—implying a long and internal phase of foetal growth and, next, a long and external phase of lactation—have choices on how, when and for how long to feed their children.

The findings indicate that mothers in Usigu Division do make decisions on when to have children and how many to have by use of contraceptives. They too make decisions on when to introduce supplements and when to stop breast feeding depending on their health, availability of other foods, occupation, their use of contraceptives, their perceptions of the importance of breast-feeding and the availability of 'jopidi' (baby-sitter).

The theory assumes that women **pre-attentively** undergo stage after stage making choices, eliminating other alternatives, and coming up with a real choice on procreation. This study has revealed that women in Usigu Division make decisions according to the prevailing circumstances but such choices are not pre-determined. This theory, therefore,

assumes that life is mechanical and it can be pre-determined, but this study has revealed that for every woman, pregnancy, birth and lactation are unique, calling for different and unique decisions.

5.2 CONCLUSION

Determinants of breast-feeding practices were the main subject of this study. The study set out to find the effect of mothers' age, contraceptive use, the gender of the child, and mothers' perceptions on breast-feeding. The results of the findings indicate that the mother's age has an effect on breast feeding practices; contraceptive use was not mentioned to have an effect on breast feeding duration; the sex of the child had a significant effect on breast feeding and that mothers' perceptions of breast feeding have a considerable effect on how children are breast-fed.

This study has shown that breast-feeding practices differ with age differences. Thus, the success of any promotion action, such as the campaign for breast milk against any other feeds, needs to target women when they are still pregnant. In addition, all women should be targeted during such campaigns since mothers are custodians of family and specifically child health.

In the study it emerged that fewer mothers use modern family planning methods. With the decline in the traditional methods of child spacing, mothers need to be informed through Information Education Campaigns by the Government, NGOs, the private sector, as well as religious organizations working in the health sector, on the appropriate contraceptive

methods of child spacing, and the effects these may have on breast milk. Health personnel should be given refresher courses in their relevant areas of expertise so that their knowledge is not obsolete. They should for instance be trained to train mothers on the appropriate ways of preparing infant formula. With the emergence of HIV/AIDS, breast milk is no longer disease-free if the mother is infected

The study also revealed that mothers' perceptions do greatly influence infant feeding practices, particularly breast-feeding. Thus, the success of nutrition programmes will largely depend on their acceptability and relevance to women as social actors. Through capacity building and enhanced training, mothers should be made aware that they are the custodians of their own health as well as the health of their infants. Their choices do not only affect them but the entire generation.

The theory of real life choice has been able to explain the way mothers choose one method of breast-feeding over another, but the choices are not pre-determined as the theory states. On the contrary, this study has revealed that a mother will choose a particular method of infant feeding over another as the situation demands.

5.3 Areas for further research

This study is not exhaustive since it has only covered a small section of a division in the whole country. Similar studies need to be carried out in other areas within the country.

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Appendix 1

QUESTIONNAIRE

- 1 Name of the respondent _____
- 2 Date of the interview _____
- 3 Age of the respondent: 13-20 _____ 21-30 _____ 31-40 _____
- 4 Occupation of the respondent _____
- 5 Number of children born to the mother _____

YOUNGEST CHILD

- 6 Age of the youngest child in completed months _____
- 7 Sex of the youngest child Male _____ Female _____
- 8 How soon after birth did you start breastfeeding? Immediately _____ After a hour
_____ After 5 hours _____

9 Are you still breastfeeding your youngest baby? Yes ___ No ___ If No, explain _____

10 How do you breastfeed your baby? On demand _____ On schedule _____ Other _____

11 How many times do you breastfeed your baby during the day? Once ___ Five times _____
More than five times _____ don't know _____

12 How many times do you breastfeed your baby during the night? Once ___ 3 times _____
5 times _____ never _____

13 Do you give your child any other food apart from breast milk? Yes ___ No ___
If _____ Yes _____ explain _____

14 How old was your baby when you introduced other foods?
Before 4 months ___ 4 Months _____ 6 Months ___ can't remember

15 Why have you started giving your baby other food? _____

16 Who helped you make this decision? TBA _____ CHW _____ Husband _____

CONTRACEPTIVE USE

17. Do you use any method of family planning? Yes _____ No _____

18. If no, how do you prevent pregnancy?

19. If Yes which one? Artificial _____ Natural _____

20 Who advised you on using this method? TBA _____ CHW _____ Husband _____
Friends _____ other _____

21 How long have you been using this method _____ Months

22 Did you use any other method before the present one? Yes _____ No _____

23 How has the method in Q21 above affected breast-milk?

GENDER OF THE CHILD

24 What is the sex of the second youngest child? Male ____ Female _____

25 How long did you breastfeed this child? Less than 3 months _____ 3-6 months

7-10 months _____ More than 1 year _____

26 Why did you stop breastfeeding the child? Pregnancy ____ No milk _____

Old enough ____ Sickness _____ Other _____

27 Would you have breastfed this child for a shorter/longer period were it a boy/girl? Yes ____ No ____ Explain

AGE OF THE RESPONDENT

28 How old were you at the time of your first birth?

13-24 _____ 25-34 _____ 35-45 _____

29 How long did you breastfeed your first child? Less than 3 months _____ 3-6 months _____

7-10 months _____ More than 1 year _____

30 Who advised you on how to breastfeed your baby? Mother-in-law _____ CHW _____
TBA _____ Husband _____ other _____

31. How long do you think you will breastfeed your youngest baby? _____ Months

If the answer in Q30 is different from the answer in Q32, explain. _____

MATERNAL OPINION ABOUT BREASTFEEDING

32. How long do you think breastfeeding should continue unsupplemented? _____
Months

I don't know _____

33. When do you think breastfeeding should stop completely? _____ Months

I don't know _____

34. If you have/had grown-up daughter(s), how long would you advise her/them to continue

breastfeeding unsupplemented? _____ Months I don't know _____

35. If the answer in 34 is different from 36 above, why?

36. Are there any taboos in this community about pregnancy and breast-feeding? Yes

_____ No _____

37.If

yes

explain

38. What factors do you think affect a mother's decision to breast-feed?

Appendix 11

FOCUS GROUP DISCUSSION GUIDE

Breast milk: Its value

- Who generally advises young women to breast-feed?
- What is the importance of breast-feeding?
- Why should a mother breast-feed their infants?
- How long should breast-feeding be encouraged without supplementation? With supplementation? Where did you get this information?

Colostrum

- Is colostrum given to babies? Should it be given to babies? Why?

Weaning

- What foods are used and which ones are not, and why these foods? Is there any sequence used in the introduction of these foods? What sequence?

Taboos

- Are there any taboos affecting breast-feeding?

- Are there any breast-feeding taboos in relation to pregnancy?
menstruation?
- How about food taboos?

Contraceptive use

- Do many people in this area use modern family planning methods?
- How many of you use these methods? Which particular ones do you use?
- How have these methods affected breast milk? Are there any other effects apart from affecting breast milk?

Gender of the child and breast-feeding

- Does the gender of the child affect the length of breast-feeding? How?
- Who are you likely to introduce supplements earlier for? Boys or girls?
Why this category of children? Who are you likely to breast-feed for long? A boy or a girl? Why this child?

Maternal opinion about breast-feeding?

- What are your feelings about breast-feeding?
- Is it bothersome? Enjoyable? Time consuming?
- Should breast-feeding be encouraged? Discouraged?

Appendix 111

LIFE HISTORY INTERVIEW SCHEDULE

- What is your name?
- How old are you?
- How many are you in your family?
- What position are you in your family?
- Can you tell me how your mother breast-fed each of you?
- How were you spaced? Did your mother use any method of family planning?
- When did you get married?
- How many children do you have? Girls? Boys?
- Tell me how you have breast-fed each of your children? highlighting the length at one feeding, and overall duration. When did you introduce supplements, what kind of supplements, and why?
- What are your perceptions of breast-feeding?

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