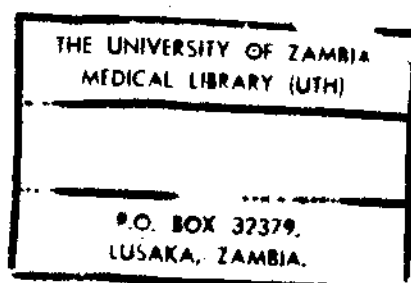


THE UNIVERSITY OF ZAMBIA

**SCHOOL OF MEDICINE
DEPARTMENT OF POST BASIC NURSING**



A STUDY TO DETERMINE KNOWLEDGE, ATTITUDES AND PRACTICE OF ANTENATAL MOTHERS TOWARDS EXCLUSIVE BREAST-FEEDING IN M'TENDERE – LUSAKA

BY
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**A RESEARCH STUDY SUBMITTED TO THE SCHOOL OF
MEDICINE, DEPARTMENT OF POST BASIC NURSING IN THE
PARTIAL FULFILMENT OF THE REQUIREMENTS OF THE
BACHELOR OF SCIENCE IN NURSING DEGREE.**

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ABSTRACT

The main aim of the study was to determine knowledge, attitudes and practice of antenatal mothers towards exclusive breast-feeding in M'tendere – Lusaka.

A sample size of fifty (50) antenatal mothers was selected from women attending antenatal care at M'tendere Health Centre. Only women residing in M'tendere catchment area and attending antenatal clinic regularly were included in the study.

Literature review was based on the studies done in other countries all over the world, to try and establish the knowledge, attitudes and practice of antenatal mothers towards exclusive breast-feeding.

Data was collected using a self administered questionnaire and was checked for completeness and accuracy. The data collected was analysed manually on a data master sheet. The study findings were presented in frequency tables, cross tabulation tables and figures like the pie charts and bar graphs.

The study findings revealed that 94% of the respondents were knowledgeable about the benefits of exclusive breast-feeding and the main source of information was the Health Centre. The study further revealed that 40% of the respondents who were knowledgeable about the benefits of exclusive breast feeding were in the age group of 25-29 years.

The study findings also revealed that 72% of the respondents had a positive attitude towards exclusive breast-feeding. It further revealed that 64% of the respondents who had a positive attitude had heard about the benefits of exclusive breast-feeding from the health centre.

The study findings revealed that 66% of the respondents did not exclusively breast-feed their babies; only 34% did. However, of those who practised exclusive breast-feeding, 32% exclusively breast-fed for six (6) months and 2% did so for four (4) months.

The study also revealed that cultural/traditional practices influenced 56% of the respondents to stop breast-feeding when they conceived. The educational level had no significant relationship with the practice of exclusive breast-feeding.

The major recommendations in view of the results of the study focused on:-

1. Establishing lactation counselling in Health Centres and also establish mothers' breast-feeding support groups in the communities.
2. The Ministry of Health to train and orient more health care providers on the management of lactation/exclusive breast-feeding with emphasis on the ten (10) step of successful breast-feeding.

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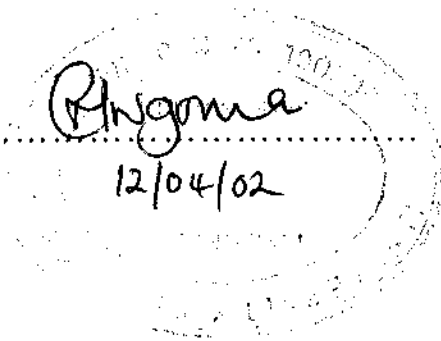
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DECLARATION

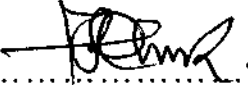
I hereby declare that the work presented in this study for a Bachelor of Science Degree in Nursing has not been presented either wholly or in part for any other Degree, and is not being currently submitted for any other Degree.

SIGNED..........

APPROVED BY..........

STATEMENT

I hereby certify that the work presented in this study is entirely the result of my own independent investigations. The various sources to which I am indebted are clearly indicated in the text and in the references.

SIGNED..........

DEDICATION

To my sister Harriet who died during the course of my training.

LIST OF ABBREVIATIONS

| | | |
|---------------|---|--|
| AAP | - | American Academy of Paediatrics |
| BFHI | - | Baby Friendly Hospital Initiative. |
| CSO | - | Central Statistical Office. |
| DHMT | - | District Health Management Team. |
| EBF | - | Exclusive Breast Feeding. |
| IBFAN | - | International Baby Food Action Network. |
| IEC | - | Information, Education and Communication. |
| ITG | - | Integrated Technical Guidelines |
| LATCA | - | Latin America and Caribbean Region |
| MCH | - | Maternal and Child Health |
| MOH | - | Ministry Of Health. |
| NFNC | - | National Food and Nutrition Commission. |
| UNICEF | - | United Nations Children's Emergency Fund. |
| WABA | - | World Alliance for Breast-feeding Action. |
| WHA | - | World Health Assembly |
| WHO | - | World Health Organisation. |
| ZDHS | - | Zambia Demographic and Health Survey. |

CHAPTER ONE

1.0 INTRODUCTION

1.1 BACKGROUND INFORMATION

Zambia is a landlocked country covering an area of about 752,612 Sq. Km. the country shares borders with nine countries namely Tanzania, Burundi, Malawi, Mozambique, Zimbabwe, Botswana, Namibia, Angola and the Democratic Republic of Congo.

Zambia is divided into nine provinces and these provinces are subdivided into 67 districts. The country has a population of 10.6 million people comprising of 72 ethnic groups, which cover all the nine provinces. Four (4) out of ten (10) Zambians live in the urban areas, which are located along the line of rail. The most urbanised and densely populated areas are the Copperbelt and Lusaka provinces. The average density range from fifty (50) people per Sq. Km in Lusaka and Copperbelt provinces to five (5) or less people per Sq. km in western and northwestern provinces. (CSO, 1996).

Zambia's population growth rate is one of the highest in Africa. At independence in 1964, Zambia's population growth rate was 2.5%. By 1975, it had reached 3.2%. The implications of this fast growing population were serious on a declining economy. Having recognised the difficulties of the current system of providing care, Zambia found the recommendations and declaration of the Alma-

atta's international conference on primary health care (PHC) in 1978 an attraction option. To achieve this, Zambia embarked on a health reform process. (National Health Reforms, 1991).

The vision of the health reforms in Zambia is to provide equitable access to high quality, cost effective interventions, as close to the family as possible. To achieve this vision a strategic health plan was developed with leadership, accountability and partnership as guiding principles. The process of decentralisation was begun and the Ministry of Health (MOH) then defined new roles and responsibilities for the Central, Regional and District levels. New structures were designed such as the District Health Boards, the District Health Management Teams, the hospital management boards and the Central Board of Health.

The decentralising of responsibilities for service provision with the districts as the focal point of integrating health care has been one of the central focuses of health reforms (Family Planning Reproductive Health, 1997) and Maternal and Child Health (MCH) services in particular. (ITG, 1997).

Virtually, all children benefit from breast-feeding, regardless of where they live. Breast milk has all the nutrients babies need to stay healthy and grow. It protects them from diarrhoea and acute respiratory infections, two leading causes of infant death. It stimulates their immune systems and response to vaccinations.

It contains hundreds of health-enhancing antibodies and enzymes. It requires no mixing, sterilisation or equipment and it is always at the right temperature.

World Health Organisation (WHO, 1995) has recommended optimal breast-feeding. Optimal breast feeding means exclusive breast feeding for the first six (6) months of age and continued breast feeding with appropriate complimentary foods up to two (2) years and beyond with timely introduction of adequate complimentary feeding. The infant should be fed frequently for unrestricted periods.

In 1992, UNICEF and WHO launched the baby friendly hospital initiative in an effort to ensure that all hospitals become centres of breast feeding support. A hospital is designated 'baby friendly' when it has agreed not to accept free or low cost breast milk substitutes, feeding bottles, teats and to implement ten (10) specific steps to support breast feeding. Since the initiative began, nearly 15,000 hospitals in 128 developing and industrialised countries have been awarded baby friendly status. In many areas where hospitals have been designated baby friendly, more mothers are breast-feeding their infants and child health has improved. (WHO/CHD/98).

Breast milk substitutes are an expensive, inferior and often dangerous substitute for breast milk, but formula manufacturers have non-the-less aggressively advertised and marketed them. Recognising the need to regulate these

practices, World Health Assembly (WHA, 1981), adopted the international code of marketing of breast milk substitutes.

The code stipulates that there should be absolutely no promotion of breast milk substitutes, bottles and teats to the general public; neither health facilities nor health professionals should ever have a role in promoting breast milk substitutes; and free samples should not be provided to pregnant women, new mothers or their families.

In India for example; legislation requires that tins of infant formula carry a conspicuous warning about the potential harm caused by artificial feeding placed on the central panel of the label (Goals 2000/UNICEF).

In 1992, World Alliance for Breast-feeding Action (WABA) was launched of which Zambia is a member. WABA is a global people initiative to protect, practice and support breast-feeding. It works in close liaison with UNICEF.

The challenge of the researcher lies on the fact that most mothers introduce breast milk substitutes before their babies are six (6) months of age. There is need therefore to find out how much knowledge antenatal mothers in Mtendere have, and their attitudes and practice towards exclusive breast-feeding.

1.2 STATEMENT OF THE PROBLEM

Exclusive breast-feeding protects against infant deaths and morbidity. For instance, infants who are exclusively breast-fed are likely to suffer only one (1) quarter as many episodes of diarrhoea and respiratory tract infections as babies who are not breast-fed (Goals 2000/UNICEF).

The current infant mortality rate is estimated at one hundred and seven per thousand live births (107/1000) and almost one million Zambian children under five years of age die each year. The five (5) leading preventable killer diseases, which account for more than 70% of deaths, are malaria, diarrhoea, pneumonia, malnutrition and anaemia (Joint WHO/UNICEF statement).

It has been documented that the practice of exclusive breast feeding for the first six (6) months of life has a significant contribution to the reduction of the childhood health problems, while continued breast feeding up to two (2) years and beyond could ensure child's protection against infections, food security and health care benefits. Therefore, it is most likely that if the majority of Zambian children were exclusively breast fed, the high infant mortality rate may be reduced.

In Zambia, breast-feeding is almost universal, for example, 88% of mothers breast-feed their newborn infants for longer than six (6) months (Carlisle D., 1997).

Although Zambian mothers breast-feed their babies, very few are exclusively breast-feeding for the first six (6) months. They introduce supplementary feeds quite early. This fact is confirmed by the 1996 ZDHS preliminary report, which indicates that only 26% of babies under six months of age were exclusively breast-fed.

Similarly, a study conducted by Hambayi N, et al in 1997 found out of a sample of mothers with children aged 0 – 6 months, only 20% exclusively breast fed for the first month. Seventy percent (70%) gave water to their infants and by 2 – 5 months, mothers had already introduced complementary foods to their infants.

The early introduction of complementary foods such as maize porridge can reduce the benefits of exclusive breast-feeding and increase the risk of infections such as diarrhoea diseases in children less than six (6) months of life.

During the last 10 years, child nutritional status in Zambia has been deteriorating and deaths of children under five (5) years have been rising. The age patterns of malnutrition indicate that growth faltering during infancy could be the greatest nutritional problem. Perhaps nutrition interventions ought to be focussed on promoting exclusive breast feeding up to six (6) months and appropriate supplementary feeding thereafter. This could help in reducing malnutrition and subsequent infant deaths.

In 1992, Zambia developed a national breast-feeding policy in order to facilitate improved child survival and safe motherhood through exclusive breast-feeding with appropriate complementary foods for 2 years and beyond.

After the development of the policy, interventions were taken to enhance the implementation of the policy. The interventions included the formation of the National breast-feeding task force with the national food and nutrition commission as its secretariat. The Family Life Movement of Zambia, Planned Parenthood Association of Zambia, Breast feeding Association of Zambia, La leche League, Lactation movement team and CARE International are major supporters of the breast-feeding policy (Zambia National Breast feeding Policy; 1997).

UNICEF has also introduced baby friendly hospital initiative, despite all these efforts, majority of mothers are still not exclusively breast-feeding their babies. The mothers' knowledge and practices towards exclusive breast-feeding could be affected by many factors. These factors include the socio-economic status of the mother. Mothers who are in formal employment tend to have a shorter exclusive breast-feeding period compared to other mothers. This could be attributed to the short maternity leave duration, which is 90 days. Due to the short duration of the maternity leave, working mothers introduce breast milk supplements as soon as they go back for work even when their initial desire was to exclusively breast feed for six (6) months. In addition, well to do mothers

prefer bottle-feeding their babies, as they are able to afford breast milk substitutes.

Traditional or cultural beliefs and practices can also influence mothers' knowledge and practice of breast-feeding exclusively. Whether educated or not, mothers are more likely to succumb to certain beliefs or practices; for example women don't breast feed in public due to a belief that the baby would develop diarrhoea if fed in public. This is known as 'lcibele' in local language. Mothers could also wean abruptly the infant from the breast in the event of conceiving another pregnancy.

Illness on the part of the mother, especially when chronic, compromises her immunity. Her nutritional and health status become poor hence breast milk production may be reduced and may become inadequate to meet the needs of the infant. Therefore, sickness of the mother can interfere with breast-feeding. Scheduled feeding is likely to affect exclusive breast-feeding. The practice of nursing babies in nurseries away from their mothers may also affect the practice of exclusive breast-feeding.

The other factor that may affect mothers' knowledge and practices towards exclusive breast-feeding is lack of information on the benefits of exclusive breast-feeding. Some mothers may get misleading information on exclusive breast feeding and may be discouraged to exclusively breast feed their babies.

Therefore, a well-informed mother may exclusively breast feed her baby. Due to lack of knowledge, some mothers may prefer bottle-feeding to breastfeeding as they consider it to be a symbol of status. Inadequate knowledge on the part of the mother on how to sustain breast-feeding may also affect exclusive breast-feeding. For example, a woman may be ignorant about the practice of expressing milk for the baby while she is away for work. Hence she may resort to breast milk substitutes like infant formulae.

On the other hand, the health personnel may have inadequate information on exclusive breast-feeding and management of lactation. This could contribute to mothers not being adequately informed about exclusive breast-feeding.

Attitudes of the staff in health centres may also prevent mothers from exclusively breast-feeding their babies. Health care providers who have a negative attitude towards exclusive breast-feeding may not give adequate information to mothers on the same subject.

Availability of breast milk substitutes on the Zambian market especially in the urban areas may also influence mothers' knowledge and practices towards exclusive breast-feeding. The mere presence of breast milk substitutes can entice well to do mothers to bottle-feed.

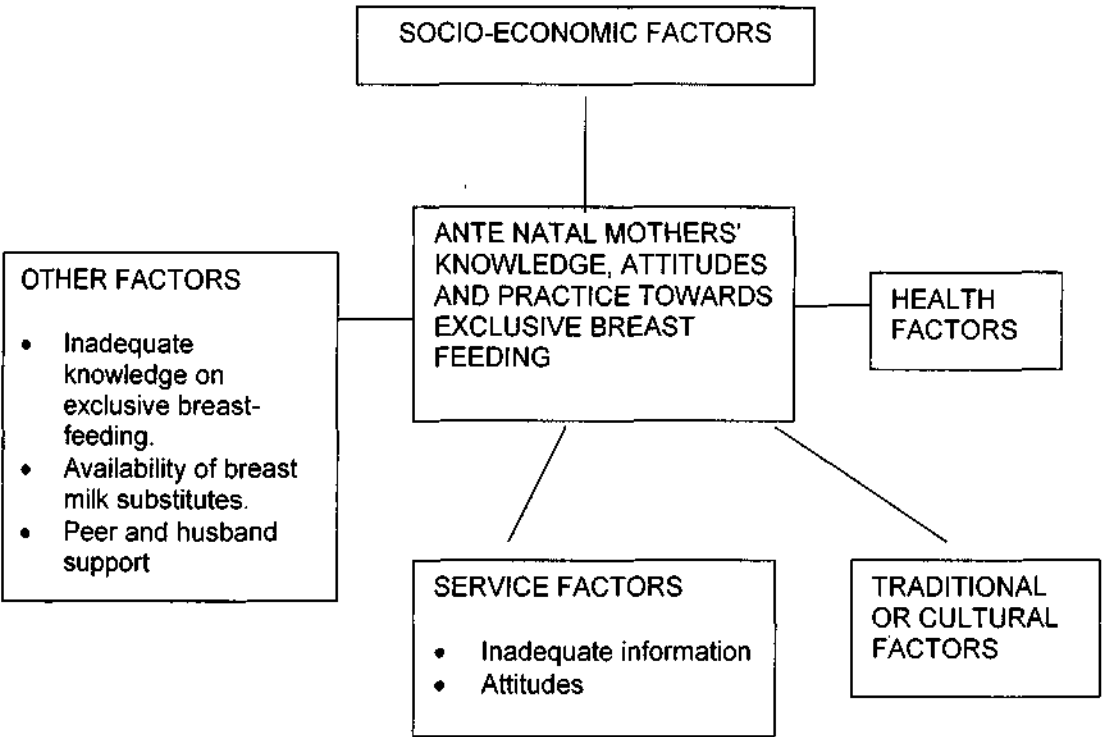
Finally, peer support is another factor that may affect mothers' knowledge and practices. Women who are exclusively breast feeding and those who successfully exclusive breast feed their babies may be a source of inspiration for

their friends who want to exclusively breast feed and those that are exclusively breast feeding.

Husbands' support may also influence mothers' knowledge and practices towards exclusive breast-feeding. Women whose husbands support exclusive breast-feeding are more likely to exclusively breast feed their babies.

The diagram below shows the factors influencing antenatal mothers' knowledge, attitudes and practices towards exclusive breast-feeding.

FIGURE 1.
A DIAGRAM OF ANALYSIS OF FACTORS INFLUENCING KNOWLEDGE AND PRACTICES TOWARDS EXCLUSIVE BREAST FEEDING



1.3 JUSTIFICATION OF THE STUDY

The benefits of exclusive breast-feeding for the infant are well documented and cannot therefore be over emphasised. A UNICEF (2000) document stated that if every baby were exclusively breast fed from birth, an estimated 1.5 million lives would be saved each year. And not just saved, but also enhanced, because breast milk is the perfect food for a baby's first six (6) months of life – no manufactured product can equal it.

An insight into the factors influencing antenatal mothers' knowledge, attitudes and practices towards exclusive breast feeding will greatly help in planning strategies of exclusive breast feeding promotion and support, so that mortality and morbidity rates could be reduced among infants in M'tendere.

The findings of the study will also help to disseminate adequate information, education and communication (IEC) on exclusive breast-feeding to antenatal mothers.

The findings will also help fill up the gaps and increase the body of knowledge about the knowledge, attitudes and practices of antenatal mothers towards exclusive breast feeding, hence, the study may be done on a larger scale in future.

1.4 OBJECTIVES

1.4.1 GENERAL OBJECTIVE

The main objective of the study is to determine the factors influencing antenatal mothers' knowledge, attitudes and practices towards exclusive breast-feeding in Mtendere-Lusaka.

1.4.2 SPECIFIC OBJECTIVES

- (i) To establish knowledge of antenatal mothers on exclusive breast-feeding.
- (ii) To assess the attitude of antenatal mothers towards exclusive breast-feeding.
- (iii) To determine the practice of antenatal mothers towards exclusive breast-feeding.
- (iv) To explore the factors inhibiting mothers from practising exclusive breast-feeding.
- (v) To make recommendations to the relevant authorities on how exclusive breast-feeding can be improved.

1.5 HYPOTHESIS

1. Mothers who know the benefits of exclusive breast-feeding practice exclusive breast-feeding.
2. Mothers who have attained a high level of education breast-feed their babies exclusively.

1.6 VARIABLES

A variable is a quantity, property or characteristic of a person, object or phenomenon that change or vary and can take on different values.

An independent variable is a variable that influence other variables. It contributes to causes or determines something.

For example:

- (i) Socio-economic factors
- (ii) Traditional or cultural factors
- (iii) Health factors
- (iv) Service factors.

A dependent variable is a variable that is used to describe or measure the problem under study. It reflects the effect or response to the independent variable. For example:

- (i) Knowledge
- (ii) Attitude
- (iii) Practice.

The variables that will be investigated in this study are knowledge, attitude and practice of antenatal mothers towards exclusive breast-feeding in Mtendere.

TABLE 1: INDICATORS AND CUT OFF POINTS FOR THE VARIABLES

| VARIABLE | INDICATORS | CUT OFF POINT |
|-----------|---------------------|---------------|
| Knowledge | • Knowledgeable | 2 – 4 points |
| | • Not knowledgeable | 0 – 1 Points |
| Attitude | • Positive attitude | 2 – 3 Points |
| | • Negative attitude | 0 – 1 Points |
| Practice | • Practiced | 1 Point |
| | • Not practiced | 0 Points |

CRITERIA FOR INDICATORS AND CUT OFF POINTS

Knowledge:

- **Knowledgeable:** Respondent should
 - (i) Have heard about exclusive breast-feeding.
 - (ii) Tell that exclusive breast-feeding is feeding the baby on breast milk only from birth up to six (6) months of age.
 - (iii) Know that exclusive breast-feeding is good for baby.
 - (iv) Tell at least one benefit of exclusive breast-feeding.
- **Not Knowledgeable:** The respondent should only meet 0-1 point of the set criteria.

Attitude

- **Positive attitude:** The respondent should:
 - (i) Believe that exclusive breast-feeding is best for baby.
 - (ii) Have practised exclusive breast-feeding before.

(iii) Know that baby must be given breast milk only as food from birth to six (6) months of age.

- **Negative attitude:** The respondent should only meet 0-1 point of the set criteria.

Practice

- **Practised:** The respondent should have practised exclusive breast-feeding, must have introduced breast milk substitutes to the baby at six (6) months of age or later.
- **Not practised:** The respondent should not have a point of the set criteria. Thus have not exclusively breast fed before.

1.7 DEFINITION OF TERMS

- (a) **KNOWLEDGE:-** Aware of something.
- (b) **ATTITUDE:-** Manner of feeding and behaviour towards something.
- (c) **PRACTICE:-** Actual use or performance as compared to the idea.
- (d) **EXCLUSIVE BREAST-FEEDING:-** Feeding the infant on breast milk only, from birth to six (6) months of age.
- (e) **BREAST MILK SUBSTITUTES:-** Baby food or drink that is used to replace breast milk and breast feeding.
- (f) **COMPLEMENTARY FOODS:-** Any food with nutritional value suitable as a complement to breast milk or to infant formulae.

- (g) INFANT FORMULA:- An animal or vegetable milk product.
- (h) MORBIDITY:- The ratio of the number of diseases to the total population.
- (i) MORTALITY:- Death rate. The ratio of the number of deaths to the total population.
- (j) ANTENATAL:- The period between conception and delivery of the child.
(Normally 40 weeks).

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

The literature reviewed and discussed in this section will be presented under the following subheadings:

- (a) The Global situation of exclusive breast-feeding.
- (b) The Regional situation of exclusive breast-feeding.
- (c) The Zambian situation of exclusive breast-feeding.

Babies should be exclusively breast-fed meaning that they receive nothing but breast milk, not even water for the first six months of life (WHO, 1997). This is because breast milk is a nutritive food and is claimed as the best form of nutrition for the infants (Jelliffe and Jelliffe, 1998). It also has protective, anti-infective components (Akre, 1989).

It is assumed that if every baby were exclusively breast fed from birth an estimated 1.5 million lives would be saved each year. And not just saved, but life would be enhanced because breast milk is perfect food for a baby's first six (6) months of life and no manufactured product can equal it.

Breast milk has all the nutrients babies need to stay healthy and grow. It protects them from diarrhoea and acute respiratory infections – two leading causes of

infant death. It stimulates their immune systems and response to vaccinations. It contains hundreds of health enhancing antibodies and enzymes. It requires no mixing, Sterilisation or equipment and it is always at the right temperature (Goals, 2000).

2.2 THE GLOBAL SITUATION OF EXCLUSIVE BREAST-FEEDING

Child survival strategies to reduce morbidity and mortality among children include prolonged and intensive breast-feeding together with its early initiation and provision of breast milk only to the infant for the first six (6) months of life. Breast-feeding is considered as the first immunisation of the child and provides optimum growth for up to six months of age. But globally, there are improper breast feeding practices.

Recently, the American Academy of Paediatrics (AAP) released a policy statement on breast-feeding citing compelling advantages of breast-feeding for infants, mothers and families and society. The policy statement strongly endorsed exclusive breast-feeding as ideal nutrition for the first six months of life, with the gradual introduction of iron enriched solid foods in the second half of the year. For example, Colostrum is largely discarded and prelacteal feeds are given to new borns. There is also an increasing tendency towards use of artificial milk. Before the 1990's, breast-feeding rates were very low in the United States of America. This culminated in wide spread breast-feeding promotions.

Wide spread breast-feeding promotion efforts in the United States of America have been successful in raising national breast-feeding rates throughout the 1990's. For instance in 1997, 62.4% of United States of American mothers began breast-feeding their infants in the hospital and 41.7% of these women were still breast-feeding at six months – i.e. 26% of all mothers (USA mothers' survey, 1998).

However, the situation is different in the other regions of the world such as the Latin America and Caribbean Region (LATCAR). In the above-mentioned regions, most of the infants are breast fed for longer duration but are not exclusively breast fed. The 1994 World Paediatric Demographic Health surveys revealed that 71% of infants aged 0 – 4 months were not breast fed exclusively during the first four months of life. It was also found out that in both LATCAR and African regions breast-feeding duration was longer in rural than urban areas.

Breast-feeding plays a significant role in reducing diarrhoea morbidity and mortality. A case-control study in Brazil on the benefits of exclusive breast-feeding found that the risk of mortality from diarrhoea was 25 times higher in non-breast fed infants aged 0-2 months compared to exclusively breast fed infants. The same study found that 62% of deaths were due to persistent diarrhoea (Victoria et al, 1989).

The role of exclusive breast-feeding in preventing diarrhoeal morbidity has also been documented in an urban slum area of Lima, Peru. Infants under 5 months of age who received breast milk plus other non milk liquids like tea and water, had a two (2) times greater risk of diarrhoea than exclusively breast fed infants. Non-breast fed infants exhibited the highest rates of diarrhoea (De Zoysa, 1991).

From the Philippines, studies reported diarrhoea prevalence rates in infants younger than six months to be significantly higher among those who received water and tea in addition to breast milk than among those who were exclusively breast-fed. These prevalence rates doubled with the addition of water and tea to breast-feeding, while the addition of nutritive liquids increased the likelihood of diarrhoea up to 13 times, depending on the age of the infant when the addition was made. (Popkin et al, 1990).

Breast-feeding does not only protect the infant from diarrhoea; it also protects from death from diarrhoea and other causes. For instance, in a study on clinical aspects of lactation in Denver – Colorado, Frechem and Koblinsky (1994) found that the median relative risk of death from diarrhoea in the first 6 months of life was 25; with partial breast-feeding, the relative risk was 8.6 (Dualeh and Henry, 1999). In a similar study conducted in Southern Brazil by Victoria, et al (1989), it was discovered that there was a relative risk of diarrhoeal deaths of between 3.0 and 4.0 for breast-fed infants who received supplementary cow's milk or infant formula when compared with exclusively breast-fed ones.

WHO had developed guidelines to health interventions for safe motherhood entitled the mother-baby package. The guidelines are the minimum levels of care that all pregnant women and new borns should receive and advocates putting the newborn to the breast as soon as possible after birth and exclusively breast-feed (Safe motherhood Newsletter, 1994).

However, studies on child feeding practices show that world wide, exclusive breast-feeding is rare and early supplementation with water, juices and other fluids is the norm (Ashraf et al, 1993).

There is general perception that the infant needs additional fluids; especially water to maintain his water balance. In a study from India, Sachdev and Co workers found that 97% of nurses and 63% of doctors believed that water supplementation was necessary in the summer (Sachdev et al, 1991).

The same study, however, did not find any significant difference in hydration status between the breast-fed infants and those receiving supplementary water.

Other studies on water supplementation in Peru have similarly shown that exclusive breast-fed infants do maintain adequate hydration states even in warm climates (Brown et al, 1986). Therefore, breast milk alone can maintain adequate water balance in the young infant and supplementary fluids are therefore not needed to maintain adequate hydration in the breast-feeding baby.

Studies have shown that breast milk alone can support the nutrient needs of an infant for the first six months of life. Dewey, et al, 1992 carried a comparative study on the growth of fully breastfed infants from a poor Peruvian community with the infants from an affluent US population. The results of this study revealed comparable growth rates in the first six months of life even though the Peruvian infants had ten times the diarrhoeal morbidity than the US infants (Dewey et al, 1992).

Lactation performance in both groups was also similar. However, growth faltering occurred in the Peruvian infants after six (6) months. Similar studies have also shown such growth faltering at or around six (6) months. (Seward and Serdula, 1984; Waterlow and Thomson, 1980) such faltering may be related to the amount and nutrient density of complementary feeds given (Dewey et al, 1992).

It has also recently been shown in India in a case control study that, at least in an experimental situation in an underdeveloped country, the regime of exclusive breast-feeding for the first six (6) months with nutritive complementary feeds thereafter can adequately support the growth of healthy infants born to healthy mothers for at least the first year of life. (Diaz et al, 1995).

2.3 THE REGIONAL SITUATION OF EXCLUSIVE BREAST-FEEDING

In Nigeria, like in most other parts of the world, there have been recent trends towards a decrease in exclusive breast-feeding and the duration of breast-feeding. Although most Nigerian women breast-feed their infants, the average duration of exclusive breast-feeding is only 0.4 months. Less than 2% of Nigerian children under two (2) months of age are exclusively breast-fed, and 57% of them receive water apart from breast milk, while 38% of children, two-three months old receive other breast milk supplements (Federal office of statistics, 1992).

In a study on local knowledge and attitudes of exclusive breast-feeding and the socio-cultural factors that shape its practice in poor rural Yoruba communities of South-western Nigeria, ten (10) focus group discussions were conducted among homogenous groups of pregnant women and lactating mothers together with a questionnaire survey of 256 third trimester pregnant women (Rao and Kanade, 1992).

In this same survey, 23% of the women thought the practice of exclusive breast-feeding (with breast milk as the only nutrient source and in which the infant receives no supplementary tea or water) was possible. However, none of the focus group participants believed that exclusive breast-feeding was possible for even one day.

In another study conducted to determine the practice of exclusive breast-feeding in Nigeria, it was found out that children less than 3 months old who were not breast-fed were ten (10) times more likely to have diarrhoea than those who were exclusively breast-fed (Huttley et al, 1997).

Kyenkya et al, (1990) in the South African Breast-feeding Newsletter said the Breast-feeding Association of South Africa was extremely effective and forceful in promotion of breast-feeding, but only served the minority white community, and as such the majority community was left out.

2.4 ZAMBIAN SITUATION OF EXCLUSIVE BREAST-FEEDING

After 1981, the Zambian Government introduced the code, which is based on the interaction code of marketing of breast milk substitutes. This code came into effect in 1982 and was meant to re-inforce the government policy on encouraging breast-feeding. The goal of the policy is to facilitate child survival, growth, development and psychosocial wellbeing through exclusive breast-feeding for the first six (6) months and continued thereafter with appropriate food supplements for 2 years and beyond.

The general statement of the policy states that every woman is empowered to exclusively breast-feed for the first 6 months and continue thereafter for 2 years and beyond.

In Zambia, many mothers breast-feed their infants when they are born. However, few mothers practice exclusive breast-feeding. The 1995 ZDHS show that only 13% of infants under 2 months were exclusively breast-fed compared to 16% in 1992 (ZDHS, 1996). Similarly, Steel A (1996) conducted a study on mothers' knowledge and practice of exclusive breast-feeding in the catchment areas of Kanyama, Chipata and Chilenje health centres in Lusaka. It was discovered that 58% of infants aged 0-3 months had already been given breast milk supplements.

The baby friendly initiative was also launched in 1991 through the WHO/UNICEF joint programme towards promoting exclusive breast-feeding. The programme advocated for ten (10) steps to successful breast-feeding. A baby friendly hospital does not accept free or low cost breast milk substitutes, feeding bottles or teats and implements these 'Ten steps to support breast-feeding.'

TEN STEPS TO SUCCESSFUL BREAST-FEEDING

Every facility providing maternity services and care for newborn infants should:

1. Have a written breast-feeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breast-feeding.

4. Help mothers initiate breast-feeding within one half hour of birth.
5. Show mothers how to breast-feed and maintain lactation even if they should be separated from their infants.
6. Give newborn infants no food or drink other than breast milk, unless medically indicated.
7. Practice rooming in- that is, allows mothers and infants to remain together 24 hours a day.
8. Encourage breast-feeding on demand.
9. Give no artificial teats or pacifiers (also called dummies or soothers) to breast-feeding infants.
10. Foster the establishment of breast-feeding support groups and refer mothers to them on discharge from the hospital or clinic.

CONCLUSION

As breast milk alone can provide the entire nutrient needs of the infant up to six (6) months, there is no advantage in introducing complementary foods before that age. On the other hand, such early introduction may expose the infant to contaminated weaning foods. Nutrient dense complementary foods should therefore be introduced at about six months.

CHAPTER THREE

3.0 METHODOLOGY

3.1 RESEARCH DESIGN

A research design is defined as "the planning of any scientific research from the first to the last step". In its widest, sense it is a programme to guide the researcher in collecting, analysing and interpreting observed facts (Bless C., 1988). The purpose of this study was to determine the knowledge, attitude and practice of antenatal mothers towards exclusive breast-feeding. In this study a descriptive study design was used. Polit and Hungler (1997), defines a descriptive study as the one that has a main objective, the accurate portrayal of the characteristics of persons, situations or groups, and or the frequency with which phenomena occur.

This study design was used because it was less costly and less time consuming and, therefore, enabled me carry out the study within the specified period of time. In addition, in descriptive research design, the respondents are generally co-operative with the investigator because they are only required to supply specific information, which takes a short period of time.

3.2 RESEARCH SETTING

The study was conducted in Lusaka urban at M'tendere clinic. Lusaka Urban District is located in Lusaka province at latitude 15 degrees south of the equator.

The city boundaries have rapidly grown from 70 square kilometres to 360 square kilometres. On the northern side is Zanimuone Hotel, Chilanga in the south, Garden house hotel on the western side and the International Airport turn off on the eastern side. The total population of Lusaka according to the CSO (1998) is 1,183,616 people, of which 600,847 are women in childbearing age.

However, the service area population is believed to be well over 2 million.

The providers of health services are the Government, the private sector and traditional healers. While the University Teaching Hospital and Chainama Hospital are statutory boards run by the government, the defence force run Maina Soko Military Hospital. With the hand over of N'gombe health centre to the District Health Management Team, there are 23 health centres under its jurisdiction. The health centres are administratively divided into 8 zones.

DHMT has 8 functioning in-patient facilities. In terms of maternity services, 9 health centres have delivery facilities.

M'tendere clinic is one of the clinics under Lusaka Urban District Health Management Team. It is situated in the eastern part of Lusaka city. It is about 10km from the city centre.

The catchment area population is about 080,940 people for Mtendere clinic and the catchment area include:

- M'tendere Compound
- Kalikiliki Compound
- Ibex Hill
- Part of Kabulonga
- Part of Natural Resources Development College.

The clinic is also utilised by many other people from Helen Kaunda, part of Chainama and part of Munali. M'tendere clinic was chosen to be the study setting because it serves a lot of antenatal women who are either well to do or not, and/or in employment or not etc; considering its catchment area which include both high residential as well as shanty compounds. All these where in the study population and were the right people to investigate the appropriate data on.

3.3 STUDY POPULATION:

This is the population that the researcher has access to and actually studies. The study population consisted of all antenatal women residing in M'tendere clinic catchment area. These included both those who had breast-fed before and those that had not. The study units were pregnant women attending antenatal care at M'tendere clinic.

3.4 SAMPLE SIZE AND SELECTION CRITERIA

A sample of fifty (50) antenatal women, both those who had breast-fed before and those who had not was selected. These women were the ones that attended antenatal care at M'tendere clinic. Only women residing in M'tendere catchment area and attending antenatal clinic regularly were included in the study.

3.5 SAMPLING METHOD:

Sampling involves the selection of a number of study units from a defined population. The simple random sampling method was used to draw the sample from the total population. This method ensures that all units in the population have an equal chance of being included in the sample. A lottery method was used to draw a sample of fifty (50) women from the antenatal clinic. In a lottery technique (Fish ball technique), each number or name is written on a separate piece of paper. Slips are more than the desired sample. Then all the pieces of paper are put in a container and shaken and a number is selected until the required number is reached.

3.6 DATA COLLECTION AND TECHNIQUE

Data was collected using a semi structured interview schedule. The interview schedule was a standard questionnaire, which contained all the study variables on which data was collected and respondents were asked exactly the same

questions in the same sequence but additional probes were allowed. Questions on the interview schedule included both open ended and closed ended.

The interview schedule was appropriate for probing the respondents because the study population comprised both the literate and illiterate women who could not read and write. This technique has a low non-response rate and it enabled the researcher to clarify unclear statements.

However, this instrument had limitations. Interviews were time consuming and expensive and the presence of the researcher influenced responses of the respondents. Furthermore, the interviewer could misinterpret non-verbal behaviour. Responses that were not standardised were difficult to quantify. Analysis was also time consuming and more difficult.

Data collection was done in August and September 2001. This was done in two (2) weeks on everyday basis from 08:00 hours – 12:00 hours in the morning. Five mothers were interviewed everyday.

3.7 ETHICAL CONSIDERATIONS

Permission to conduct the study was sought from Lusaka Urban District Health Management Team. A letter asking for permission to conduct this study at M'tendere health centre was written to the relevant health authorities (Appendix ii).

Verbal consent was obtained from each antenatal mother before the interview and no participant was forced to participate in the study.

All the information obtained from the participants was treated as confidential and anonymity of all respondents was maintained.

Privacy was maintained during the interview by conducting the interview in a room with fewer disturbances from other staff, closing the door and indicating on the door that "Do not disturb."

3.8 PILOT STUDY

A pilot study is a small-scale study that is conducted before the main study on a limited number of subjects drawn from the same population as that intended for the actual study. The pilot study sample constitutes 10% of the anticipated sample size.

A pilot study was conducted at Chilenje clinic to check the accuracy and completeness of the instrument. This study was done to check if the required information would come out as intended. This also helped the researcher to identify potential problems in the study.

CHAPTER FOUR

4.0 ANALYSIS OF DATA AND PRESENTATION OF FINDINGS

4.1 INTRODUCTION

Data analysis is a process of carefully scrutinizing data by placing it in categories, calculating and applying the statistical procedures (Polit & Hungler, 1997). The purpose of the study was to determine knowledge, attitudes and practice of antenatal mothers towards exclusive breast-feeding in M'tendere – Lusaka.

Fifty (50) women who attended antenatal care at M'tendere clinic and residing in M'tendere catchment area participated in the study. These women were selected by random sampling.

4.2 ANALYSIS OF DATA

The data which was collected by self administered questionnaires was checked for completeness and accuracy at the time of collecting the questionnaires from respondents and before analysis. It was analysed manually using a data master sheet. Quantitative data was analysed by first ordering the responses according to the research objectives and hypotheses. Then categorized and summarized so that interpretation could be made.

4.3 PRESENTATION OF FINDINGS

The study findings were presented in table form, that is, frequency tables and cross tabulations. Figures such as pie charts and bar charts were also used. This was found to be appropriate because tables summarized the results in a meaningful way, which facilitated understanding of the study findings.

TABLE 2: SOCIO DEMOGRAPHIC DATA

| | VARIABLE | FREQUENCY | PERCENTAGE |
|----|---------------------------|------------------|-------------------|
| 1. | AGE GROUP | | |
| | 15 – 19 | 6 | 12% |
| | 20 – 24 | 15 | 30% |
| | 25 – 29 | 22 | 44% |
| | 30 – 34 | 4 | 8% |
| | 35 - 39 | 3 | 6% |
| | TOTAL | 50 | 100% |
| 2. | MARITAL STATUS | | |
| | Single | 4 | 8% |
| | Married | 46 | 92% |
| | TOTAL | 50 | 100% |
| 3. | LEVEL OF EDUCATION | | |
| | Primary | 17 | 34% |
| | Secondary | 30 | 60% |
| | College/University | 2 | 4% |
| | None | 1 | 2% |
| | TOTAL | 50 | 100% |
| 4. | RELIGION | | |
| | Christian | 50 | 100% |
| | Moslem | - | - |
| | Hindu | - | - |
| | Other | - | - |

| | | | |
|----|------------------------------|-----------|-------------|
| 5. | OCCUPATION | | |
| | Unemployed | 39 | 78% |
| | Informally employed | 3 | 6% |
| | Formally employed | 8 | 16% |
| | TOTAL | 50 | 100% |
| 6. | PARITY | | |
| | Nil | 16 | 32% |
| | 1 – 3 | 29 | 58% |
| | 4 – 6 | 5 | 10% |
| | TOTAL | 50 | 100% |
| 7. | AGE OF YOUNGEST CHILD | | |
| | Nil | 16 | 32% |
| | 1 – 2 years | 10 | 20% |
| | 3 – 4 years | 16 | 32% |
| | 5 – 6 years | 8 | 16% |
| | TOTAL | 50 | 100% |
| 8. | RESIDENCE | | |
| | M'tendere | 40 | 80% |
| | Kalingalinga | 1 | 2% |
| | Kalikiliki | 5 | 10% |
| | Hellen Kaunda | 4 | 8% |
| | TOTAL | 50 | 100% |

Table 2 shows that the majority (44%) of respondents were in the age group of 25 – 29 years. Most women (92%) were married.

The table further shows that majority (60%) of the women attained secondary level of education and only 2% of the respondents had not been to school. All the women (100%) were Christians. Majority (78%) of the women were unemployed.

The table also shows that 58% of women had 1 – 3 children and of the women who had children 32% had the youngest child aged between 3 and 4 years. The table also indicates that majority (80%) of women lived in M'tendere.

TABLE 3: WOMEN'S RESPONSE ON WHETHER THEY HAD HEARD ABOUT EXCLUSIVE BREAST-FEEDING

| RESPONSES | FREQUENCY | PERCENTAGE |
|--------------|-----------|-------------|
| Yes | 47 | 94% |
| No | 3 | 6% |
| TOTAL | 50 | 100% |

Table 3 shows that majority (94%) of respondents had heard about exclusive breast-feeding.

FIGURE 2: WOMEN'S SOURCE OF INFORMATION ON EXCLUSIVE BREAST-FEEDING

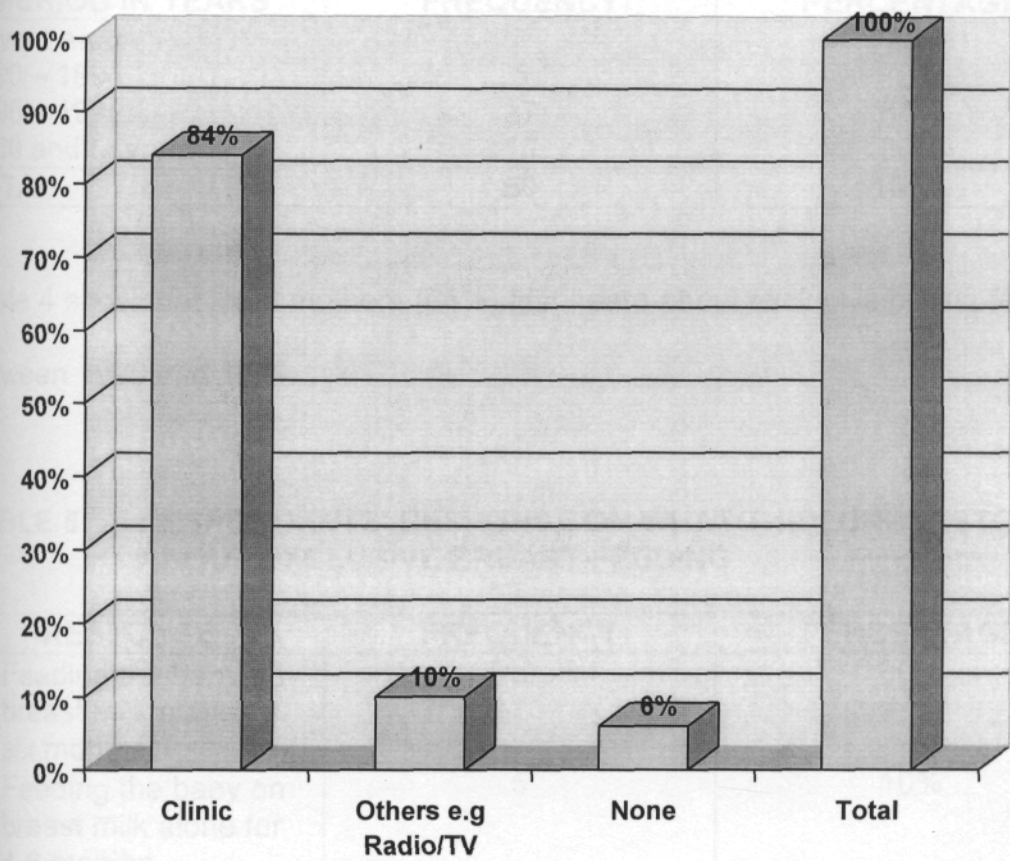


Figure 2 illustrates that the majority (84%) of respondents had heard about exclusive breast-feeding from the antenatal clinic.

TABLE 5: RESPONDENTS' RESPONSE ON WHETHER THEY HAD EVER RECEIVED INSTRUCTIONS ON EXCLUSIVE BREAST-FEEDING

| RESPONSES | FREQUENCY | PERCENTAGE |
|-----------|-----------|------------|
| Yes | 48 | 96% |
| No | 2 | 4% |
| TOTAL | 50 | 100% |

TABLE 4: RESPONDENTS' RESPONSE ON WHEN THEY FIRST HEARD ABOUT EXCLUSIVE BREAST-FEEDING

| PERIOD IN YEARS | FREQUENCY | PERCENTAGE |
|-----------------|-----------|-------------|
| Never heard | 3 | 6% |
| 1990 – 1994 | 5 | 10% |
| 1995 – 1999 | 27 | 54% |
| 2000 and beyond | 15 | 30% |
| TOTAL | 50 | 100% |

Table 4 show that most mothers (54%) first heard about exclusive breast-feeding between 1995 and 1999.

TABLE 5: RESPONDENTS' RESPONSE ON WHAT THEY UNDERSTOOD ABOUT EXCLUSIVE BREAST-FEEDING

| RESPONSE | FREQUENCY | PERCENTAGE |
|---|-----------|-------------|
| • Feeding the baby on breast milk alone for six months. | 40 | 80% |
| • Feeding the baby on breast milk alone for 4-6 months. | 5 | 10% |
| • Don't know | 5 | 10% |
| TOTAL | 50 | 100% |

Table 5 shows that 80% of the respondents understood exclusive breast-feeding as feeding a baby on breast milk alone for six (6) months and 10% did not know.

TABLE 6: RESPONDENTS' RESPONSE ON WHETHER THEY HAD EVER RECEIVED INSTRUCTIONS ON EXCLUSIVE BREAST-FEEDING

| RESPONSES | FREQUENCY | PERCENTAGE |
|--------------|-----------|-------------|
| Yes | 48 | 96% |
| No | 2 | 4% |
| TOTAL | 50 | 100% |

Table 6 indicates that the majority (96%) of respondents accepted having had received instructions on exclusive breast-feeding.

TABLE 7: RESPONDENTS' RESPONSE ON WHETHER THEY THOUGHT EXCLUSIVE BREAST-FEEDING WAS GOOD FOR A BABY

| RESPONSE | FREQUENCY | PERCENTAGE |
|--------------|-----------|-------------|
| Yes | 41 | 82% |
| No | 9 | 18% |
| TOTAL | 50 | 100% |

Table 7 shows that the majority (82%) of respondents thought that exclusive breast-feeding was good for a baby while 18% thought it wasn't.

TABLE 8: RESPONDENTS' KNOWLEDGE ON THE BENEFITS OF EXCLUSIVE BREAST-FEEDING

| LEVEL OF KNOWLEDGE | FREQUENCY | PERCENTAGE |
|--------------------|-----------|-------------|
| Knowledgeable | 47 | 94% |
| Not Knowledgeable | 3 | 6% |
| TOTAL | 50 | 100% |

Table 8 illustrates that the majority (94%) of the respondents were knowledgeable on the benefits of exclusive breast-feeding and only 6% were not knowledgeable.

TABLE 9: AGE IN RELATION TO KNOWLEDGE ABOUT EXCLUSIVE BREAST-FEEDING

| AGE | KNOWLEDGE | | TOTAL |
|--------------|-----------------|-------------------|------------------|
| | KNOWLEDGEABLE | NOT KNOWLEDGEABLE | |
| 15 – 19 | 6(12%) | 0 | 6 (12%) |
| 20 – 24 | 15(30%) | 0 | 15 (30%) |
| 25 – 29 | 20(40%) | 2 (4%) | 22 (44%) |
| 30 – 34 | 3(6%) | 1 (2%) | 4 (8%) |
| 34 - 39 | 3(6%) | 0 | 3 (6%) |
| TOTAL | 47 (94%) | 3 (6%) | 50 (100%) |

Table 9 shows that of the 94% of respondents who were knowledgeable about the benefits of exclusive breast-feeding, the majority (40%) were in the age group between 25 – 29 years. Of the 6% of those who were not knowledgeable, 4% were in the age group of 25 – 29 while 2% were in the age group of 30 – 34 years.

TABLE 10: SOURCE OF INFORMATION IN RELATION TO RESPONDENTS' KNOWLEDGE ABOUT EXCLUSIVE BREAST-FEEDING

| SOURCE OF INFORMATION | KNOWLEDGE | | TOTAL |
|-----------------------|-----------------|-------------------|------------------|
| | KNOWLEDGEABLE | NOT KNOWLEDGEABLE | |
| None | 0 | 3 (6%) | 3 (6%) |
| Health Centre | 42 (84%) | 0 | 42 (84%) |
| Other | 5 (10%) | 0 | 5 (10%) |
| TOTAL | 47 (94%) | 3 (6%) | 50 (100%) |

The table illustrates that of the 94% of respondents who were knowledgeable about exclusive breast-feeding, the majority (84%) had heard about it from the health center.

TABLE 11: EDUCATIONAL LEVEL IN RELATION TO AWARENESS ABOUT EXCLUSIVE BREAST-FEEDING

| EDUCATIONAL LEVEL | HEARD ABOUT EBF | | TOTAL |
|--------------------|-----------------|---------------|------------------|
| | YES | NO | |
| None | 1 (2%) | 0 | 1 (2%) |
| Primary | 14 (28%) | 3 (6%) | 17 (34%) |
| Secondary | 30 (60%) | 0 | 30 (60%) |
| College/University | 2 (4%) | 0 | 2 (4%) |
| TOTAL | 47 (94%) | 3 (6%) | 50 (100%) |

Table 11 shows that majority (58%) of respondents who had attained secondary level of education had heard about exclusive breast feeding. Only 2% of the respondents had not been to school but were aware of exclusive breast feeding.

TABLE 12: EDUCATIONAL LEVEL IN RELATION TO KNOWLEDGE ABOUT THE BENEFITS OF EXCLUSIVE BREAST-FEEDING

| EDUCATIONAL LEVEL | KNOWLEDGE ON THE BENEFITS OF EBF | | TOTAL |
|--------------------|----------------------------------|-------------------|------------------|
| | KNOWLEDGEABLE | NOT KNOWLEDGEABLE | |
| None | 1 (2%) | 0 | 1 (2%) |
| Primary | 14 (28%) | 3 (6%) | 17 (34%) |
| Secondary | 30 (60%) | 0 | 30 (60%) |
| College/University | 2 (4%) | 0 | 2 (4%) |
| TOTAL | 47 (94%) | 3 (6%) | 50 (100%) |

Table 12 shows that majority (60%) of respondents had attained secondary level of education and all of them were knowledgeable about the benefits of exclusive breast-feeding. 34% had attained primary level of education and of these, 28% were knowledgeable while only 6% were not.

TABLE 13: AGE OF YOUNGEST CHILD IN RELATION TO KNOWLEDGE ON THE BENEFITS OF EXCLUSIVE BREAST-FEEDING

| AGE OF YOUNGEST CHILD | KNOWLEDGE ON THE BENEFITS OF EBF | | TOTAL |
|-----------------------|----------------------------------|-------------------|------------------|
| | KNOWLEDGEABLE | NOT KNOWLEDGEABLE | |
| Nil | 16 (32%) | 0 | 16 (32%) |
| 1 – 2 years | 10 (20%) | 0 | 10 (20%) |
| 3 – 4 years | 14 (28%) | 2 (4%) | 16 (32%) |
| 5 – 6 years | 7 (14%) | 1 (2%) | 8 (16%) |
| TOTAL | 47 (94%) | 3 (6%) | 50 (100%) |

The table shows that majority (32%) of respondents who were knowledgeable about exclusive breast-feeding had no child, 28% had the youngest child age between 3 – 4 years.

TABLE 14: KNOWLEDGE ABOUT EXCLUSIVE BREAST-FEEDING IN RELATION TO PERIOD WHEN RESPONDENT FIRST HEARD ABOUT EBF

| KNOWLEDGE | PERIOD WHEN FIRST HEARD ABOUT EBF | | | | TOTAL |
|-------------------|-----------------------------------|----------------|-----------------|-----------------|------------------|
| | NEVER HEARD | 1990 – 94 | 1995 – 99 | 2000 and beyond | |
| Knowledgeable | 2 (4%) | 4 (8%) | 26 (52%) | 15 (30%) | 47 (94%) |
| Not Knowledgeable | 1 (2%) | 1 (2%) | 1 (2%) | 0 | 3 (6%) |
| TOTAL | 3 (6%) | 5 (10%) | 27 (54%) | 15 (30%) | 50 (100%) |

Table 14 shows that of the 94% of respondents who were knowledgeable about the benefits of exclusive breast-feeding majority (52%) first heard about it between 1995 and 1999.

TABLE 15: RESPONDENTS' RESPONSE ON WHETHER A BABY MUST BE GIVEN BREAST MILK ALONE FOR 6 MONTHS

| RESPONSE | FREQUENCY | PERCENTAGE |
|--------------|-----------|-------------|
| Yes | 36 | 72% |
| No | 14 | 28% |
| TOTAL | 50 | 100% |

The table shows that the majority (72%) of respondents said that a baby must be given breast milk alone from birth to six months while the rest (28%) said no.

TABLE 16: ATTITUDES OF RESPONDENTS TOWARDS EXCLUSIVE BREAST FEEDING

| ATTITUDE TOWARD EBF | FREQUENCY | PERCENTAGE |
|---------------------|-----------|-------------|
| Positive attitude | 36 | 72% |
| Negative attitude | 14 | 28% |
| TOTAL | 50 | 100% |

Table 16 illustrates that majority (72%) of the respondents had a positive attitude towards exclusive breast-feeding and 28% had a negative attitude.

TABLE 17: ATTITUDE TOWARDS EXCLUSIVE BREAST FEEDING IN RELATION TO WHETHER RESPONDENT EVER PRACTICED IT OR NOT

| PRACTICE | ATTITUDE | | TOTAL |
|-----------------|-----------------|-----------------|------------------|
| | POSITIVE | NEGATIVE | |
| Practiced | 18 (36%) | 0 | 18 (36%) |
| Never Practiced | 18 (36%) | 14 (28%) | 32 (64%) |
| TOTAL | 36 (72%) | 14 (28%) | 50 (100%) |

Table 17 shows that all the 36% of respondents who had practiced exclusive breast-feeding before had a positive attitude towards it. Of those who had never practiced it before, majority (36%) had a positive attitude, but 28% of the respondents who have never practiced exclusive breast-feeding had a negative attitude towards it.

TABLE 18: RESPONDENTS' KNOWLEDGE IN RELATION TO ATTITUDE

| KNOWLEDGE | ATTITUDE | | TOTAL |
|-------------------|-----------------|-----------------|------------------|
| | POSITIVE | NEGATIVE | |
| Knowledgeable | 36 (72%) | 11 (22%) | 47 (94%) |
| Not knowledgeable | 0 | 3 (6%) | 3 (6%) |
| TOTAL | 36 (72%) | 14 (28%) | 50 (100%) |

Table 18 shows that of the respondents who were knowledgeable about exclusive breast-feeding, the majority (72%) had a positive attitude about it while 22% had a negative attitude. All the respondents who were not knowledgeable had a negative attitude.

TABLE 19: RESPONDENTS' RESPONSE ON WHETHER THEY EXCLUSIVELY BREAST FEED THEIR BABIES

| RESPONSES | FREQUENCY | PERCENTAGE |
|-----------|-----------|------------|
| Yes | 17 | 34% |
| No | 33 | 66% |
| TOTAL | 50 | 100% |

Table 19 illustrates that the majority of respondents (66%) did not exclusively breast feed their babies while 34% did.

FIGURE 3: RESPONDENTS' RESPONSE ON HOW LONG THEY EXCLUSIVELY BREAST FEED THEIR BABIES

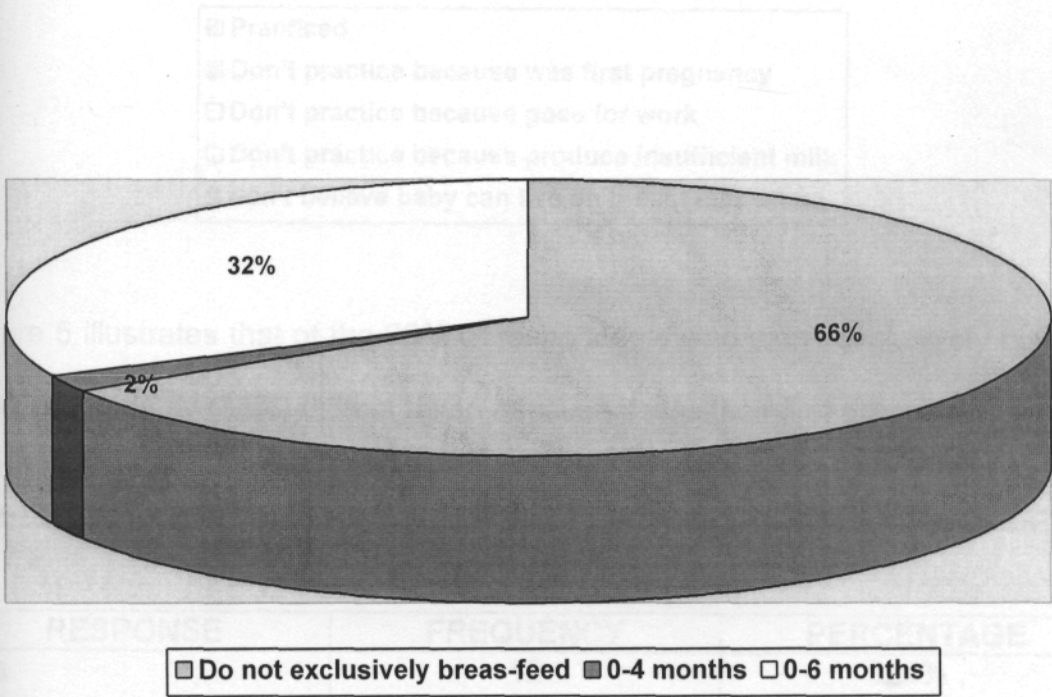


Figure 4 shows that majority of the respondents (66%) did not exclusively breast-feed while 32% exclusively breast fed for 6 months and 2% did so for 4 months.

FIGURE 4: RESPONDENTS' REASONS FOR NOT PRACTICING EXCLUSIVE BREAST-FEEDING

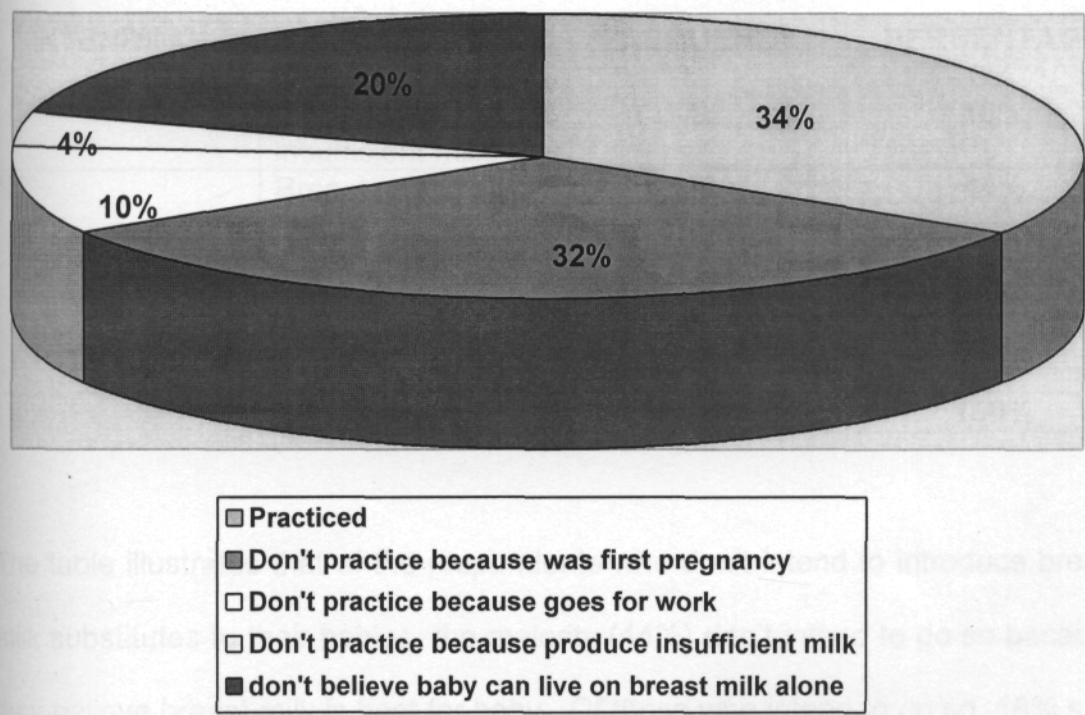


Figure 5 illustrates that of the 66% of respondents who didn't exclusively breast-feed, the majority (32%) did not do so because it was their first pregnancy.

TABLE 20: RESPONDENTS' RESPONSE ON WHETHER THEY INTENDED TO INTRODUCE BREAST MILK SUBSTITUTES

| RESPONSE | FREQUENCY | PERCENTAGE |
|----------|-----------|------------|
| Yes | 12 | 24% |
| No | 38 | 76% |
| TOTAL | 50 | 100% |

Table 20 shows that the majority (76%) of respondents did not intend to introduce breast milk substitutes to their babies before six months while 24% intended to do so.

TABLE 21: RESPONDENTS' REASONS FOR INTENDING AND NOT INTENDING TO INTRODUCE BREAST MILK SUBSTITUTES

| INTENDING | REASON | FREQUENCY | PERCENTAGE |
|-----------|--------------------------------|-----------|------------|
| YES | Goes for work. | 3 | 6% |
| | It produces insufficient milk. | 9 | 18% |
| NO | Breast milk is best for baby. | 22 | 44% |
| | Can't afford substitutes. | 7 | 14% |
| | Always at home to breast feed. | 9 | 18% |
| TOTAL | | 50 | 100% |

The table illustrates that of the respondents who don't intend to introduce breast milk substitutes to their babies, the majority (44%) don't intend to do so because they believe breast milk is best for baby. Of those who intend to do so, 18% said they would do so only if they produced insufficient breast milk.

TABLE 22: RESPONDENTS' RESPONSES ON THE AGE AT WHICH THEY INTEND TO INTRODUCE THEIR BABIES TO BREAST MILK SUBSTITUTES

| RESPONSE | FREQUENCY | PERCENTAGE |
|--------------|-----------|------------|
| Don't Intend | 38 | 76% |
| 0 – 1 month | 2 | 4% |
| 2 – 3 months | 5 | 10% |
| 4 – 5 months | 5 | 10% |
| TOTAL | 50 | 100% |

Table 22 shows that of the respondents who intended to introduce breast milk substitutes to their babies, 10% intended to do between 2 – 3 months and another 10% between 4 – 5 months. Only 4% intended to do so between 0 – 1 month.

TABLE 23: RESPONDENTS' RESPONSES ON WHETHER THEY GAVE WATER TO BREAST FEEDING BABIES BEFORE SIX MONTHS

| RESPONSE | FREQUENCY | PERCENTAGE |
|--------------|-----------|-------------|
| Yes | 19 | 38% |
| No | 31 | 62% |
| TOTAL | 50 | 100% |

Table 23 shows that majority (62%) of the respondents did not give water to their babies before six months.

TABLE 24: RESPONDENTS' REASONS FOR GIVING AND NOT GIVING WATER TO A BREAST-FEEDING BABY BEFORE SIX MONTHS

| GIVE WATER BEFORE SIX MONTHS | REASON | FREQUENCY | PERCENTAGE |
|------------------------------|---|-----------|-------------|
| YES | • Baby cries too much (sign that it is thirsty) | 4 | 8% |
| | • Baby needs water for digestion | 15 | 30% |
| NO | • First pregnancy | 9 | 18% |
| | • Breast milk contains water | 13 | 26% |
| | • Water can cause diarrhoea | 9 | 18% |
| TOTAL | | 50 | 100% |

Table 24 illustrates that of the respondents who gave water to their babies, the majority (30%) did so because the babies needed water for digestion just like any other person. Of those who did not give water, most of them said that they did not give their babies water because breast milk contains water as well.

TABLE 25: RESPONDENTS' RESPONSES ON WHETHER THEY GAVE SOLIDS TO A BREAST-FEEDING BABY BEFORE SIX MONTHS

| RESPONSE | FREQUENCY | PERCENTAGE |
|--------------|-----------|-------------|
| Yes | 13 | 26% |
| No | 37 | 74% |
| TOTAL | 50 | 100% |

Table 25 illustrates that the majority (74%) of respondents did not give solids to a breast-feeding baby before six months.

TABLE 26: RESPONDENTS' PRACTICE IN RELATION TO KNOWLEDGE

| PRACTICE | KNOWLEDGE | | TOTAL |
|---------------|-----------------|-------------------|------------------|
| | KNOWLEDGEABLE | NOT KNOWLEDGEABLE | |
| Practiced | 17 (34%) | 0 | 17 (34%) |
| Not Practiced | 30 (60%) | 3 (6%) | 33 (66%) |
| TOTAL | 47 (94%) | 3 (6%) | 50 (100%) |

The table illustrates all the respondents (34%) who practiced exclusive breast-feeding were knowledgeable. 60% of the respondents who did not practice exclusive breast-feeding were knowledgeable and only 6% were not knowledgeable.

TABLE 27: KNOWLEDGE IN RELATION TO INTENTION TO INTRODUCE BREAST MILK SUBSTITUTES

| KNOWLEDGE | INTEND | | TOTAL |
|-------------------|-----------------|-----------------|------------------|
| | YES | NO | |
| Knowledgeable | 12 (24%) | 35 (70%) | 47 (94%) |
| Not Knowledgeable | 0 | 3 (6%) | 3 (6%) |
| TOTAL | 12 (24%) | 38 (76%) | 50 (100%) |

The table shows that of the respondents who were knowledgeable, the majority (70%) did not intend to introduce breast milk substitutes to their babies.

TABLE 28: EDUCATIONAL LEVEL IN RELATION TO PRACTICE

| EDUCATIONAL LEVEL | PRACTICE | | TOTAL |
|--------------------|-----------------|-----------------|------------------|
| | PRACTICED | NOT PRACTICED | |
| None | 1 (2%) | 0 | 1 (2%) |
| Primary | 7 (14%) | 10 (20%) | 19 (34%) |
| Secondary | 9 (18%) | 21 (42%) | 30 (60%) |
| College/University | 0 | 2 (4%) | 2 (4%) |
| TOTAL | 17 (34%) | 33 (66%) | 50 (100%) |

The table illustrates that majority (42%) of respondents who attained secondary level of education did not practice exclusive breast feeding while only 18% did so.

TABLE 29: DURATION OF EXCLUSIVE BREAST FEEDING IN RELATION TO KNOWLEDGE

| DURATION OF EBF | KNOWLEDGE | | TOTAL |
|----------------------------|-----------------|-------------------|------------------|
| | KNOWLEDGEABLE | NOT KNOWLEDGEABLE | |
| Not exclusively breast fed | 30 (60%) | 3 (6%) | 33 (66%) |
| 0 – 4 months | 1 (2%) | 0 | 1 (2%) |
| 0 – 6 months | 16 (32%) | 0 | 16 (32%) |
| TOTAL | 47 (94%) | 3 (6%) | 50 (100%) |

The table shows that the majority (60%) of mothers who are knowledgeable did not exclusively breast feed while only 32% exclusively breast fed for 6 months.

TABLE 30: PRACTICE IN RELATION TO DURATION OF EXCLUSIVE BREAST-FEEDING

| PRACTICE | DURATION OF EXCLUSIVE BREAST FEEDING | | | TOTAL |
|---------------|--------------------------------------|---------------|-----------------|------------------|
| | DO NOT EXCLUSIVELY B/F | 0-4 MONTHS | 0-6 MONTHS | |
| Practiced | 0 | 1 (2%) | 16 (32%) | 17 (34%) |
| Not Practiced | 33 (66%) | 0 | 0 | 33 (66%) |
| TOTAL | 33 (66%) | 1 (2%) | 16 (32%) | 50 (100%) |

Table 35 shows that majority (66%) of respondents did not exclusively breast feed. 32% of the respondents exclusively breast fed for 6 months. Only 2% of the respondents exclusively breast fed for 4 months.

TABLE 31: PRACTICE IN RELATION TO SOURCE OF INFORMATION

| PRACTICE | SOURCE OF INFORMATION | | | TOTAL |
|---------------|-----------------------|-----------------|----------------|------------------|
| | NONE | HEALTH CENTRE | OTHER | |
| Practiced | 0 | 17 (34%) | 0 | 17 (34%) |
| Not Practiced | 3 (6%) | 25 (50%) | 5 (10%) | 33 (66%) |
| TOTAL | 3 (6%) | 42 (84%) | 5 (10%) | 50 (100%) |

The table illustrates that 50% of the respondents who did not practice exclusive breast-feeding got the information from the health center. 34% of those who practiced heard about exclusive breast feeding from the health center.

TABLE 32: PARITY IN RELATION TO PRACTICE

| PARITY | PRACTICE | | TOTAL |
|----------------|-----------------|-----------------|------------------|
| | PRACTICED | NOT PRACTICED | |
| Nil | 1 (2%) | 15 (30%) | 16 (32%) |
| 1 – 3 children | 15 (30%) | 14 (28%) | 29 (58%) |
| 4 – 6 children | 1 (2%) | 4 (8%) | 5 (10%) |
| TOTAL | 17 (34%) | 33 (66%) | 50 (100%) |

The table shows that majority (30%) of respondents who practiced exclusive breast-feeding had 1-3 children while another 30% of those who did not practice exclusive breast-feeding had no children.

TABLE 33: PARITY IN RELATION TO KNOWLEDGE

| PARITY | KNOWLEDGE | | TOTAL |
|--------------|-----------------|-------------------|------------------|
| | KNOWLEDGEABLE | NOT KNOWLEDGEABLE | |
| Nil | 16 (32%) | 0 | 16 (32%) |
| 1 – 3 | 27 (54%) | 2 (4%) | 29 (58%) |
| 4 – 6 | 4 (8%) | 1 (2%) | 5 (10%) |
| TOTAL | 47 (94%) | 3 (6%) | 50 (100%) |

The table shows that majority (54%) of respondents who were knowledgeable about exclusive breast-feeding had 1 – 3 children.

TABLE 34: PRACTICE IN RELATION TO AGE OF RESPONDENTS

| PRACTICE | AGE | | | | | TOTAL |
|---------------|----------------|-----------------|-----------------|---------------|---------------|------------------|
| | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | |
| Practiced | 1 (2%) | 6 (12%) | 9 (18%) | 1 (2%) | 0 | 17 (34%) |
| Not Practiced | 5 (10%) | 9 (18%) | 13 (26%) | 3 (6%) | 3 (6%) | 33 (66%) |
| TOTAL | 6 (12%) | 15 (30%) | 22 (44%) | 4 (8%) | 3 (6%) | 50 (100%) |

The table illustrates that majority (26%) of respondents did not exclusively breast feed their babies and were aged between 25 – 29 years. Only 18% of the respondents within the same age group exclusively breast feed their babies.

TABLE 35: PRACTICE IN RELATION TO RESPONSES ON WHETHER A MOTHER SHOULD STOP/CONTINUE BREAST-FEEDING IF SHE CONCEIVED

| PRACTICE | SHOULD A MOTHER STOP/CONTINUE TO BREAST FEED IF SHE CONCEIVED? | | TOTAL |
|---------------|--|-----------------|------------------|
| | YES | NO | |
| Practiced | 10 (20%) | 7 (14%) | 17 (34%) |
| Not Practiced | 18 (36%) | 15 (30%) | 33 (66%) |
| TOTAL | 28 (56%) | 22 (44%) | 50 (100%) |

Table 35 illustrates that majority (36%) of respondents who did not practice exclusive breast feeding stated that a mother should stop breast feeding if she conceived. 30% of those who did not practice exclusive breast feeding said a mother should not stop breast feeding if she conceived. 20% of those who practiced exclusive breast feeding stated that a mother should continue exclusive breast feeding if she conceived.

TABLE 36: PRACTICE IN RELATION TO REASONS FOR CONTINUING OR STOPPING TO BREAST FEED IF A MOTHER CONCEIVED

| REASONS | PRACTICE | | TOTAL |
|--|-----------------|-----------------|------------------|
| | PRACTICED | NOT PRACTICED | |
| • Discontinue because tradition says so. | 10 (20%) | 16 (32%) | 26 (52%) |
| • Continue because if stopped baby can suffer from malnutrition. | 2 (4%) | 7 (14%) | 9 (18%) |
| • Continue because there is no effect on the baby. | 4 (8%) | 5 (10%) | 9 (18%) |
| • Continue because the baby still needs breast milk. | 1 (2%) | 2 (4%) | 3 (6%) |
| • Don't know | 0 | 3 (6%) | 3 (6%) |
| TOTAL | 17 (34%) | 33 (66%) | 50 (100%) |

Table 36 shows that majority (38%) of respondents who did not practice exclusive breast-feeding said that mothers should stop breast-feeding if they conceived because tradition says so whilst 20% of those who practiced exclusive breast feeding also gave the same reason.

TABLE 37: PRACTICE IN RELATION TO RESPONSES WHETHER THE RESPONDENTS EXPERIENCED PROBLEMS IN INITIATING BREAST-FEEDING

| PRACTICE | EXPERIENCED PROBLEMS | | TOTAL |
|---------------|----------------------|-----------------|------------------|
| | YES | NO | |
| Practiced | 3 (6%) | 14 (28%) | 17 (34%) |
| Not Practiced | 2 (4%) | 31 (62%) | 33 (66%) |
| TOTAL | 5 (10%) | 45 (90%) | 50 (100%) |

Table 37 shows that majority (68%) of respondents who did not practice exclusive breast-feeding did not experience problems in initiating breast-feeding while 28% of those who practiced exclusive breast feeding did not experience

any problem in initiating breast feeding. Only 6% of those who practiced exclusive breast feeding experienced problems.

TABLE 38: PRACTICE IN RELATION TO RESPONSES ON WHETHER THE RESPONDENTS GAVE WATER TO BREAST-FEEDING BABIES BEFORE 6 MONTHS

| PRACTICE | GAVE WATER | | TOTAL |
|---------------|-----------------|-----------------|------------------|
| | YES | NO | |
| Practiced | 2 (4%) | 15 (30%) | 17 (34%) |
| Not Practiced | 17 (34%) | 16 (32%) | 33 (66%) |
| TOTAL | 19 (38%) | 31 (62%) | 50 (100%) |

Table 38 shows that majority (42%) of respondents who did not practice exclusive breast-feeding gave water to a breast-feeding baby before six (6) months while majority (30%) of those who practiced exclusive breast-feeding did not give water to breast-feeding babies before six months, but 4% of those who practiced exclusive breast-feeding gave water to babies before 6 months.

TABLE 39: PRACTICE IN RELATION TO RESPONSES ON WHETHER THE RESPONDENTS GAVE SOLIDS TO A BREAST-FEEDING BABY BEFORE SIX (6) MONTHS

| PRACTICE | GAVE SOLIDS | | TOTAL |
|---------------|----------------|-----------------|------------------|
| | YES | NO | |
| Practiced | 1 (2%) | 16 (32%) | 17 (34%) |
| Not Practiced | 6 (12%) | 27 (54%) | 33 (66%) |
| TOTAL | 7 (14%) | 43 (86%) | 50 (100%) |

The table shows that majority (54%) of the respondents who did not practice exclusive breast-feeding gave solids to a breast-feeding baby before six (6)

months while 32% of those who practiced exclusive breast-feeding did not give solids to a breast-feeding baby before six months.

TABLE 40: ATTITUDE IN RELATION TO SOURCE OF INFORMATION

| ATTITUDE | SOURCE OF INFORMATION | | | TOTAL |
|-------------------|-----------------------|-----------------|----------------|------------------|
| | NONE | HEALTH CENTRE | OTHER | |
| Positive Attitude | 0 | 32 (64%) | 4 (8%) | 36 (72%) |
| Negative Attitude | 3 (6%) | 10 (20%) | 1 (2%) | 14 (28%) |
| TOTAL | 3 (6%) | 42 (84%) | 5 (10%) | 50 (100%) |

Table 40 indicates that majority (64%) of respondents who had a positive attitude towards exclusive breast-feeding heard about it from the health center. 20% of those with a negative attitude toward exclusive breast-feeding had also heard from the health centre.

TABLE 41: RESPONDENTS' RESPONSES ON HOW SOON THEY WOULD PUT THEIR BABIES TO THE BREAST AFTER DELIVERY

| RESPONSE | FREQUENCY | PERCENTAGE |
|----------------------|-----------|-------------|
| Less than 30 minutes | 39 | 78% |
| 30 – 60 minutes | 9 | 18% |
| 1 – 2 hours | 2 | 4% |
| TOTAL | 50 | 100% |

The table illustrates that majority (78%) of the respondents said that they would put their babies to the breast in less than 30 minutes, 18% would do so in 30 – 60 minutes' time and 4% in 1-2 hours.

TABLE 42: RESPONDENTS' RESPONSES ON WHETHER THEY EXPERIENCED PROBLEMS IN INITIATING BREAST-FEEDING

| RESPONSE | FREQUENCY | PERCENTAGE |
|----------|-----------|------------|
| Yes | 5 | 10% |
| No | 45 | 90% |
| TOTAL | 50 | 100% |

Table 42 shows that majority (90%) of respondents did not experience any problem in initiating breast-feeding.

TABLE 43: RESPONDENTS' RESPONSES ON WHETHER A MOTHER SHOULD STOP BREAST-FEEDING IF SHE CONCEIVES

| RESPONSE | FREQUENCY | PERCENTAGE |
|----------|-----------|------------|
| Yes | 28 | 56% |
| No | 22 | 44% |
| TOTAL | 50 | 100% |

Table 43 shows that the majority (56%) of respondents said that a mother should stop breast-feeding if she conceived and 44% said no.

TABLE 44: RESPONDENTS' REASONS FOR CONTINUING/STOPPING TO BREAST FEED IF A MOTHER CONCEIVES

| RESPONSE | FREQUENCY | PERCENTAGE |
|--|-----------|------------|
| • Discontinue because tradition says so. | 26 | 52% |
| • Continue because if stopped the baby can suffer from malnutrition. | 9 | 18% |
| • Continue because there is no effect. | 9 | 18% |
| • Continue because baby still needs breast milk | 3 | 6% |
| • Don't know. | 3 | 6% |
| TOTAL | 50 | 100% |

Table 44 shows that majority (52%) of respondents said that a mother should discontinue breast-feeding if she conceived because it is believed traditionally that the baby would become sick. 18% said that a mother should continue because there was no effect on the baby and another 18% said that a mother should continue because if she stopped, the baby would suffer from malnutrition.

TABLE 45: SUGGESTIONS ON WAYS TO ENCOURAGE MORE MOTHERS TO EXCLUSIVELY BREAST FEED THEIR BABIES

| RESPONSE | FREQUENCY | PERCENTAGE |
|---|-----------|-------------|
| • Continue giving IEC during ANC. | 26 | 52% |
| • Through Radio/TV broadcasts. | 4 | 8% |
| • Encourage mothers to share information. | 1 | 2% |
| • No idea | 19 | 38% |
| TOTAL | 50 | 100% |

Table 45 shows that the majority of respondents (52%) suggested that IEC should continue during antenatal clinic as a way of encouraging more mothers to exclusively breast-feed while 38% had no idea.

CHAPTER FIVE

5.0 DISCUSSION OF FINDINGS

5.1 INTRODUCTION

The study was aimed at determining knowledge, attitudes and practice of antenatal mothers towards exclusive breast-feeding.

The results were based on the analysis of the responses from 50 respondents drawn from M'tendere health centre.

5.2 SOCIO DEMOGRAPHIC DATA

The demographic data (Table 2, p34) revealed that the majority (44%) of the respondents were in the age group of 25-29 years, and 30% were in the group of 20-24 years. This indicated that the study sample consisted young mothers. These were in the active reproductive age hence the need to assess their knowledge, attitude and practice towards exclusive breast-feeding.

Majority (92%) of the respondents were married and only 8% were single. This could be related to the fact that every Zambian woman wanted to get married as marriage is universal in the Zambian culture.

The educational level of most women (60%) was secondary, 34% had primary level of education while a small proportion (4%) had attained college/university education. Only 2% had never been to school. This could be attributed to the fact that the government of the republic of Zambia is putting more emphasis on girl child education hence more girls are getting educated. However, all (100%) the respondents were Christians. Most (78%) of the respondents were unemployed. About 16% were in formal employment and 31% were in informal employment. A large number of the respondents were unemployed because the Zambian labour market is saturated and only people who have attained college or university education are employed in the formal sector.

The demographic data further revealed that 58% of the respondents had 1-3 children, 32% had no children and 10% had 4-6 children. This implied that those with 1-3 children and those with no children are more likely to bear more children hence would need more knowledge and support to exclusively breast-feed their babies to enhance good health.

In terms of where the respondents lived, 80% lived in M'tendere. The majority of women who attended antenatal clinic at M'tendere health centre came from within the area (Table 1, p14).

5.3 KNOWLEDGE ON EXCLUSIVE BREAST-FEEDING

The study findings showed that a total of 94% of respondents had heard about the benefits of exclusive breast-feeding while only 6% had not (Table 3, p36). This implied that there was an increase in awareness about exclusive breast-feeding as compared to the 1998 findings of Nyimbili R.P in a study to determine factors contributing to low sustenance of exclusive breast-feeding among mothers in Lusaka where he found that only 78.3% of respondents had heard about exclusive breast-feeding.

About 84% had heard about exclusive breast-feeding from the health centre and 10% heard from other sources like the media (Figure 2, p37). This suggests that the health centres were more active in delivering IEC to antenatal women about the benefits of exclusive breast-feeding.

The study further indicated that majority (94%) of the respondents were knowledgeable about the benefits of exclusive breast-feeding while only 6% were not (Table 8, p39). This implied that women who had heard about exclusive breast-feeding were also knowledgeable about the benefits of it.

Ninety four percent of the respondents were knowledgeable about the benefits of exclusive breast-feeding and most (84%) of them had heard

about exclusive breast-feeding from the health centre (Table 10, p40). This imply that women who attended antenatal clinic regularly are taught on the benefits of exclusive breast-feeding. This is supported by an evaluation report of the breast-feeding practices in hospital and committies where similar results were found by Hambayi in 1997.

The study also sought to establish the relationship between respondents' level of education and the knowledge on the benefits of exclusive breast-feeding (Table 12, p41). It was found that the level of education had a significant relationship with the knowledge about the benefits of exclusive breast-feeding because all (60%) of the respondents who had attained secondary level of education were knowledgeable and all (4%) those who had attained college/university education were also knowledgeable. Therefore this entails that women with a high level of education are more likely to understand the concepts of exclusive breast-feeding than those with a low educational background. However, this contradicts the findings of a study by Chipaya E.S (2000) who sought to determine the factors affecting productivity among breast-feeding working mothers. In this study it was found that educational level did not have a significant effect on the level of knowledge on the benefits of exclusive breast-feeding because there was a high percentage of the respondents with inadequate knowledge among those who had secondary level of education as well as among those who had attained college/university education.

The study further showed that majority (40%) of respondents who were knowledgeable about the benefits of exclusive breast-feeding were in the age group of 25-29 years (Table 9, p40). This could be due to the fact that those were in the active reproductive age and were more likely to have had children before hence were already exposed to the information on the subject because IEC was given routinely during antenatal clinic.

In terms of age of youngest child in relation to knowledge about the benefits of exclusive breast-feeding, the study revealed that majority (32%) of respondents who were knowledgeable had no children (Table 13, p42). Many of these were pregnant for the first time. This implies that all women who visited the health centre for antenatal care regardless whether they were pregnant for the first time or not, ~~they~~ were exposed to the IEC about exclusive breast-feeding.

The findings also suggests that of the 94% of respondents who were knowledgeable, majority (52%) first heard about the benefits of exclusive breast-feeding between 1995 and 1999 (Table 14, p42). This could mean that most of these women had their first pregnancies within this range and became exposed when they first attended antenatal as IEC about the benefits of exclusive breast-feeding was mostly disseminated at the health centre.

Majority (54%) of the respondents who were knowledgeable about the benefits of exclusive breast-feeding had 1-3 children (Table 33, p52). The study further revealed that 30% of those who had 1-3 children practiced exclusive breast-feeding (Table 32, p52). This implied that these mothers benefited from exclusive breast-feeding as they could also have employed it as a method of contraception as it enhances the spacing between pregnancies and helps couples to have the required number of children they could comfortably manage to look after.

The study findings showed that the majority (60%) respondents who were knowledgeable about the benefits of exclusive breast-feeding did not exclusively breast-feed while only 32% did so for six months (Table 29, p50). This is in line with the study conducted by Steel A. (1996) on mothers' knowledge and practice of exclusive breast-feeding in the catchment areas of Kanyama, Chipata and Chilenje health centres in Lusaka where it was discovered that 58% of infants aged 0-3 months had already been given breast^{milk} with supplements.

5.4 ATTITUDE TOWARDS EXCLUSIVE BREAST-FEEDING

The study findings revealed that majority (72%) of the respondents said that a baby must be given breast milk alone as food from birth to six months (Table 15, p43). The main reason given was that breast milk contains all the nutrients a baby needs for growth. The findings further revealed that majority (72%) of the respondents had a positive attitude towards exclusive breast-feeding while 28% had negative attitude (Table 16, p43).

This is contrary to N'gona P.C. (1996) findings in a study conducted to determine knowledge, attitudes and practice of marketeers towards exclusive breast-feeding in Lusaka Urban District in which the majority (60%) had a negative attitude. This positive change could be attributed to the increased awareness about the benefits of exclusive breast-feeding.

The findings further showed that all the 36% of respondents who had practiced exclusive breast-feeding before had a positive attitude towards it (Table 17, p44). This could mean that the respondent with a positive attitude know the benefits of exclusive breast-feeding on their babies, hence developed the positive attitude.

All the 72% of the respondents who had a positive attitude were knowledgeable about the benefits of exclusive breast-feeding (Table 18, p44). This implies that the increased awareness enhanced increased knowledge about the benefits of exclusive breast-feeding hence the positive attitude.

The study findings further revealed that majority (64%) of respondents who had a positive attitude had heard about exclusive breast-feeding from the health centre (Table 40, p56). This could mean that the continued and increased dissemination of IEC about exclusive breast-feeding at the health centres contributed to the positive change in mothers' attitude towards exclusive breast-feeding. Majority (8%) of those who had heard about exclusive breast-feeding from other sources also had a positive attitude towards exclusive breast-feeding. This meant that IEC through other sources like the media also played a role in making mothers' attitude towards exclusive breast-feeding positive.

5.5 PRACTICE TOWARD EXCLUSIVE BREAST-FEEDING

Majority (66%) did not exclusively breast feed their babies while 34% did (Table 19, p45). It was surprising to find out that despite the increased awareness, only a few practiced exclusive breast-feeding. Supportively, studies on child feeding practices show that world-wide, exclusive breast-feeding is rare and early supplementation with water, juices and other

fluids is the norm (Ashraf et al 1993). The 1995 ZDHS show that only 13% of infants under two (2) months were exclusively breast fed compared to 16% in 1992.

However, of those who practiced exclusive breast-feeding, majority (32%) exclusively breast fed for six months and 2% did so for four months (Figure 3, p45). To the contrary, the 1994 World Paediatric Demographic Health Survey revealed that 71% of infants aged 0-4 months were not breast fed exclusively during the first 4 months of life.

The respondents who did not practice exclusive breast-feeding gave various reasons (Figure 4, p46). The majority (32%) had not practiced exclusive breast-feeding because they were pregnant for the first time. About 20% said that they did not believe a baby could live on breast milk alone, 10% said that they did not because they were in employment.

The study further revealed that majority (76%) of respondents did not intend to introduce breast milk substitutes to the babies when they deliver while 24% intended to do so. About 44% did not intend because they believed breast milk is best for baby, 18% said they were always at home to breast feed and 14% said they couldn't afford to buy substitutes. This implied that if information, education and communication about exclusive breast-feeding were intensified, more mothers would stop giving breast

milk substitutes to their babies. Majority (18%) of those who intended to give breast milk substitutes said that they would do so if they produced insufficient breast milk and majority (10%) would do so at the age of 2-3 months (Table 20 - p46, 21- p 47 and 22 - p47).

Majority (62%) of respondents did not give water to their babies before six months while 38% did. Those who did not, gave various reasons. For example 18% said water caused diarrhoea and that breast milk also contained adequate water for the baby (Tables 23, p48 and 24, p48). There was general perception that the infant needs additional fluids especially water to maintain water balance. In a study from India, it was found that 97% of nurses and 63% of doctors believed that water supplementation was necessary in the summer (Sachder et al, 1991). Other studies on water supplementation in Peru have similarly shown that exclusive breast fed infants do maintain adequate hydration states even in warm climates (Brown et al, 1986). Therefore, breast milk alone can maintain adequate water balance in the young infant and supplementary fluids are therefore not needed.

Majority (78%) of the respondents said that they would put their babies to the breast in less than 30 minutes after they delivered (Table 41, p56). WHO had developed guide lines to health interventions for safe motherhood entitled the mother-baby package. The guidelines are the

minimum levels of care that all pregnant women and new borns should receive and advocates putting the new to the breast as soon as possible after birth and exclusively breast feed (safe motherhood newsletter, 1994).

The study findings revealed that of the respondents who practiced exclusive breast-feeding, no one had attained college/university education while only 18% had attained secondary level of education. Furthermore, all (4%) of those who attained college/university education did not practice exclusive breast-feeding and 60% attained secondary level of education but did not practice exclusive breast-feeding (Table 28, p50). This implies that educational level did not influence the practice of exclusive breast-feeding though it enhanced the understanding of the concept.

The study further revealed a relationship between practice and duration of exclusive breast-feeding. Majority (32%) of those who practiced did so for six (6) months while only 2% of the respondents exclusively breast fed for 4 months (Table 30, p51). The increase in the duration of exclusive breast-feeding practice could be attributed to the increased promotion efforts. Wide spread breast feeding promotion efforts in the USA have been successful in raising national breast-feeding rates. For instance, in 1997, 62.4% of USA mothers began breast feeding their infants in the hospitals and 41.7% of these women were still breast-feeding at six (6) months (USA Mothers' Survey, 1998).

All (34%) of respondents who practiced got the information about exclusive breast-feeding from the health centre and majority (50%) of those who did not practice also got the information from the health centre (Table 31, p51). This implied that IEC should be intensified more in the health centres because a larger number got information from them though they did not practice.

The study findings revealed that culture still plays a role on infant feeding. Majority (56%) of respondents believed that a mother should stop breast-feeding if she conceived while 44% did not (Table 43 – p57 and 44 – p57). Various reasons were given. Those who said a mother should stop, majority (52%) gave the reason that tradition says that the baby would develop diarrhoea, swell up, become malnourished and eventually die (Icibele) and of these mother, majority (32%) did not practice (Table 36, p54). This means that there was need to intensify IEC about the benefits of exclusive breast-feeding in order to correct myths and beliefs about it so that more mothers can practice exclusive breast-feeding.

Majority (62%) who did not practice exclusive breast-feeding experienced no problem in initiating breast feeding. Only 10% of respondents experienced problems and of these, majority (6%) practiced exclusive breast-feeding (Table 37, p54). This implied that most mothers do not

exclusively breast feed because they had problems in initiating breast-feeding but it was just their negative attitude.

5.6 SUMMARY

Finally, the study findings revealed that the majority (94%) of the respondents were knowledgeable about the benefits of exclusive breast-feeding and that most (66%) of them did not practice it. The inhibiting factors to practicing exclusive breast-feeding could be summed up in the beliefs and myths that most of the respondents had. Therefore, the researcher suggests that more effort should be directed towards the promotion and support of exclusive breast-feeding through continued dissemination of IEC in order to change the negative attitude that the mothers had and help them practice exclusive breast-feeding.

5.7 IMPLICATIONS FOR THE HEALTH CARE SYSTEMS

The study findings revealed that majority (94%) of the respondents were knowledgeable about the benefits of exclusive breast-feeding and their main source of information was the health center. This is an indication that there is real teaching in our health institutions resulting in more clients being exposed to the information about the concept.

However, though majority of women had a positive attitude towards exclusive breast-feeding and were knowledgeable, the study findings revealed that only a few (34%) were practicing exclusive breast-feeding.

There is need, therefore, for health workers to change the approach of disseminating information, education and communication to the clients in order to promote the practice of exclusive breast-feeding.

The health educators concentrate on talking only about the benefits of exclusive breast-feeding, for example, it helps families with child spacing, save resources, reduces health care spending to mention but a few instead of incorporating it with its management. The reason why most mothers who were knowledgeable about exclusive breast-feeding couldn't practice was that they didn't know how to go about it. Clients should be told on how to maintain exclusive breast-feeding. Working mothers, for instance, should be told how to maintain lactation, even when they are separated from their infants. Expressing breast milk and forming breast feeding mother support groups at places of work could help. Another way exclusive breast-feeding could be maintained by a working mother is by extending the maternity leave.

Most mothers don't practice exclusive breast-feeding because of the traditional beliefs and myths that they harbour about child feeding. Information, education and communication, therefore, should include the

truth certain beliefs so that clients can be corrected and begin to practice exclusive breast-feeding. For example most mothers said that a baby developed diarrhoea if breast fed in public (Kunyonshela). This belief makes mothers give their babies breast milk substitutes when they are in public places like the market instead of breast feeding. Mothers therefore may be educated on carrying expressed breast milk when going to public places if they strongly harbour this belief.

Among those who heard about exclusive breast-feeding from other sources, no one practiced it. Therefore, maintenance of exclusive breast-feeding should also be extended to all points of contact with women rather than limiting it to the antenatal clinic only. This could be achieved by disseminating the information about maintenance of lactation on radio and TV and even incorporating this as a topic in the curriculum in secondary schools and colleges.

There was lack of lactation counselling done at the health center. Nurses being the majority of health workers involved in the promotion of exclusive breast-feeding should be oriented to the concepts of individualized counselling. This would help foster exclusive breast-feeding practice to a desirable level. Counselling is paramount in today's health services especially in child health survival programmes.

The outcome of all the interventions would help reduce the high infant mortality and morbidity rates which are caused by diarrhoeal diseases, anaemia and acute respiratory tract infections which could be prevented by breast-feeding the infants exclusively.

CHAPTER SIX

0 CONCLUSION, RECOMMENDATIONS AND LIMITATION

6.1 CONCLUSION

The study sought to determine the knowledge, attitude and practice of antenatal mother towards exclusive breast-feeding in M'tendere-Lusaka. This was done in the light of exploring factors inhibiting mothers from practicing exclusive breast-feeding.

The study has revealed that the majority of mothers are knowledgeable about the benefits of exclusive breast-feeding and most of them had a positive attitude towards it. However, their knowledge has not been put into effect as only a few of the respondents practiced exclusive breast-feeding. Majority of those who did not practice exclusive breast-feeding gave a reason that a child couldn't live on breast milk alone. The cultural and traditional beliefs about pregnancy and breast-feeding also inhibited mothers from practicing exclusive breast-feeding.

It was also revealed that educational level did not influence the practice of exclusive breast-feeding though it enhanced the understanding of the concept. Majority of mothers who attained secondary level of education

and all those that had college/university education did not practice exclusive breast-feeding.

There is, therefore, need for health care providers to take an initiative in the dissemination of information, education and communication about the benefits of exclusive breast-feeding in order to promote its practice.

6.2 RECOMMENDATIONS

In view of the findings of the study, the following recommendations were made to:-

6.2.1 THE HEALTH CENTRE

1. There is need for the health center management to establish lactation centering at the health center and also train nurses in individual centering as they are the majority of health workers involved in exclusive breast-feeding promotion.
2. The health center should become 'baby friendly' by implementing baby friendly hospital initiative (BFH) activities. This will make the people want its support and practice exclusive breast-feeding.

3. The breast-feeding mother support groups should be established in the community and the one existing at the health center should be made community based and intensified.
4. Educational materials on exclusive breast-feeding such as pamphlets should be distributed to mothers by the health center staff and these materials should be translated into local languages for those who can't read English.
5. The health center staff should involve influential family members such as husbands to render support to exclusive breast-feeding mothers.

6.2.2 MINISTRY OF HEALTH AND CENTRAL BOARD OF HEALTH

1. There is need to train and orient more health care providers on the management of lactation or exclusive breast-feeding with emphasis on the ten (10) steps to successful breast-feeding by Ministry of Health. Regular workshops/seminars on management of exclusive breast-feeding would keep health workers abreast about new ideas on exclusive breast-feeding in the country.
2. There is need to intensify the monitoring of the international code of marketing of breast milk substitutes by the Ministry

of Health (MOH) and the National Food and Nutrition Commission (NFNC) to ensure that breast-feeding is protected.

3. The Ministry of Health should work in collaboration with Ministry of Education so that the curriculae in schools and colleges can be reviewed to integrate exclusive breast-feeding concepts in order to expose the youth both girls and boys.
4. All the hospitals in the country should be accorded the status of "baby friendly" by implementing the baby friendly hospital initiative.
5. The Ministry of Health should undertake or sponsor large studies on exclusive breast-feeding so that new ideas can be found and gaps filled. Findings from smaller studies cannot be generalized since the sample sizes are usually small.
6. The Ministry of Health should create radio, television and internet teaching programmes on parenting, breast-feeding and infant nutrition.

6.3 LIMITATIONS OF THE STUDY

1. The funding for the study was inadequate and therefore influenced the sample size.
2. There was limited literature available on studies done in Zambia on exclusive breast-feeding. Not much has been documented yet.
3. The sample size of the study was limited and findings could not be generalized to other health centers in the country.
4. Time was limited as the study was being conducted along side other courses.

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APPENDIX I

THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE

DEPARTMENT OF POST BASIC NURSING

**INTERVIEW SCHEDULE FOR KNOWLEDGE, ATTITUDE AND PRACTICE OF
ANTENATAL WOMEN TOWARDS EXCLUSIVE BREAST-FEEDING**

QUESTIONNAIRE NO.:

DATE OF INTERVIEW:

NAME OF HEALTH CENTRE:

INSTRUCTIONS:

1. Introduce yourself to client
2. Explain the purpose of the study
3. Please assure client that information to be given is strictly confidential
4. Tick (☒) appropriate response and write answers in the space provided
5. Remember to thank client after the interview.

DEMOGRAPHIC DATA

FOR OFFICIAL USE

1. What is your age?
2. What is your marital status?
 - (a) Single ☐
 - (b) Married ☐
 - (c) Divorced ☐
 - (d) Widowed ☐
3. What is your educational level?
 - (a) Primary ☐
 - (b) Secondary ☐
 - (c) College/university ☐
 - (d) None ☐
4. What is your religion?
 - (a) Christian ☐
 - (b) Moslem ☐
 - (c) Hindu ☐
 - (d) Others (specify)
5. What is your occupation?.....
6. What is your husband's occupation?
 - (a) Unemployed ☐
 - (b) Informally employed ☐
 - (c) Formally employed ☐
7. How many children do you have?
8. What age is your youngest child?
9. Where do you live?

KNOWLEDGE

10. Have you ever heard of exclusive breast-feeding?
 - (a) Yes ☐
 - (b) No ☐

11. If YES to question 10, where did you hear about exclusive breast-feeding?

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12. When did you hear about exclusive breast-feeding?

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13. What do you understand by exclusive breast-feeding?

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14. Have you ever received instructions about exclusive breast-feeding?

- (a) Yes
(b) No

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15. If yes to question 14, who gave you the instructions?

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16. Do you think exclusive breast-feeding is good for a baby?

- (a) Yes
(b) No

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17. If yes to question 16, what are the benefits of exclusive breast-feeding?

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ATTITUDE

18. Do you think a baby must only be given breast milk as food from birth to six months?

(a) Yes ☐
(b) No ☐

☐

19. If no give reasons.

.....
.....
.....

20. Have you ever practised exclusive breast-feeding

(a) Yes ☐
(b) No ☐

☐

21. If NO to question 20, give reasons.

.....
.....
.....

PRACTICE

22. Do you exclusive breast-feed your children?

(a) Yes ☐
(b) No ☐

☐

23. If yes to question 22, how long do you breast-feed your children on breast milk alone?

.....
.....
.....

24. If NO to question 22, why don't you exclusive breast-feed your children?

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25. Do you intend to introduce breast milk substitutes to your child?

- (a) Yes
(b) No

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26. Give reasons for your response to question 25.

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27. If YES to question 25, at what age do you intend to introduce breast milk substitutes to your child?

- (a) 0 – 1 month
(b) 1 – 3 months
(c) 4 – 6 months
(d) 7 – 9 months

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28. Do you give fluids to a breast-feeding baby?

- (a) Yes
(b) No

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29. If yes to question 28, what type of fluids?

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FOR OFFICIAL
USE

30. Do you give water or drink to a child?

(a) Yes ☐
(b) No ☐

☐

31. If yes to question 30, why do you give water to a child?

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.....
.....

32. If NO to question 30, please explain.

.....
.....
.....

33. Do you ever give solids to a breast-feeding child?

(a) Yes ☐
(b) No ☐

☐

34. If YES to question 33, what type of solids do you give?

.....
.....
.....

35. How soon will your child be put to the breast after you deliver?

| | |
|--------------------------|--------------------------|
| (a) Less than 30 minutes | <input type="checkbox"/> |
| (b) 30-60 minutes | <input type="checkbox"/> |
| (c) 1-2 hours | <input type="checkbox"/> |
| (d) 2-3 hours | <input type="checkbox"/> |
| (e) More than 3 hours | <input type="checkbox"/> |

☐

FOR OFFICIAL

36. Do you experience any problems in initiating breast-feeding?

- (a) Yes
(b) No

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USE

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37. If YES to question 36, what type of problems?

- (a) Sore nipples
(b) Insufficient milk
(c) Infant not sucking
(d) Breast engorgement
(e) Others (specify)

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38. Should a mother discontinue exclusive breast-feeding when she becomes pregnant?

- (a) Yes
(b) No

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39. Give reasons for your answer in question 38.

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40. Please give suggestions on how more mothers can be encouraged to exclusively breast-feed their infants.

.....

.....

.....

THANK YOU FOR TAKING TIME TO COMPLETE THIS QUESTIONNAIRE

APPENDIX II

UNIVERSITY OF ZAMBIA.
SCHOOL OF MEDICINE
P.B.N DEPARTMENT
P.O BOX 50110
LUSAKA.
19TH JULY 2001.

THE DISTRICT DIRECTOR OF HEALTH.
LUSAKA URBAN DISTRICT HEALTH
MANAGEMENT TEAM,
P.O BOX 50827,
LUSAKA.

U.F.S THE HEAD.
SCHOOL OF MEDICINE,
P.B.N DEPARTMENT.

Dear Sir / Madam,

REF: STUDY PROJECT.

I am a final (4th) year student at the University of Zambia, School of Medicine in the Department of Post Basic Nursing. I am pursuing the Bachelor of Science degree in Nursing and in partial fulfilment of this course, I am required to conduct a research study.

I am particularly interested in determining the knowledge, attitude and practice of antenatal mothers towards Exclusive Breastfeeding at M'tendere Health Centre. I hope that the findings of the study will help to disseminate proper and adequate information, education and communication on Exclusive Breastfeeding to antenatal mothers and also to solve the high infant morbidity and mortality.

The purpose of this letter is to kindly request for your permission to allow me collect data from M'tendere Health Centre in August for a period of two (2) weeks.

I would be very grateful if my request is considered with favour and your earliest response to this letter will be highly appreciated.

Yours Faithfully,

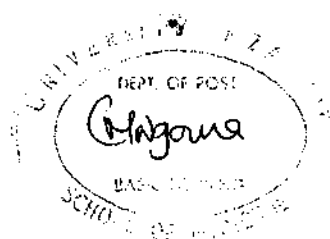

KINGSLEY CHISENGA.

APPENDIX III

University of Zambia
School of Medicine
P.O. Box 50110
LUSAKA

The In-charge
Chilenje Health Centre
P.O. Box
LUSAKA

U.F.S.: The Head
Department of Post Basic Nursing
LUSAKA



Dear Sir/Madam,

RE: PERMISSION TO UNDERTAKE A PILOT STUDY

I am a 4th year student pursuing a degree in Nursing at the University of Zambia, School of Medicine. In partial fulfilment of my studies, I am required to undertake a research study. I am therefore asking for permission to carry out a pilot study at Chilenje health centre. My study topic is:- **Study to Determine Knowledge, Attitude and Practice of Antenatal Mothers Towards Exclusive Breast-Feeding.** My target population will be antenatal mothers at the antenatal clinic.

Thanking you in anticipation.

Yours faithfully,

A handwritten signature in dark ink, appearing to read 'Kingsley Chisenga'.

Kingsley Chisenga

APPENDIX IV

26th July, 2001

University of Zambia
School of Medicine
Dept of Post Basic Nursing
P.O. Box 50110
Lusaka

Dear Madam/Sir

RE: PILOT STUDY AT CHILENJE HEALTH CENTRE

Reference is made to the above subject matter.

I wish to inform you that management has no objection to your undertaking a study at Chilenje Health Centre.

Kindly submit a summary proposal of the study and ensure that you do not hinge on the smooth running of activities in the MCH department.

By copy of this letter, management at the Health Centre is herewith informed

Yours faithfully,

M. Makasa-Chikoya
Dr. M. Makasa-Chikoya
Manager Planning and Development
For DISTRICT DIRECTOR OF HEALTH



*MCH
no objection
as Chilenje MCH
let him administer the
questionnaire himself
Thank you
Love*

APPENDIX V

P. O. Box 50827
Lusaka
Tel: 235554
Fax: 236429



In reply please quote
No.

MINISTRY OF HEALTH

LUSAKA DISTRICT HEALTH MANAGEMENT BOARD

Tuesday, August 14, 2001.

The Head of department
School of Medicine
Post Basic Nursing
Box 50110
LUSAKA.

ATTENTION: Mr. Kingsley Chisenga.

Dear Sir,

RE: KAP STUDY OF ANTENATAL MOTHERS TOWARDS EXCLUSIVE BREAST FEEDING AT MTENDERE HEALTH CENTRE.

Be informed that Lusaka DHMT has no objection to your undertaking the above mentioned study.

However, this is subject to the student paying a research fee of US\$ 20 or its Kwacha equivalent and availing this office a copy of the findings for our future reference.

By copy of this letter the In-charge of Mtendere Health Centre is informed forthwith.

Your faithfully,

DR. M. KABASO
AG. MANAGER PLANNING

For District Director of Health - Lusaka.

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