ATTITUDES, KNOWLEDGE AND BEHAVIOUROF HIV POSITIVE PREGNANT WOMEN ATTENDING ANTENATAL CARE IN BUFFALO CITY METROPOLITAN DISTRICT EAST LONDON TOWARDS PREVENTION OF MOTHER TO CHILD TRANSMISSION (PMTCT)

BY

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MINI DISSERTATION SUBMITTEDIN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE DEGREE OF MASTERS IN NURSING SCIENCE (MAGISTER CURATIONIS) (COMMUNITY HEALTH NURSING)

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DECLARATION

I, Florence Nozakhe Skoti Matroshe, declare that this mini-dissertation is my own work. It is submitted for the Masters Degree in Nursing at the University of Fort Hare, South Africa. It has not been submitted before for any degree or examination in any other university.

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Candidate: F.N Skoti Matroshe Date:

The work presented in this mini-dissertation was undertaken in the School of Health Sciences, Department of Nursing Sciences, and University of Fort Hare, South Africa.

DEDICATION

I dedicate this study with love to:

My dear husband, Jongikhaya and my children, Yolokazi, Kamvelihle and Sinelizwi.

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ABSTRACT

Background: The National HIV and AIDS and STI strategic plan for South Africa, 2007-2011 aims to reduce the rate of mother to child transmission to less than 5% by 2011. On the World Aids day in 2009, the Honorable President Jacob Zuma announced the intervention to improve antiretroviral therapy (ARV), access to priority group's in order to decrease the disease burden, to address maternal and child mortality, and to improve life expectancy (PMTCT Guidelines: 2010).

According to the literature reviewed, accepting attitudes may indicate better knowledge and understanding of HIV and AIDS. Marking a change in South Africa's history of HIV the South African Government launched a major HIV Counseling and Testing program campaign (HCT) in 2010. For the PMTCT program to work and be acceptable, it needs to be known by its clients. It helps the individual to know about their status so that they make important choices for self and others. Amongst the important choices, medications for opportunistic medications, ARV'S, behavior change, etc, are included (Project Literacy 2006:40).

Aim and Objectives: The study assessed the knowledge that the pregnant women have towards the prevention of mother to-child transmission which includes HIV testing, antiretroviral prophylaxis during pregnancy, labour, and post natal and feeding options.

Methods: A quantitative descriptive method was used for this study. The questionnaires developed by the researcher were used for data collection. The items on the questionnaire were divided into four (4) subsections. The questionnaire was administered to all positive pregnant women coming for follow up visit and those available at the time of data collection.

Conclusion: In this study evaluation of the level of knowledge and attitude of positive pregnant women with regard to PMTCT in 5 Buffalo City Municipality clinics was conducted. It was found that some of positive pregnant women have better knowledge about PMTC though there were still those that need further education.

Recommendations: The service providers, who are the professional nurses, should be provided with proper training on PMTCT program to improve their standard of service delivery and to capacitate them with knowledge and skills. Integration of HIV related health aspects during assessment and treatment of pregnant women should be strengthened, as the purpose of implementation of PMTCT was to reduce mortality rate by 50%, and also to reach the 4th Millennium Development Goal of reducing these deaths by two-thirds by 2015.

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CHAPTER ONE

1.1. INTRODUCTION

BACKGROUND OF THE STUDY

South Africa continues to have high rate of Mother to Child Transmission of HIV. Almost 28% of pregnant women and 30% of mothers are HIV positive and an estimated 300 000 mothers need treatment each year (Statistics South Africa 2009). In 2010, around 390,000 children aged less than 15 years became infected with HIV. Almost all of these infections occur in low and middle income countries, and more than 90% are as a result of mother-to-child transmission during pregnancy, labour, delivery and breastfeeding. Without interventions, there is 20-45% chance that a baby born to an HIV-infected mother will be infected. (SANAC 2009:)

The National HIV and AIDS and STI Strategic Plan for South Africa, 2007-2011, aims at reducing the rate of mother to child transmission by less than 5% by 2011." On the World Aids day 2009 the Honourable President Jacob Zuma announced the intervention to improve Antiretroviral Therapy (ARV), access to priority groups in order to decrease the disease burden, to address maternal and child mortality, and to improve life expectancy (PMTCT Guidelines: 2010: 1)

1.2. Prevention of Mother-to-Child Transmission

Government has adopted a new outcomes based approach to accelerate attainment of the objectives outlined in the Medium Plan Strategic Framework 2009-2014. One of the objectives outlined in the framework is to improve the health profile of all South Africans. The 10 Point Plan of the health sector is aimed at creating a well functioning health system capable of producing improved health outcomes. Priority seven of the 10 point plan is to accelerate implementation of the HIV & AIDS plan and the reduction of mortality rate due to TB and associated diseases (Medium Plan Strategic Framework 2009-2014).

Emanating from the Presidential announcements of the new HIV and AIDS strategy in 2009, all HIV infected pregnant women with a CD4 count 350 are commencing lifelong ART earlier. Furthermore, prophylaxis ART treatment for pregnant women is started earlier, at 14 weeks for those who are not eligible for ART. For the first time, HIV-positive infected women can safely breastfeed their children provided the child is taking ARV's during breastfeeding period and the woman will be educated thorough on exclusive breastfeeding.

It is of paramount importance to note that prevention of mother-child-transmission of HIV has the potential to be the engine for strengthening the delivery of comprehensive, integrated health care. The guideline therefore, promotes the integration of PMTCT with maternal, newborn and child health, sexually transmitted diseases and tuberculosis services (WHO and UNICEF, 2003).

In line with the international standards for a comprehensive strategy, the PMTCT policy recognises that in order to prevent HIV among women and children, the following four elements of PMTCT are integral: primary prevention of HIV, especially among women of child bearing age, preventing unintended pregnancies among women living with HIV, preventing HIV transmission from a woman living with HIV to her infant and providing appropriate treatment, care and support to women living with HIV and their children and families (PMTCT Guidelines 2010: 1).

1.3. The National PMTC programme aims to ensure:

- Primary prevention of HIV especially among child bearing age.
- Integration of PMTCT interventions with basic antenatal care, sexual and reproductive health, child and adolescent health, comprehensive care, management and treatment for HIV and TB services.
- Strengthen postnatal care for the mother-baby pair.
- Provision of an expanded package of PMTCT services.
  (PMTCT Guidelines 2010: 1).

1.3. Problem Statement

Pregnant women who are diagnosed HIV positive are reluctant to enrol in PMTCT programme as a result they do not start the Ante Retro Viral treatment (ARV'S) or ARV prophylaxis at an early stage, thus exposing their babies unnecessarily to Human Immunodeficiency Virus (HIV). Maternal and child morbidity and mortality rates are inthe rise in South Africa and the HIV infections are known to be the major cause of such illnesses and deaths. However, there is a possibility that they do not have adequateknowledge and understanding about the risk of HIV transmission from mother to child or they have a negative attitude towards enrolling in the PMTCT programme. The pregnantwomen are also engaging in unprotected sex exposing the unborn child to HIV infection(SANAC 2009: 27). There is no known study by the researcher that has been conducted in the Eastern Cape on the assessment of attitudes, knowledge and practices by pregnant women regarding PMTCT.

1.5. Purpose of the Study

The purpose of the study was to:

Determine and describe the attitudes, knowledge and practices of HIV positive pregnant women towards prevention of mother to child transmission of HIV in Buffalo City Metropolitan Clinics, East London.

1.6. Objectives of the Study

The objectives of the study were to:

Describe the knowledge that the pregnant women have towards the prevention of mother to-child transmission which includes HIV testing, antiretroviral prophylaxis during pregnancy, labour, and postnatal and feeding options.

- Describe the knowledge, attitudes and behaviour of pregnant women about safe sex practices during pregnancy and postnatal.

1.7. Study Questions

- Do HIV positive pregnant women have knowledge of PMTCT which includes HIV testing, antiretroviral prophylaxis during pregnancy, labour, and postnatal and feeding options?
- What knowledge do they have regarding safe sex practices during pregnancy and post natal.

1.8.Significance of the Study

The results and recommendations from this study will contribute towards the strengthening of the PMTCT guidelines by policy makers. The recommendations will also contribute towards the provision of knowledge about PMTCT issues to HIV-positive pregnant women. This study will assist in closing the gaps in aspects of research regarding PMTCT.

1.9.Definition of Concept

Attitudes- Is a manner disposition, feeling, position, etc, with regard to a person or thing. (As defined by Oxford dictionary) In this study it refers to the feelings of the HIV positive women towards the PMTCT programme.

Knowledge- Facts, information, and skills acquired through experience or education; the theoretical or practical understanding of a subject**.** Inthis study knowledge refers to the understanding of the positive pregnant women about the PMTCT programme.

Behaviour- An individual's observable response in a given situation with respect to a given target.In this study behaviour refers to the response of HIV positive pregnant women towards assessment on PMTCT programme.

PMTCT – Prevention of mother to child transmission of HIV. It is the transmission of HIV from HIV-positive mother to a child during pregnancy, delivery and breastfeeding (PMTCT Guidelines 2010:5). Inthis study PMTCT refers to prevention of mother to child infection amongst pregnant mothers attending antenatal care at Buffalo City Metropolitan Municipality clinics.

HIV- refers to Human immune deficiency virus. HIV is the virus that causes immune deficiency disease and AIDS worldwide (Abdool and Abdool 2008:266). In this study HIV refers to the virus that affects the pregnant women attending antenatal care in the Buffalo City Metropolitan Municipality clinics.

HIV positive- Refers to people who have taken an HIV test with a positive result and know their result. In this study HIV positive refers to the pregnant women attending antenatal care in Buffalo City Metropolitan clinics that are tested with positive results.

Antenatal Care – Services offered at the clinic to pregnant women from the date of conception until delivery (PMTCT Guidelines 2010: 24). In this study antenatal care refers to the care that is offered to the pregnant women attending the clinics in Buffalo City Metropolitan District.

1.10.The theoretical framework

The theoretical framework is defined as the abstract, logical structure of meaning that guides development of the study and enables the researcher to link the findings to the body of knowledge for nursing (Burns & Grove, 2009:126). The Health Belief Model has been chosen for this study. Justification for this decision is the dearth of literature available regarding the behavioural underpinning of pregnant women. HBM is a

conceptual framework used to understand health behaviour and possible reasons for non compliance with recommended health action. It can provide guidelines for program development allowing planners to understand and address reasons for non compliance.

The HBM addresses four major components for compliance with recommended health action: perceived barriers of recommended health action (women presenting late for ANC) perceived benefits of recommended health action (early ANC booking) perceived susceptibility of the disease and perceived severity of the disease (occurrence of complications). In addition there are modifying factors that can affect behaviour compliance; these would include media, health professionals, personal relationships, incentives and self efficacy of recommended health actions (McKenzie, Neiger and Thackeray, 2009:172). Details of the theoretical framework will be discussed in chapter three.

1.11. Methodology of the study

The research methodology outlines a logical process of the research and what processes and procedures are followed to answer the research question and achieve the research objectives (Mouton 2001:56). This chapter describes the steps taken to achieve the study objectives. These steps include the types of study design chosen, study setting, study population, study sample, sampling procedure, research instrument, validity and reliability, data collection method and data analysis and lastly the ethical considerations.

1.11.1. Study design

Burns and Grove (2009:40) define a research design as a blue print for the conduct of a study that maximizes control over factors that could interfere with the study's desired outcome or findings. Polit and Beck (2008:66) define research design as the overall plan for obtaining answers to the research question being studied including

specifications for enhancing the study's scientific integrity. Burns and Grove (2009:42) define it as a logical framework that guides the researcher in the process of collecting, analyzing, and interpreting the data**.** It is essentially the architectural backbone of the study. The researcher used a descriptive, non-experimental design and quantitative research approach in this study.

1.11.2. Descriptive design

Descriptive design is described by Burns and Grove (2009:239) as a research design that provides an accurate portrayal or account of characteristics of a particular individual, situation, or group. It is a way of describing what exists, discovering new meaning, determining the frequency with which something occurs and categorizing information. These studies are usually conducted when little is known about a phenomenon. The purpose of descriptive studies is to observe, describe, and document aspects of a situation as it naturally occurs and sometimes to serve as a starting point for hypothesis generation or theory development (Burns & Grove 2009:26; Polit & Beck 2008:274). In this study descriptive design was used to assess the knowledge, attitude and behaviour of pregnant women towards prevention of mother to child transmission.

1.11.3. Study setting

The study was carried out at Buffalo City Metropolitan District Municipality. The five clinics are situated in East London. East London is a town found in Buffalo City Metropolitan District that forms part of the Amathole District Municipality. Buffalo City Metropolitan District is dominated by Xhosa and English speaking people. The municipality has three referringhospitals and three health centres, many industries, tertiary institutions and senior secondary schools. There is a high rate of pregnancy especially of women at the age of 16 years to 35 years. Buffalo City Metropolitan sub-

District has 118clinics rendering primary health services to all age groups including pregnant women.

1.11.4. Study population

The population is all the elements (individuals, objects, or substances) that met certain criteria for inclusion in a given universe (Burns and Groove 2009: 40). Babbie and Mouton (2001:174) define a population as an aggregation of elements from which the sample is actually selected. Supported by Polit and Beck (2008:337), the study population is defined as the entire aggregation of cases in which the researcher is interested. In this study the target population were pregnant women that were attending antenatal clinic at five Buffalo City Metropolitan clinics in East London. .

1.11.5. Sampling procedure

The study used a convenience purposive sampling where HIV positive pregnant women visiting the clinic for the second time and who were available during the data collection period were selected for this study. In each clinic there were approximately eighteen HIV positive pregnant women recruited for the study once a week resulting in a total of 82 respondents to be utilized

1.11.6. Pilot study

Pilot study which is sometimes referred to as a preliminary study, that was a small scale study conducted prior to the main study on a limited number of subjects from the population at hand. Its purpose was to investigate the feasibility of the proposed study and to detect possible flaws in data collection instruments such as ambiguous instructions or wording (Brink 2007, 166). The questionnaires were pre tested with a small sample of three respondents before use for reliability and validity

1.11.7. Data collection method

The researcher targeted all the HIV positive pregnant women that are coming for antenatal care at the clinic for follow up visits during the period of data collection. A private room was provided for them, and they were invited to participate after the study and its purpose had been explained to them and they had been given time to ask questions. This study used questionnaires as a tool of collecting the data. The respondents were given consent forms and after the consent forms have been signed they were given questionnaires to answer. Details on the data collection instrument are discussed in chapter three.

1.11.8. Ethical consideration

Before the study commenced, a clearance certificate to conduct the study was obtained from the University of Fort Hare Research Ethics Committee. Permission to conduct the study was obtained from Eastern Cape Department of Health Research Ethics Committee, from the manager of Buffalo city sub-district office and from operational managers from Buffalo City Metropolitan clinics. The purpose of the study was explained to the participants in a simple language. Those willing to participate in the study signed a written consent form. There were no risks anticipated in this study. The researcher informed the participants fully about the proposed study and allowed them to voluntarily choose to participate in the study. The right to self -determination which was based on the ethical principle of respect for persons were upheld. Participants were informed that they have a right to participate or withdraw from the study at any point and that their choices would not affect their employment, their care and that of their families. Confidentiality ensured the researcher's management of private information shared by a participant that should not be shared with others without the authorization of the participant (Burns and Grove 2009:196). Anonymity ensured that no names appeared on the questionnaires. The information provided by participants was available to the

researcher and the supervisor only. Details on the ethical consideration were discussed in chapter three.

1.11.9. Data analysis

Data were analysed using the Statistical Package of Social Sciences (SPSS) software, version 17.0. The significant level was set at 0.05. Descriptive statistics was used to describe and summarise data with the assistance of a statistician. Data was converted and condensed in an organised, visual presentation or picture in the form of table and graphs, so that the data have some meaning for the readers of the research report (Pallant, 2010: 56). A descriptive approach employs measures such as frequency distributions, measures of the central tendency and dispersion or variability, and measures of relationships (Brink, 2006:17). Demographic data and responses from the questionnaire were analysed through frequency counts. The results of this study are presented in percentages, tables and histograms (Brink, 2006: 172).

1.12. Delineation of Chapters

Chapter one	Introduction
Chapter two	Literature review
Chapter three	Methodology
Chapter four	Results
Chapter five	Discussion, Limitations, Conclusion and Recommendations.

1.13. SUMMARY

This chapter attempted to assess the knowledge, attitudes and behaviour of positive pregnant women towards the prevention of Mother-to-Child transmission of HIV and AIDS, which include HIV testing, antiretroviral prophylaxis treatment during pregnancy, labour and postnatal, feeding options and safe sex practices during pregnancy and postnatal.

CHAPTER TWO - LITERATURE REVIEW

2.1. INTRODUCTION

A literature review is an organized written presentation of what has been published on a topic of study by scholars. It is conducted to generate a picture of what is known about a particular situation and the knowledge gaps that exist in it (Burns & Grove 2009:37, 93-95). Through literature review, the researcher is able to clarify which problems have been investigated, require further investigation or replication or have not been investigated at all. Its purpose in a quantitative research is to direct the development and implementation of the study by aiding the researcher in designing the study and interpreting the outcomes in comparison to prior research (Burns & Grove 2009:37, 93-95). The primary rationale for reviewing literature relevant to this study was to gain an understanding of the information available on the following questions:

- Do HIV positive pregnant women have knowledge of PMTCT which includes HIV testing, antiretroviral prophylaxis during pregnancy, labour, and postnatal and feeding options?
- What knowledge do they have regarding safe sex practices during pregnancy and post natal.

The outline of the sub topics had been arranged in the following manner:

- Demographics of HIV and AIDS in South Africa
- Accepting attitudes towards those living with HIV and AIDS
- Prevention of Mother To Child Transmission of HIV
- Understanding and knowledge of PMTCT programme
- Health Belief Model
- Millennium Development Goals
  -Epidemiology: Mortality and Morbidity of children under five years
  -HIV and AIDS in relation to childhood illnesses
- Factors that Prevent Pregnant Women from Participating in the PMTCT Programme:

- Stigma, discrimination and denial
- Discomfort and Lack of Privacy
- Availability of Antiretroviral drugs (ART)
- Personal susceptibility to risk
- Psychological factors
- Social approval

2.2. Demographics of HIV and AIDS in South Africa

According to Aids statistics 2009, an estimated 5.6 million people were living with HIV and AIDS in South Africa in 2009, the highest number of people in any country in the same year, it is estimated that 310,000 South Africans died of AIDS-related causes, reflecting the huge number of lives that the country has lost to AIDS over the last three decade (Statistics South Africa. 2009).

Aids prevalence rate was 17.8 percent among those aged 15-49, with younger adults being particularly affected. HIV prevalence among those aged two and older also varied by province with the Western Cape 3.8 percent and Northern Cape 5.9 percent being least affected, and Mpumalanga 15.4 percent and Kwazulu-Natal 15.8 percent at the upper of the scale (Statistics South Africa.2009) In a study, published in the August 2009 issue of Obstetrics and Gynecology, found that the maternal mortality ratio was more than six times higher in HIV-positive women (776 deaths per 100,000 births) than in HIV-negative women (124 per 100,000). Nearly half of the 108 women who passed away between 2003 and 2007 died from HIV-related causes, most commonly tuberculosis and pneumonia(Published report Obstetrics and Gynecology (2009:11). According to findings from this study, the roll-out of treatment did not reduce maternal deaths among the HIV-infected women because only two pregnant women had started taking the medication (Published report Obstetric and Gynaecology 2009 :11). Most of those who died had a CD4 count below 200.

Black, Hoffman, and Sugar, (2008:276-281) who are the authors of the study from Reproductive Health and HIV Research Unit (RHRU) at the University of Witwatersrand stated that, the problem is not that ARVs do not reduce mortality, but the lack of postnatal services for HIV positive women especially those who are not eligible for ARVS are the result of high mortality rate. The RHRU study also highlighted gaps in the country's prevention of mother-to-child HIV transmission (PMTCT) programme that are causing HIV-positive women to miss out on testing and treatment. HIV testing rates increased more than threefold during the study period, yet the authors still identified insufficient HIV testing as "the most important program weakness" amongst 28 percent and 33 percent of women attending antenatal clinics in South Africa are HIV positive, but many remain unaware of their status and never access the necessary care to prevent transmission to their infants or protect their own health. The study identified a link between low prenatal clinic attendance and high mortality rates among HIV-positive women, but Black in 2008: 336 also pointed to the lack of postnatal services for HIV-positive mothers, especially those who are not eligible for ARV's (Black 2008: 336). . HIV-positive pregnant women are between 1.5 percent and five times more at risk of maternal death than HIV-negative women, according to a number of studies cited in the RHRU study, so therefore giving mothers ARV treatment earlier is particularly important (Black et.al 2008: 256)

Black et,al. (2008: 336) stated that the PMTCT programmes extended to include a greater focus on long-term maternal health. "If you look after the health of the woman she's less likely to transmit the virus, but securing mum's health is important because of broader issue"(Black 2008 :340). The findings from this study contribute to the heated debate in South Africa's HIV/AIDS sector about the need to raise the threshold for starting treatment from a CD4 count of 200 to 350. The authors concluded that the deaths of most of the HIV-positive women in the study could have been avoided if they had begun ARV treatment, and been given cotrimoxazole prophylaxis.

The South African National AIDS Council (SANAC 2009: 26) recommended the change after findings from a number of recent studies showed that patients who started treatment earlier developed fewer AIDS-related illnesses and had lower mortality rates,

but the National Health Council, an advisory body to the Health Ministry, approved to start the ARV treatment from a CD4 count of 350.The above recommendations led to implementation of the new guidelines which advocate for the initiation of ARV treatment to pregnant women when the CD4 count is at 350.

Marking a change in South Africa's history of HIV, the South African Government launched a major HIV counselling and testing programme campaign (HCT) in 2010. Since its implementation, the HCT campaign has had a notable impact on the availability and uptake of HIV testing treatment. The impact of the AIDS epidemic is seen in the dramatic change in South Africa's general mortality rates. The overall annual number of deaths increased sharply between 1997, when 316,559 people died, and 2006 when 607,184 people died. This rise is not necessarily due solely to HIV and AIDS but those who are particularly shouldering the burden of the increasing mortality rate are young adults, the age group most affected by the epidemic, almost one in three women aged 25-29, and over a quarter of men aged 30-34 are living with HIV. The link suggests that AIDS is the principle factor in the overall rising number of deaths (HCT Guideline 2010: 2)

In South Africa antenatal care (ANC) has a tendency to start late, after 20weeks gestation. According to Department of health Guidelines (2007:19), ANC should start in the first trimester that is the first three months of pregnancy. To accommodate this goal, the ideal timing for ANC in South Africa would be at pregnancy confirmation (within first 12 weeks) and thereafter 20, 26, 32 and 38 week's gestation (BANC Guidelines 2005: 19). In 2005 the Department of Health came up with Basic Antenatal Care (BANC) guidelines with the aim for pregnant women to attend antenatal care five times starting before 20weeks gestation. During booking (first visit to antenatal care) full clinical examination is done, this includes head to toe examination of pregnant woman, routine blood taking i.e. all necessary bloods. All these give a clear indication of the state of health of a woman before pregnancy. Health counselling and testing of HIV is also done as part of routine procedures. Ultrasound scan is done to diagnose intrapartum abnormalities that are missed during palpation (BANC Guidelines 2005:5).

Solarin and Black (2012:124) identified health system operation as a barrier to early initiation of ANC. They argue that mother to child transmission of HIV and HIV related maternal and infant mortality and morbidity may be linked to timing of HIV interventions during pregnancy. The authors stated that optimal usage of first contact with health services is imperative if South Africa is to make progress towards Millennium Development Goals four and five. Solarin and Black (2012:146) also argue that health seeking behaviour may be another barrier to early booking. They highlighted that one of the frequently cited reasons for both late and prompts to earlier attendance was a lack of recognition of pregnancy.

Late recognition of pregnancy seems to be a strong predator of delayed ANC attendance. Gross, Alba, Glass, Schellenberg and Obrist (2011:53) in a study conducted in Tanzania say that more than a quarter of participating women said they waited for quickening before initiating ANC. This has also been reported in South Africa where women who have been on hormonal contraceptives have had problems regarding recognition of pregnancy. Studies done on timing of initiation of antenatal care from developing countries have managed to shed some light on the demographic factors. Late booking has been associated with young age, premarital status, unwanted pregnancies, high parity lack of formal education and low socio economic status.

Erci (2003:9) and Youssef, Moubarak, Gaffar and Atta (2002:14) reported that unwanted and unintended pregnancies were a barrier to prenatal care services. Most women booked later in their second and third trimester and explained this in terms of the pregnancy being unwanted (Abrahams and Jewkes, 1998: 48) and (Saliku, 2007:4). Magadi (2000:15) reported that the use of antenatal care is started later and is less frequent for unwanted and mistimed pregnancies.

2.3. Accepting Attitudes towards those living with HIV and AIDS

For the first time in a South African Department of Health Survey conducted in 2003 a question was asked in relation to the level of acceptance of people living with HIV and AIDS by the community and family members. As HIV prevalence has been increasing, the number of people living with HIV and AIDS has increased and so there was a need to understand how strong the stigma of the infection and disease is in the population. According to the SADOH Survey, 2003, accepting attitudes may indicate better knowledge and understanding of HIV and AIDS. The study further re stated that, accepting attitudes may also be as a result of more people being affected by family members disclosing their status or as a result of caring for those living with HIV and AIDS. In number of questions the following results were obtained: Around interaction with attitudes towards those infected with HIV, the majority of women 85 % reported that they would be willing to care for a family member with HIV or AIDS at home(UNAIDS.2008: 11)

In a study conducted at KwaZulu-Natal Province, the following differences were observed across selected characteristics of women willing to care for those living with HIV and AIDS. This province showed the lowest proportion of women 71 % reporting that they would care for family members; as the province with one of the highest rates of HIV infection, this was a cause for concern. Women with no education also reported a lower level of agreement to this response 79 %. In a question where women were asked if they would be prepared to buy fresh vegetables from a vendor they knew to be infected with HIV; almost three–quarters 73 % said yes. Significantly fewer women with no education 49 % compared to 83 percent of those with higher education were comfortable with buying fresh vegetables from an infected person. Non–urban women were also less likely to report preparedness to buy fresh vegetables from an HIV positive vendor. These women reported lower levels of agreement 62 % compared to urban women 78 %(UNAIDS.2008: 18-21)

Most women 82 % believe an HIV positive teacher should be able to continue teaching. Again this measure of acceptance is affected by education with increasing acceptance as women's education increase 61-89 %. The lowest level of accepting attitudes is in

the disclosure of the HIV status of a family member. However nearly two-thirds of women 60 % indicate that there would not necessarily want an HIV positive family member's HIV status to remain a secret. More educated women were more likely to have accepting attitudes of positive status, acceptance increases with education (UNAIDS.2008: 16)

There is also considerable variations across the provinces with only half (51 percent) of women in Kwazulu Natal accepting a family member's HIV positive status to be known compared to 79 percent in the Eastern Cape. Overall, more than one-third of women (38 percent) express acceptance of all four measures. Only 22 percent of women with no education compared to 51 percent of those with higher education express acceptance on all four measures (UNAIDS.2008: HIV/AIDS in Sub-Saharan Africa, *Report on Global Aids Epidemic, August 2008).*

2.4. Prevention mother to child transmission

Summary of PMTCT process

ANTENATAL CARE	LABOUR & DELIVERY	POSTNATAL CARE

Table 1.

The National PMTCT programme aims at ensuring:

Primary preventionof HIV, especially among women of child-bearing age, integration of PMTCT interventionswith basic antenatal care (BANC), sexual and reproductive health, (SRH), Child and Adolescent Health, Comprehensive Care, Management and Treatment for HIV (CCMT) and Tuberculosis (TB) services, strengthen postnatal carefor the mother-baby pair and provision of an expanded packageof PMTCT services. (PMTCT guidelines 2010: 1)

PMTCT programme:

The PMTCT programme emphasises routine offer of HIV counselling and testing for all pregnant women attending antenatal care, provision of provider-initiated counselling and testing services in the context of PMTCT. In facilities offering routine antenatal care, involvement of the partner and the family in order to ensure a comprehensive approach, provision of appropriate regimens to prevent mother-to-child transmission of HIV according to the risk profile based on the HIV test, CD4 cell count, and clinical staging, provision of other appropriate treatments, such as those for opportunistic infections (OI) is provided.

The PMTCT programme involves management and nutritional support, provision of psychosocial support to HIV-positive pregnant women, provision of quality, objective, and individualized counselling on safe infant feeding practices (as defined in this document) for HIV-positive women in health facilities offering routine ANC services, through trained lay counsellors and health care professionals is strengthened (PMTCT guidelines 2010: 1).

The aim of MTCT and PMTCT is to:

- Strengthen obstetric practices which reduce MTCT, provision of antiretroviral prophylaxis to infants, integrated follow-up of infants born to HIV-positive women through routine child health services and the Integrated Management of Childhood Illness (IMCI) strategy.
- Emphasizes infant HIV testing using HIV DNA-PCR at 6 weeks of age for all infants born to HIV-positive women (integrated with the expanded programme on immunization.)
- (EPI) 6-week visit) should be practised irrespective of feeding option.
- Community-based household and door-to-door activities should be strengthened to educate and enhance the utilization rates and effectiveness of health programs, provision of quality, objective, and individualized counselling on safe infant feeding practices (as defined in this document) (Gombe, Mabaera & Tshimanga, 2006: 4-10)

(a) Pregnancy: Antenatal Care

Goals of interventions:

Some of the goals of antenatal care interventions are to improve the quality of the mother's health and prevent mortality, identify women who are HIV-positive, ensure HIV-positive women enter the PMTCT programme, prevent mother-to-child transmission; and provide zidovudine (AZT) from 14 weeks of pregnancy or lifelong ART as soon as possible, depending on a mother's clinical indications.
In 2009, the Eastern Cape provincial HIV prevalence amongst 15 - 49 antenatal women was 28.1%. The overall HIV provincial prevalence in this province has increased from 27.6% in 2008 to 28.1% in 2009 (PMTCT Guidelines 2010: 2).

(**b**).**Labour and delivery**

Goals of interventions:

Identify HIV-positive women, provide adequate PMTCT coverage, provide continuity of care of prophylactic and treatment antiretroviral regimens, reduce maternal Nevirapine (NVP) resistance and initiate neonates born to HIV-positive mothers with antiretroviral prophylaxis immediately at birth.

(PMTCT Guidelines, 2010: 4).

(b) Postnatal care

Goals of interventions:

Infants who are breastfed and whose mothers are on lifelong ART**,** all women of unknown HIV status should be offered HIV testing and counselling before discharge, preferably prior to, or immediately after delivery to ensure that the baby gets antiretroviral prophylaxis if the test is HIV positive, all abandoned infants judged to be in

their first 72 hours of life should be given NVP as soon as possible and then daily for six weeks, or until PCR rapid testing of the mother or infant confirms the absence of HIV exposure, breastfed infants whose mothers are not on lifelong ART should continue NVP beyond six weeks of age until all cessation of breastfeeding (PMTCT Guidelines 2010: 5)

(c) Follow up care and support

Goals of interventions:

Provide follow-up post-partum care including a postnatal visit within three days, improve the quality of the mother's health and reduce mortality by including family planning counselling and cervical cancer screening where applicable, provide post-exposure prophylaxis for infants, reduce postnatal HIV transmission through breastfeeding, identify all HIV-exposed infants, reduce mortality in HIV-exposed infants; and identify all HIV-positive infants and start ART early (PMTCT Guidelines 2010: 5).

(d) Treatment

Specific Objectives for HIV treatment

To prioritize ARVs for; patients with CD4 counts < 350cells/mm3 or with severe HIV disease irrespective of CD4, patients co-infected with TB/HIV and pregnant women. To ensure access to ART within 2 weeks in pregnant women, those with low CD4 counts, very ill patients, and those with MDR-TB or extensively drug resistant TB (XDR-TB); to standardize first- and second-line therapy for children, adolescents, and adults in the public and private sector; to reduce the use of Stavudine; to expand the use of fixed-dose and co-packaged formulations; toenable nurses to initiate ARVs for treatment and prevention; and to enable PHC facilities to initiate, manage, monitor and refer patients.

2.5. Knowledge and Understanding of PMTCT programme

According to project literacy (2006:40), for the PMTCT programme to work and be acceptable, it needs to be known by the clients. PMTCT helps the individuals to know about their status so that they can make important choices for themselves and others. Amongst the important choices, medications for opportunistic infections, ARV'S, behaviour change, breast feeding options and other HIV related aspects were included.

The Constitutional Court of South Africa endorsed the decision that nevirapine is safe to be used by mother and the child at birth. Since the Constitutional Court Judgement, tens of thousands of mothers and children have been issued with the single dose of nevirapine regimen in South Africa .Nevirapine is a medication that helps to lower the risk of an HIV positive mother from infecting her unborn infant with the HIV infection (Project Literacy 2006: 80)

HIV negative pregnant women sometimes learn of their HIV status for the first time when they present themselves for the first time at the clinic. The PMTCT programme renders the opportunity for the HIV negative pregnant women to devise the realistic primary prevention strategies. The PMTCT programme helps HIV positive pregnant women to be able to prevent the transmission of the virus from them to their infants before, during and after delivery. They are also equipped with the information to treat opportunistic infections, nutritional practices, safe sex practices, follow the healthier life style and to prevent other strains of HIV that can be contracted through sexual intercourse (PAHO/WHO-UNICEF-CENSIDA 2006:3).

The trials of antiretroviral interventions using nevirapine included thousands of African mothers and infants. There was no significant toxicity or serious side effects in mothers or infants observed and reported. Such findings were confirmed by all the relevant scientific literature as well by the research done by South Africa's Medicines Control Board which officially found nevirapine to be safe and efficient (Van Niekerk 2003:764).

2.5.1. Breastfeeding Practices

Breastfeeding practices includes practices such as exclusive breastfeeding for six months, complementary feeds from six months and continued breastfeeding for 2 years and beyond; early initiation; skin to skin contact; rooming-in; formation of support groups; HIV positive mothers are encouraged to breastfeed if not meeting AFASS criteria, i.e. acceptable, feasible, affordable, sustainable and safe (Department of Health, 2007:12,14). The breast feeding practices including support from the family, knowledge and skills and cultural practices influence adherence of breast feeding, both positively or negative (Smith, Cooley, Labbok, Cupito and Nwokah 2012: 1186 and is supported by Phillips, 2011: 17-20

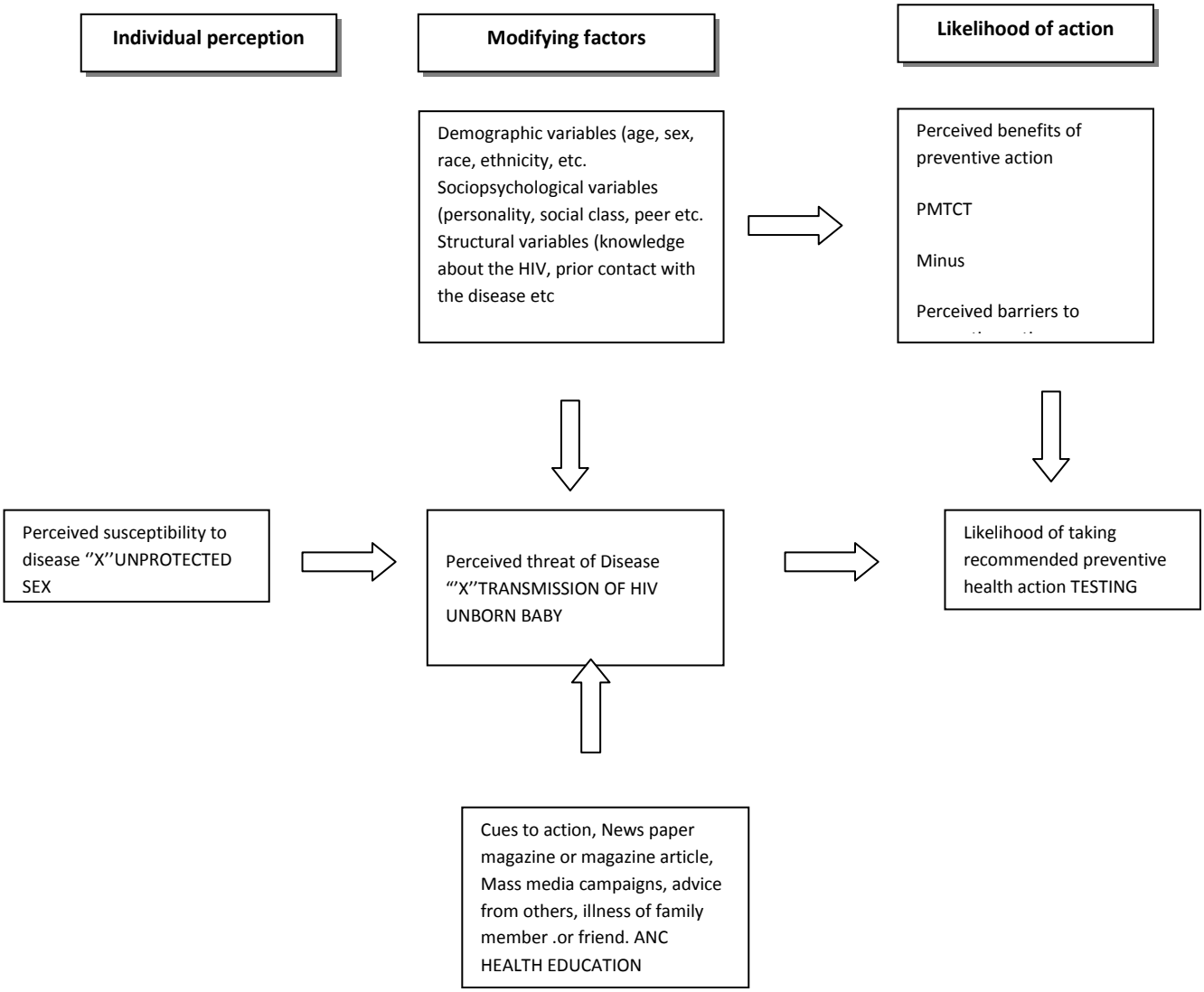
2.6. Theoretical Framework

A framework is the abstract, logical structure of meaning that guides the development of the study and enables the researcher to link the findings to nursing's body of knowledge (Burns & Groove 2009: 121).

A theoretical framework or model suggested as a basis for this study is the Health Belief Model (HBM). It is a social psychological model that attempts to explain and predict individual health behaviours. This is done by focusing on the attitudes and beliefs of individuals. The HBM model was first developed in the 1950s by Rosenstock in 1974, working in U.S. Public Health Services. The model was developed in response to the failure of free tuberculosis (TB) health screening programme.. The intention was to predict which individuals would or would not take specific actions to avoid illness (Rosenstock 1974: 247). This author assumed that to be in good health and to stay so is an objective common to all people. Since then, the HBM has been adapted to explore a variety of long- and short-term health behaviours including sexual risk behaviours and the transmission of HIV and AIDS. This model is relevant to the study as it deals with attitudes of the individuals. The model has been modified and extended to the people's

response to symptoms and to their behaviours in response to diagnosed illness, particularly adherence to specific medical regimens (Rosenstock 1974: 248).

Theoretical Framework of HBM:



The HBM postulates that people will take action to prevent, to screen for or to control illness if they regard themselves as susceptible to a condition (Glanz, Rimer & Lews 2002: 456). HBM also poses that people will take action to prevent or control ill-health condition; if they believe it would have potentially serious consequences, if they believe that a course of action available to them would be beneficial in reducing either their susceptibility to or the severity of the condition. HBM also observes that people will act if

they believe that the anticipated barriers to (or cost of) taking the action are overweighed by its benefits (Glanz et, al. 2002: 458).

The authors of HBM argue that in order for behaviour to succeed, people must feel threatened by their current behavioural patterns (perceived susceptibility and severity) and believe that change of a specific kind will result in a valued outcome in acceptable cost. They also must feel themselves competent (self efficacy) to overcome perceived barriers to taking actions. For example, if the perception of HIV/AIDS threat is high, and the perceived benefits outweigh perceived barriers, the HBM predicts that a cue to action could prompt an individual to adopt HIV/AIDS preventive behaviours (Glanz, et, al. 2002: 450).

In this study the concept of perceived susceptibility i.e. one's opinion of chances of getting a condition is when the pregnant women believe that their babies may have been exposed to HIV because they themselves are HIV positive. The concept of perceived severity one's opinion of how serious a condition and consequences are is when the pregnant women believe the consequences of having HIV and transmit it to the child without prevention or treatment is significant enough to try to avoid.

The concept of perceived benefits (one's belief in the efficacy of the advised action to reduce the seriousness of its impact) is when the pregnant women believe that the recommended action of getting involved in the PMTCT programme would benefit them possibly by allowing them to get early treatment (PMTCT) and or preventing them from infecting others.

The concept of perceived barriers (one's opinion of the tangible and psychological costs of the advised action) is when the pregnant women are frightened of enrolling for the PMTCT programme because of the possibility of being seen by the people they know in support group sessions, or when a woman knows one of the community health workers and is scared of her status being made known in the community.

Cues for action are the strategies used to activate readiness, for an example, the pregnant women can receive reminder cues for action in the form of incentives (such as key chain that say "protect your baby").

The concept of self-Efficacy (one's ability to take action) is applicable to pregnant HIV positive women and can be achieved by giving guidance such as information on when to start antenatal booking, when to enrol on PMTCT programme in order to be safe and protect the child.

2.7.Millennium Development Goals

In September 2000,189 countries adopted the Millennium Declaration that was translated into the Millennium Development Goals to be achieved by 2015. Eight goals were set of which goal four is aimed at the reduction of child mortality. This includes the reduction of the under five year's mortality rate and the infant mortality rate by two-thirds between 1990 and 2015. Goal one, which is eradication of extreme poverty and hunger, has as an indicator of prevalence indicating the proportion of children under five years of age who are underweight. Since 2000, South Africa has engaged in various processes to discuss infant feeding in the context of HIV. These consultations intensified from 2001 with the advent of the national Prevention of Mother to Child Transmission programme (PMTCT).

The PMTCT programme provides free commercial formula for six months for HIV infected mothers opting for replacement feeding for their infants. The integrated Management of Childhood Illnesses is a systematic approach to children's health which focuses on the whole child. This means not only focusing on curative care but also on prevention of disease. The approach was developed by the United Nations Children's Fund and the World Health Organization. The Integrated Management of Childhood Illnesses (IMCI) strategy is the primary child-care approach of choice for South Africa mainly targeting children less than five years. The major challenge has been to scale up IMCI implementation to tackle the millions of preventable under five deaths that occur each year in poor countries and thereby reach the fourth Millennium Development Goal of reducing these deaths by two-thirds by 2015 (Gombe, Mabaera, Tshimanga, 2006).

2.7.1. Epidemiology: Mortality and Morbidity of children under five years

In developing countries, about half of all childhood deaths, 4.9million, are caused by not more than five conditions: pneumonia, diarrhoeal diseases, malnutrition, measles and malaria. Everyday, almost 13 500 children die from them. In Mexico, diarrhoeal diseases are a major cause of death among children under five – accounting for about 1.5 million deaths every year. Children die because their bodies are weakened through rapid loss of fluids and are undernourished through lack of food. And parents often fail to recognize the danger signals before it is too late. Yet most of these child deaths could be prevented. Up to 90% of diarrhoeal deaths can be prevented through the use of low-cost oral rehydration therapy (ORT) and continued feeding.

Some of the factors widely believed to have contributed to Mexico's success in reducing diarrhoeal deaths are the increase in education levels among women, strong political commitment, adequate resources, and the existence of well trained health professionals in the diarrhoeal control programme with extensive experience of the case management strategy. The Mexican Government is now building on the success of the ORT treatment to make use of the broader IMCI strategy to further reduce deaths among children under five. The more recent data showed that childhood mortality rates from diarrhoea in Africa remained high, the rates were similar to those found in South Asian studies and were consistently higher than in Latin America. Persistent diarrhoea (duration more than 14 days) is also responsible for significant childhood mortality in Sub-Saharan Africa, where rates of 6.6 to 43 deaths per 1000 children a year have been observed (Hamer, Simon, Thea, and Keusch,1998: 4). South Africa is undergoing demographic and epidemiological changes. The country is also facing a triple burden of diseases associated with the epidemiological transition, namely, communicable diseases associated with poverty e.g. TB, malaria, sexually transmitted infections including HIV and AIDS, non-communicable diseases associated with lifestyles, and trauma and violence.

2.7.2. HIV and AIDS in relation to childhood illnesses

HIV infection is very common amongst children in South Africa; it is estimated to account for almost half of all deaths in children below five years of age. Preventing HIV infection in children is therefore the best way to reduce child mortality rates in South Africa. This can be done through prevention of primary infection (in adults) and through prevention of mother to child transmission of HIV infection. Early diagnosis of HIV, and initiation of Antiretroviral Therapy (ART) and other treatments, can also prevent many deaths from HIV in children. Children less than one year of age are mostly at risk of developing serious complications and dying from HIV infection, therefore it is most important that these children are identified, and placed on treatment. South Africa was one of the first countries to include assessment and classification of HIV infection in the IMCI case management process and chart booklet. The possibility of HIV exposure or infection is frequently ignored in children presenting to Primary Health Care settings in South Africa for both well-baby care and sick visits. Using IMCI guidelines does not guarantee that every HIV infected child will be identified (the current South African IMCI criteria have a 23 - 73% sensitivity during infancy), but the guidelines' insisted that the possibility of HIV be considered in every child increases the chances of making the diagnosis, starting appropriate Cotrimoxazole prophylaxis and commencing antiretroviral therapy earlier all potentially life-saving measures (Saloojee, 2007:173)

2.8. Factors that Prevent Pregnant Women from Participating in the PMTCT Programme

In addition to the theoretical perspective on health seeking behaviour, the section of this chapter covers empirical findings on factors that prevent pregnant women from participating in the PMTCT programme. Access to good and comprehensive reproductive health services is a basic human right and can help to prevent primary HIV infection and vertical transmission. If women cannot access family planning advice, treatment of reproductive or antennal care, they are unlikely to be exposed to

interventions to prevent transmission (Jackson, & Jenkins-Woelk 2006: 204). Many factors can prevent women from getting advice or treatment for themselves when they are sick. Information on such factors is particularly important in understanding and addressing the barriers women may face in seeking care during pregnancy and at the time of delivery.

2.8.1. Stigma, discrimination and denial

Research on stigma and discrimination has generally been bedevilled by conceptual problems and in Eastern Cape like all other countries in the region, a strong research agenda has not been developed on stigma related to HIV/AIDS. Existing research shows little consensus about how to best measure attitudes towards people living with HIV. What needs to be measured is subject to change as the epidemic and intervention programmes develop (Feldman & Maposphere (2002:116). In his study conducted in the Eastern Cape Province on the quality of care and discrimination in health care. The study shows that, the female respondents' discussion of the quality of health care focused mainly on how comfortably they felt with their care, especially their experience of discriminatory or patronising behaviours by health care workers, rather than of the efficacy of treatment. Besides discrimination, discomfort with male nurses was the only other element of quality of care that women commented on, with over 40% of the pregnant women on the survey feeling ill at ease when male nurse examined them (Feldman & Maposphere 2002:130).

2.8.2. Discomfort and Lack of Privacy

Discomfort and lack of privacy felt by pregnant women reflect that much stronger sensitivities about protecting bodily privacy. Lack of privacy should be considered seriously by health professionals, especially in small communities where a patient and nurse may be known to each other. According to Jackson & Jenkins-Woelk 2006: 204, lack of privacy may take many forms including open hostility and rudeness, differential

treatment and betrayal of confidentiality. Hostility and rudeness manifest themselves in several ways, for example, in a study conducted by Feldamn and Malposphre (2002: 140) it was stated that women who participated in the study complained that nurses scolded them, especially when they were pregnant, as they advised women who are infected with HIV not to have children. Sometimes the rudeness took the form of verbal abuse and undermining comments or calling a woman by names and telling her that the baby would not survive (Feldamn & Malposphre 2002: 150). The respondents reported that the health care workers disclosed their HIV status without their consent. The researcher further notes that, to avoid breaches of confidentiality and being discriminated against, some women did not disclose their HIV status in health care facilities, including antenatal, maternity or baby clinics. All these factors negatively impact on the access and quality of care for pregnant women.

2.8.3. Availability of Antiretroviral Drugs or Antiretroviral Therapy (ART)

It is quite widely accepted that ART could help reduce the incidence of MTCT due to reduced transmission following reduction of an individual's HIV-viral load. Another positive prevention effect is that ART leads to a reduction in denial, stigma, and discrimination as ART treatment becomes available and renders HIV/AIDS as a chronic and manageable disease rather than fatal condition (Jackson *et.al,* 2006:204). Availability of ART encourages individuals to come forward for voluntary counselling and testing (VCT).This practisewould probably be complimented by the reduction of stigma and discrimination associated with more people knowing their HIV status. However, Feldman and Maposphere (2002:155) argue that treatment optimism can have a negative effect on the prevention behaviour of people living with HIV, who may be more likely to engage in sexual risky behaviour, because they believe treatment will make them or their partners less infectious or that HIV infection is a less serious condition than before. However, the evidence that treatment optimism has had negative impact on prevention behaviour in the developed world is inconclusive and there has been little work done on understanding this issue although this is likely to become an area of interestFeldman and Maposphere (2002:155).

2.8.4. Personal Susceptibility to Risk

According to Wight, Abraham and Scott (1998: 317-330), who drew much on their experience on the HBM, understanding of risk is often culturally specific, varying with social context, age, gender, educational level and other demographic characteristics. Wight *et.al,* (1998: 110) also argue that people are now living in an era characterised by a high sense of individualism, and the understanding of risk is closely related to how much of experience is attributed to fate or forces beyond control (Wight *et. el,* 1998: 180). Anticipated severe consequences of an event only threaten individuals who accept that they are personally at risk. Wight et al (1998: 200) argue that personal susceptibility can be promoted by identifying and undermining stereotypes by which individuals dissociate themselves from those recognised to be at risk. This view is supported by the Zimbabwe Demographic and Health Survey of 2005-2006. According to Zimbabwe Demographic and Health Survey, several women who participated in the survey thought that HIV/AIDS did not apply to married women. It was reported they only applied to women they termed 'loose women' or commercial sex workers. The belief that HIV/AIDS is a special attribute of those with exceptionally high partner turnover or those who engage in distinctive sexual practices undermines a pregnant woman's personal susceptibility (Wight *et. al.* 1998: 211).

2.8.5. Psychological factors

In Zimbabwe Demographic and Health Survey of 2005 -2006 (Zimbabwean Government 2006: 11), 50 % of the women who participated in the survey reported that they knewnothing about HIV prevention before they found out they were HIV positive. However, some acknowledge that they had heard of HIV/AIDS, but they did not see how this knowledge applied to them. More commonly, women actively distanced themselves from anything to do with HIV so that it would not apply to them. This is very common in dealing with difficult or unacceptable information. Distancing oneself from HIV was easier for those who saw themselves as keeping to strict rules of marital and

sexual relations. Those perceived to be at risk were frequently seen as other types of women, who did not keep to these strict rules (Zimbabwean Government 2006: 15-18). The survey indicated that the participants viewed HIV/AIDS as an attribute of 'those types of people' rather than as an infectious virus. This contrasts with Mate's argument (2002:330), that women put themselves at risk of HIV infection because they have low self esteem. According to Cartwright (as cited by Mbizvo,. Kasule, Mahomed and Nathoo (2001:410), knowledge is a prerequisite for any behavioural change to take place. Cartwright argues that, even if a woman is aware of the dangers of MTCT on HIV infection, she has to make decisions about the implications of disclosure of her status in a community which still harbours fears and stigma. This view is further supported by Basset and Mhloyi (1999:230) and Mate (2002:98). Mate (2002 155) states that a women is faced with weighing up the social risks of disclosure against the mental and physical health risk of not disclosing. There is usually fear of rejection and blame if they disclose their status. Constraints related to exclusive breastfeeding are said to bring emotional challenges to a mother who would have to fight the temptation to breastfeed a baby sleeping next to her and crying to be breast-fed. Women are also pressured to explain as to why they are not breast feeding if they choose the option not to breastfed (Mate 2006: 180).

2.8.6. Social Approval

Wight *et.al,*(1998:228) note that when an individual assesses the benefits of an action before engaging in it, as noted above perceived social rewards, approval and social costs are often important. According to Wight *et.al*. (1998:110), the belief about what others think and do can have an important impact on behaviour. Women's perception on the MTCT prevention strategies open to them in Zimbabwe have to be understood within the context of common expectations of social relationships and marriage, which include having children and obeying 'your husband.' Although a woman often expresses anger and resentment at the control exercised by their sexual partners, marriage is one of the few ways that women can ensure their sexual status and economic security.

Jackson *et.al*, (2002:206) observed that, even if a woman endorsed the benefits of the prevention of MTCT programme, due to lack of decision-making powers, decisions about her reproductive health care may be depending on her husband, in-laws and sometimes other members of the extended family. This argument is further addressed by Kanyemba, Gregson, Nyamukapa, & Mlilo (2000: 234). The authors observed that deeply held traditional beliefs in male superiority give men almost total control over their wives. As a result some women may not take important decisions without permission from their spouses or male relatives.

2.9. SUMMARY

This chapter has outlined several studies that have been done on the PMTCT. The debate on the studies shows importance of prevention of mother to child transmission during these stages: antenatal, labour and delivery so as to reduce HIV in children less than 5 years.

Participation of the pregnant women in the PMTCT programme, understanding and knowledge of PMTCT programme and accepting attitudes towards those living with HIV will decrease the transmission of mother to child and consequently reducing mortality rate of mothers and children during pregnancy, delivery and postnatal.

CHAPTER THREE METHODOLOGY

3.1. INTRODUCTION

The research methodology outlines a logical process of the research and what processes and procedures are followed to answer the research question and achieve the research objectives (Mouton 2001:56). This chapter describes the steps taken to achieve the study objectives. These steps include the types of study design chosen, study setting, study population, study sample, sampling procedure, research instrument, validity and reliability, data collection method and data analysis and lastly the ethical considerations.

3.2. Study design

Burns and Grove (2009:40) define a research design as a blue print for the conduct of a study that maximizes control over factors that could interfere with the study's desired outcome or findings. Polit and Beck (2008:66) define research design as the overall plan for obtaining answers to the research question being studied including specifications for enhancing the study's scientific integrity. Burns and Grove (2009:42) define it as a logical framework that guides the researcher in the process of collecting, analyzing, and interpreting the data**.** It is essentially the architectural backbone of the study. The researcher used a descriptive, non-experimental design and quantitative research approach in this study.

3.2.1. Descriptive design

Descriptive design is described by Burns and Grove (2009:239) as a research design that provides an accurate portrayal or account of characteristics of a particular individual, situation, or group. It is a way of describing what exists, discovering new meaning, determining the frequency with which something occurs and categorizing

information. These studies are usually conducted when little is known about a phenomenon. The purpose of descriptive studies is to observe, describe, and document aspects of a situation as it naturally occurs and sometimes to serve as a starting point for hypothesis generation or theory development (Burns & Grove 2009:26; Polit & Beck 2008:274). In this study descriptive design was used to assess the knowledge, attitude and behaviour of pregnant women towards prevention of mother to child transmission.

3.3.2. Study setting

The study was carried out at Buffalo City Metropolitan District Municipality. The five clinics are situated in East London. East London is a town found in Buffalo City Metropolitan District that forms part of the Amathole District Municipality. Buffalo City Metropolitan District is dominated by Xhosa and English speaking people. The municipality has three referringhospitals and three health centres, many industries, tertiary institutions and senior secondary schools. There is a high rate of pregnancy especially of women at the age of 16 years to 35 years. Buffalo City Metropolitan sub-District has 118clinics rendering primary health services to all age groups including pregnant women.

3.4. Study population

The population is all the elements (individuals, objects, or substances) that met certain criteria for inclusion in a given universe (Burns and Groove 2009: 40). Babbie and Mouton (2001:174) define a population as an aggregation of elements from which the sample is actually selected. Supported by Polit and Beck (2008:337), the study population is defined as the entire aggregation of cases in which the researcher is interested. In this study the population was all pregnant women in Buffalo City.

3.5. Target population

Burns and Grove (2009:342) define a target population as the entire set of individuals or elements who meet the sampling criteria whereas Polit and Beck (2008:338), define it as the total group of subjects about whom a researcher is interested and to whom results could reasonably be generalized. The target population in this study were all pregnant women that were attending antenatal clinic at five Buffalo City Metropolitan clinics in East London. In each clinic approximately 18 pregnant women recruited on Thursdays during the follow up visits.

3.6. Sampling procedure

According to Burns and Groove (2009: 34) sampling is a process of selecting subjects, events, behaviours, or elements for participation in a study. The study used convenience purposive sampling where HIV-positive pregnant women visiting the clinic for the second visit agreed to participate in this study. A convenient purposive sample of HIV positive pregnant women who were available during the data collection period were selected for this study. In each clinic there were approximately eighteen HIV positive pregnant women recruited for the study once a week resulting in a total of 82 respondents to be utilised.

3.6.1. Sample

A sample is a subset of the population that is selected for a particular study to represent a population and the member of a sample is the subject (Burns and Groove 2009: 34). A convenience sample of 82 respondents (based on the number of pregnant women who visit the clinic for follow up on monthly bases from the five selected clinics) were selected for this study, although only 52respondents filled in the questionnaires. The sample was determined by the help of a statistician based on alpha of 0.05, a power 0.80 and medium effect size of 0.3.

3.6.2. Inclusion criteria

All HIV positive pregnant women whowere 18 years and above attending ANC at the five selected Buffalo City Metropolitan clinics and agreeing to participate in the study were included in the study.

3.6.3. Exclusion criteria

All other pregnant women who were HIV negative attending ANC in BCMM.

3.7. Data collection instrument

The researcher developed questionnaires with the assistance of the supervisor as a tool of collecting the data. A questionnaire is simply a ‘tool’ for collecting and recording information about a particular issue of interest. It is mainly made of a list of questions, but should also include clear instructions and space for answers or administrative details (Burns & Groove 2009: 42). The questionnaires consisted of items which required answers to Yes or NO as well as multiple choice and Likert scale type of questions.The questionnaires weredivided into four sections:

Demographic data of pregnant women (respondents)
Knowledge and attitude regarding PMTCT
Knowledge, attitude and sex practices regarding HIV transmission
Knowledge about feeding options

3.7.1. Validity

According to Kumar (2005:153), Validity is the ability of an instrument to measure what it is designed to measure. The important thing is to make sure that the instrument is measuring what it is intended to measure for the particular people in a particular context and that the interpretations we make on the basis of the test scores are correct. All items used in the questionnaires had gone through some validation by checking the

questionnaires for correct interpretation. The validity of an instrument is a determination of the extent to which the instrument actually reflects the abstract construct being examined (Burns and Groove 2009: 376). A pilot study was used to check or assess if the instrument addresses and measure what it is supposed or intend to measure. There are many ways of ensuring validity (Cohen, Manion, Morrison 2009: 105-6), one of which is to devise and use an appropriate instrument. Questionnaires were tested with three pregnant women who were attended ANC clinic and in order to ensure validity; questionnaires were adjusted on the basis of the responses and comments that were received from the pre-test. An effort was made to ensure that the questions asked are related closely to the objectives of the study.

3.7.2. Reliability

Reliability of a measure denotes the consistency of measures obtained in the use of a particular instrument and is an indication of the extent of random error in the measurement method (Burns and Groove 2009:374). It is a degree to which the same measurement scale is administered to the same individuals at two different times; the measurement is reliable if the individual's responses to the items remain the same.
To measure reliability of the instrument, a Pilot study was conducted to check people's understanding and ability to answer the questions, highlight areas of confusion and look for any routing errors, as well as providing an estimate of the average time each question will take to complete. Any amendments highlighted by the pilot study were made to the questionnaire before making a final decision.

3.8. Pilot study

Pilot study which is sometimes referred to as a preliminary study, that was a small scale study conducted prior to the main study on a limited number of subjects from the population at hand. Its purpose was to investigate the feasibility of the proposed study and to detect possible flaws in data collection instruments such as ambiguous

instructions or wording (Brink 2007, 166). According to Brink (2006: 54), unforeseen problems can arise in the course of a subject and the researcher can recognise and address these problems if a pilot study has been conducted. In this study one of the five clinics was selected to conduct the pilot study and questionnaires were given to a small sample of three respondents before use for reliability and validity**.** This assisted the researcher indetermining the ease or difficulty of the participant's understanding of the questions asked.

3.9. Data collection method

The researcher targeted all the HIV positive pregnant women that are coming for antenatal care at the clinic for follow up visits during the period of data collection. A private room was provided for them, and they were invited to participate after the study and its purpose had been explained to them and they had been given time to ask questions. The respondents were given consent forms and after the consent forms have been signed they were given questionnaires to answer.

3.10. Ethical consideration

Ethics consider justice, generosity, trust, faithfulness, love and friendship. All these ends reflect respect for the other person (Burns and Groove 2009:61). Polit and Beck (2008:753) define ethics as a system of moral values concerned with the degree to which research procedures adhere to professional, legal and social obligations to the study participants.

For any research, the research process starting with identification of the study to publication of the findings should adhere to ethical standards of research which means that the respondents' rights and the rights of the institution should be protected. Scientific integrity should also be maintained. In this study it included aspects such as informed consent, privacy, confidentiality and anonymity, fair treatment, respect and dignity as well as the right to withdraw (Burns & Grove 2009:83, 176).

The research proposal was submitted to the University of Fort Hare ethics committee for ethical clearance. Permission to conduct the study was sought from the Eastern Cape Department of Health Research Committee and was obtained from the District Manager of Buffalo City Sub district. Informed consent was also obtained from the participants after the explanation of the purpose of the study and they have been assured of confidentiality. The respondents were informed that participation in the study is voluntary. The purpose of the study was explained to all of the respondents so that they could make informed decisions about whether or not to agree to the interviews. The respondents were assured that even if they decided to stop at any time during the data collection process they would not be prejudiced in any way.

- **Protecting the rights of the participants**

The study involved human subjects as respondents thus the following were done to protect their rights:

- **Informed consent**

Obtaining informed consent (see annexure 5) from human subjects is essential for the conduct of ethical research. It involves the transmission of essential ideas and content of the research from the investigator to the prospective subject and then the prospective subject's agreement to participate in the research as a subject is reached after assimilation of the essential information. Informed consent consists of four elements i.e. disclosure of essential information, comprehension, competency and voluntarism (Burns & Grove 2009:193).

To ensure adherence to this stated ethical standard, a written informed consent explaining the objectives, the benefits and potential risks of the study was obtained from each respondent. The respondents signed or put a thumb print on the consent form after voluntarily accepting to participate in the study.

- **Right to withdraw from the study**

Prospective respondents in a study have a right to self-determination i.e. they have a right to ask questions, refuse to give information, ask for clarification and discontinue participation or withdraw from a study at any time without penalty or loss of benefits (Burns & Grove 2009:194, Polit & Beck 2008:172).
In this study, the respondents were informed of their right to withdraw from the study at any time they wish so if they feel uncomfortable. They were also assured that their withdrawal will not affect their access to all health services offered by Buffalo City clinics to themselves and their families.

- **Privacy**

Participant's privacy was considered as they will still be employed by their departments. In the questionnaires no names were used if there was a need to use names, the names would be created and their real names were not used. They can also be named anonymous or participants number so and so. Privacy and feelings were acknowledged and sensitiveness was considered when the participants were reluctant or hesitated to give answers.

- **Confidentiality and anonymity**

Confidentiality is defined as the management of private data so that subjects' identities are not linked with their responses and are never publicly disclosed whereas anonymity is when the subject's identity cannot be linked even by the researcher with his or her individual responses (Burns & Grove 2009:728, 731).
To ensure confidentiality and anonymity, especially that the respondents were belonging to vulnerable group (i.e. HIV positive mothers) respondents were assured that all their responses and information obtained from them during the study will not be disclosed to anyone. All study materials like questionnaires were free from personal identifiers and no addresses of the respondents were included on the data collection

tools to avoid any unfair treatment or possible exploitation of the respondents. For the purpose of confidentiality, data was coded with numbers instead of names.

All the information received from the participants was treated confidentially and was locked away. No unauthorized person would have access to the information locked except those accepted to do so or the researchers. They were assured that no relative, family member or friends would have access to the research findings unless where the respondent gave permission. They were also assured that the information given would remain confidential and they were no detrimental consequences from the answers given. The information would only be used for the study and to improve the quality of patient care.

- **Respect for human dignity**

Respect for human dignity includes the right to self-determination and the right for full disclosure. A respondent's right to self-determination includes freedom from any explicit or implicit threats of penalty from failing to participate in a study or excessive rewards from agreeing to participate. Full disclosure means that the researcher has fully described the nature of the study; the person's right to refuse to participate, the researcher's responsibilities, and the likelihood of risks and benefits (Polit & Beck 2008:171-172).

To ensure respect and dignityfor the respondents, before signing the consent all the respondents had to be briefed about the study objectives, their rights, the benefits and potential risks. Data collection was done in a socially conducive environment and secluded venue. The researcher avoided any form of coercion to force the respondents to participate and no rewards were given to those who accepted to participate in the study.

Fair treatment

People were not treated, or given information before hand. Only those selected from the sampling with sampling approval were used and no preferences were made. There was no discrimination, and no risk noted. The subject's rights and the rights of others in the setting were protected. If the purpose appears to infringe on the rights of the subjects, it should have been re-examined and may have been revised or abandoned. There are usually some risks in every study, but the value of the knowledge generated should outweigh the risks (Burns and Groove 2009:83).

3.11. Data analysis

Data were analysed using the Statistical Package of Social Sciences (SPSS) software, version 17.0. The significant level was set at 0.05. Descriptive statistics was used to describe and summarise data with the assistance of a statistician. Data was converted and condensed in an organised, visual presentation or picture in the form of table and graphs, so that the data have some meaning for the readers of the research report (Pallant, 2010: 56). A descriptive approach employs measures such as frequency distributions, measures of the central tendency and dispersion or variability, and measures of relationships (Brink, 2006:17). Demographic data and responses from the questionnaire were analysed through frequency counts. The results of this study are presented in percentages, tables and histograms (Brink, 2006: 172).

3.12. SUMMARY

This chapter described and discussed the research design and methodology used in the study, including population, sample and sampling procedure, data collection instrument, validity and reliability, data collection and ethical consideration.

CHAPTER FOUR – RESEARCH FINDINGS

4.1. INTRODUCTION

In this chapter, the data has been analysed, and through analysis of the data the respondents tried to answer the questions provided r.
This chapter also presents analysis on the following sub-sections:

- Demographic data of the clients
- Basic knowledge questions
- Questions on MTCT
- Questions on Infant feeding
- Their attitude towards PMTCT

4.2. Clinic location and type

A total of 5 clinics were visited during the study. All the 5 clinics are situated at Buffalo City Metropolitan Municipality under Amatole District in the Eastern Cape.

PART I.

4.3. Demographic data

4.3.1. Age

Mean age ± SD: 27.5 ±5.8

Valid	Frequency	Percent	Valid percent	Cumulative percent
15-20	10	10.0%	10.0	10.0
21-25	25	25.0%	25.0	35.0
26-30	12	12.0%	12.0	47.0
31-35	5	5.0%	5.0	52.0
Total	52	52%	52	52

Table 1.

According to the results represented in the table above, out of 52 (100 %) pregnant women, 25%were between 21-25 years, 12% were between 26-30, 10% were between 15-20 while 5% were between 31-35.

4.3.2. Marital status

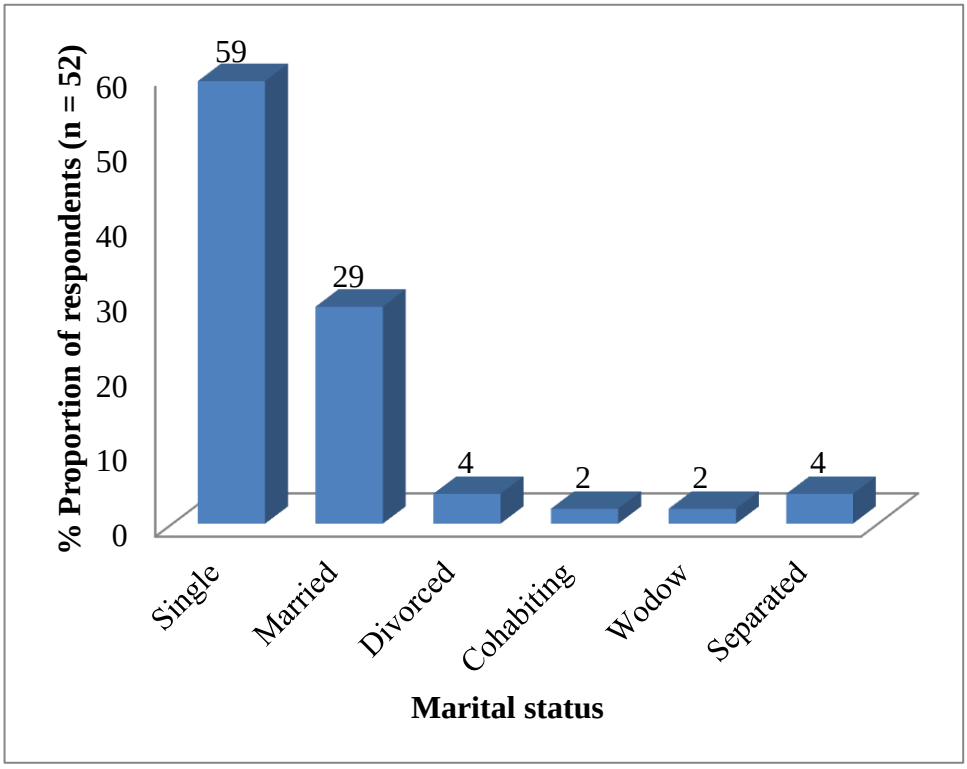


Figure 1 Marital status of respondents

According to the results represented in the figure above, out of 52 (100 %) pregnant women, 59% were single while 29 % were married. Four percent were divorced, 2 % were cohabiting, and 2% widowed and 4% separated.

4.3.3. Level of education

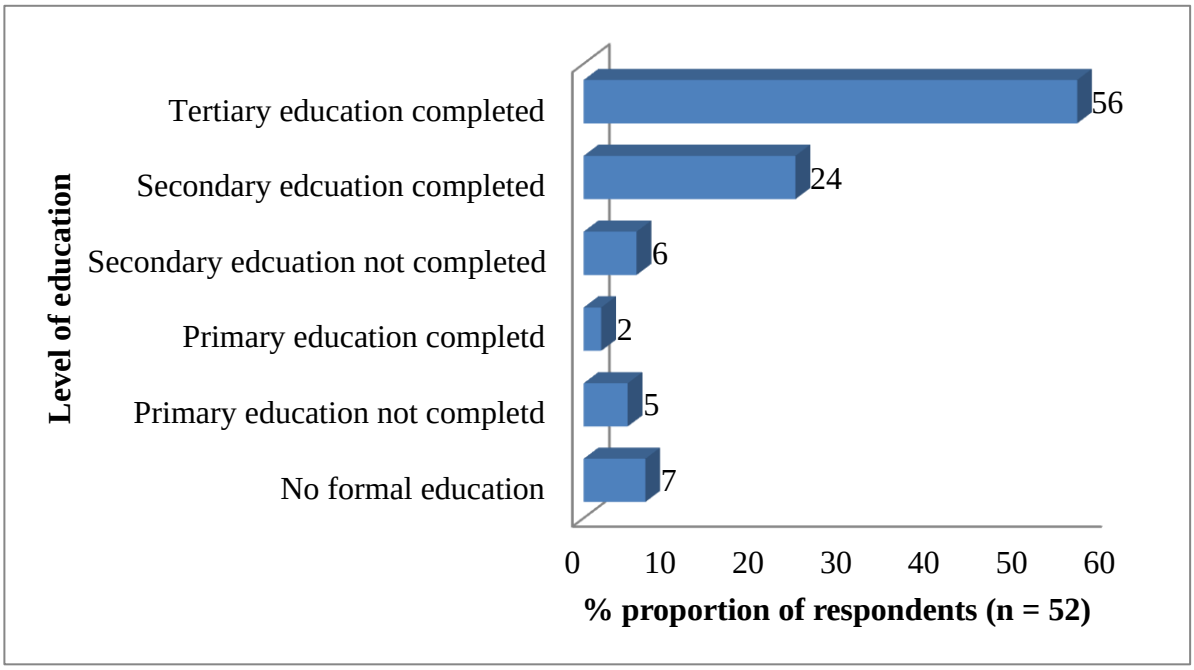


Figure 2 Level of education of respondents

The figure above shows that out of 52 (100%) respondents, 56% completed tertiary education, while 24% completed secondary education, 6 % did not complete secondary education, 2% completed primary education, 5% did not complete primary education and 5% have no formal education.

4.3.4. Current occupation

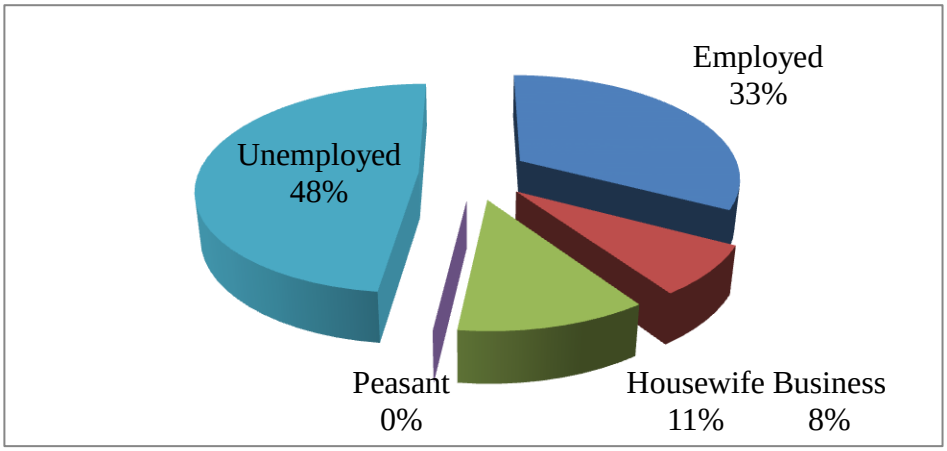


Figure 3 Occupations of respondents

Figure 3 above shows that out of 100%, 48 % were unemployed, while 33% were employed. Eight percent were on business, 11% were housewives and 0 % was peasants.

4.4. PART II

Basic knowledge questions

4.4.1 Do you know how HIV is transmitted?

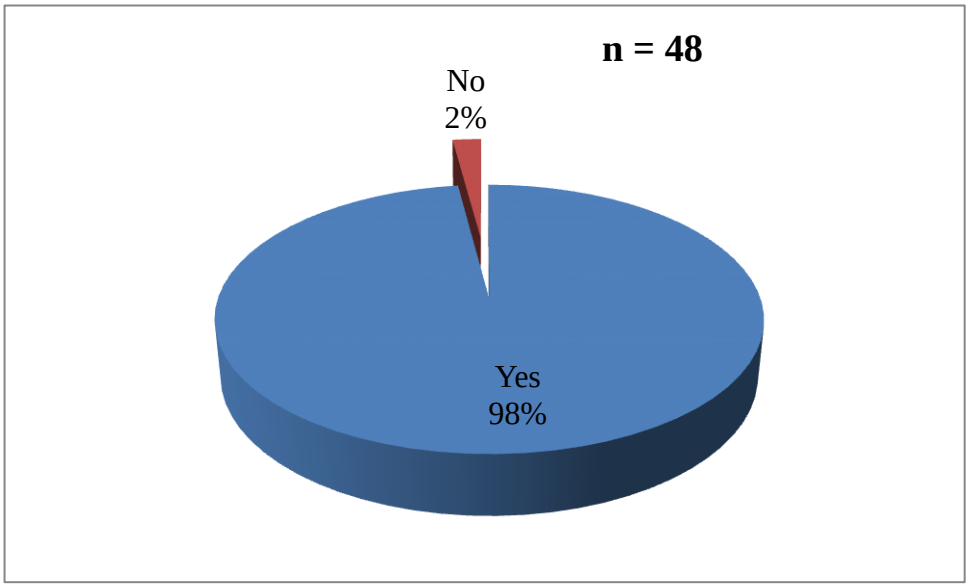


Figure 4 Knowledge of HIV infection

In the figure above out of 52 (100 %) 98 % knew how HIV is transmitted while 2 % did not know.

4.4.2. Knowledge of ways of transmission

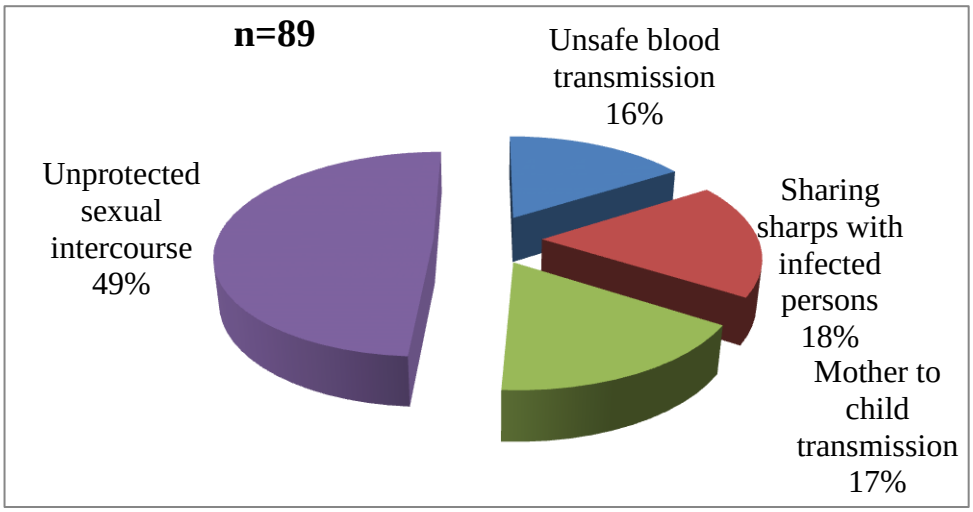


Figure 5 Ways of transmission of HIV

In the figure above out of 52 (100%) respondents, 49% stated that they knew that transmission is caused by practising unprotected intercourse, 16% knew that it is caused by unsafe blood transmission, 18 % knew that it is caused by sharing needles with infected persons and 17% knew that it is transmitted from the mother to the baby.

4.4.3. Knowledge of risks of acquiring HIV

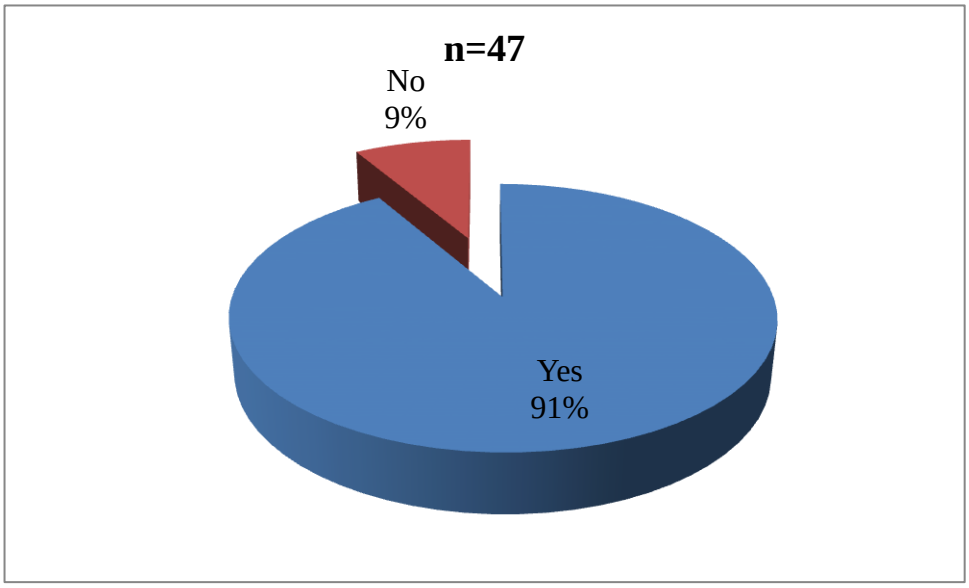


Figure 6 Knowledge of risks of acquiring HIV

In the figure above out of 52 respondents (100%) 91% knew the risks of acquiring HIV while 9% did not know the risks of acquiring HIV.

4.4.4. Can you mention ways of preventing someone from acquiring HIV? Appropriate)

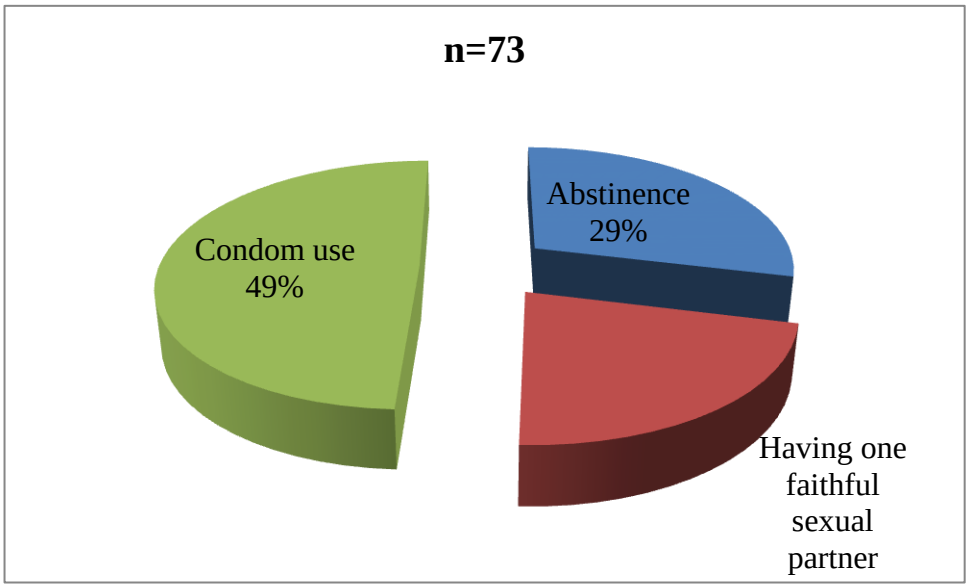


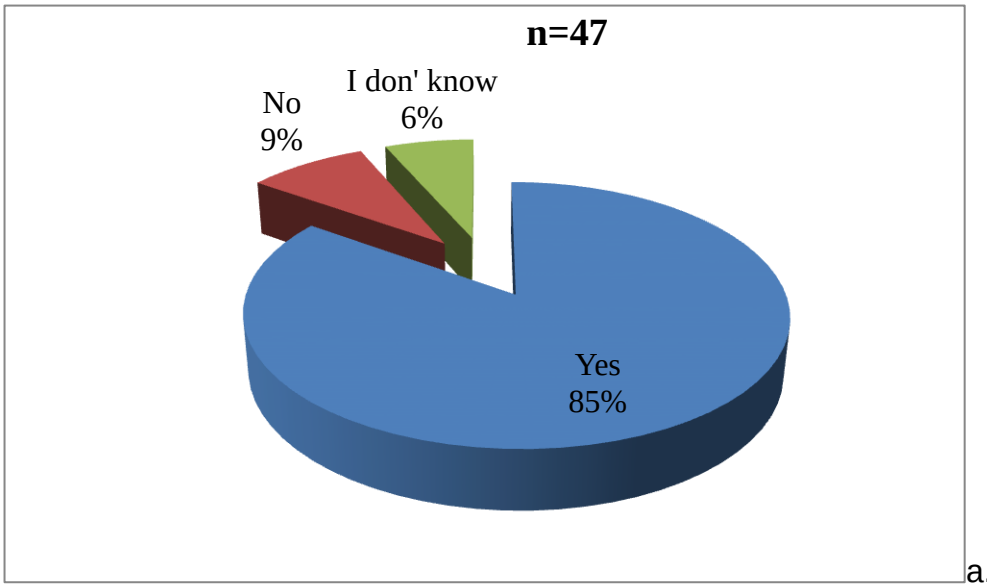
Figure 7 Ways of preventing someone from acquiring HIV

In the figure above out of 52 respondents (100), 49% knew that condom use is the way of preventing someone from acquiring HIV, 29% knew that Abstinence is the way of preventing someone from acquiring HIV and 22% knew that faithful relationship is the way of preventing someone from acquiring HIV.

4.5. PART III

QUESTIONS ON MTCT

4.5.1. Can an infected mother transmit HIV virus to her child?



a. Yes

Figure 8 Can an infected mother transmit HIV virus to her child?

In the figure above, out of 52 respondents (100%) 85 % knew that an HIV positive mother can transmit HIV virus to her child, while 9% said an HIV positive mother can not transmit HIV virus to her child and 6% did not know.

4.5.2. When does an infected mother transmit the infection to her child?

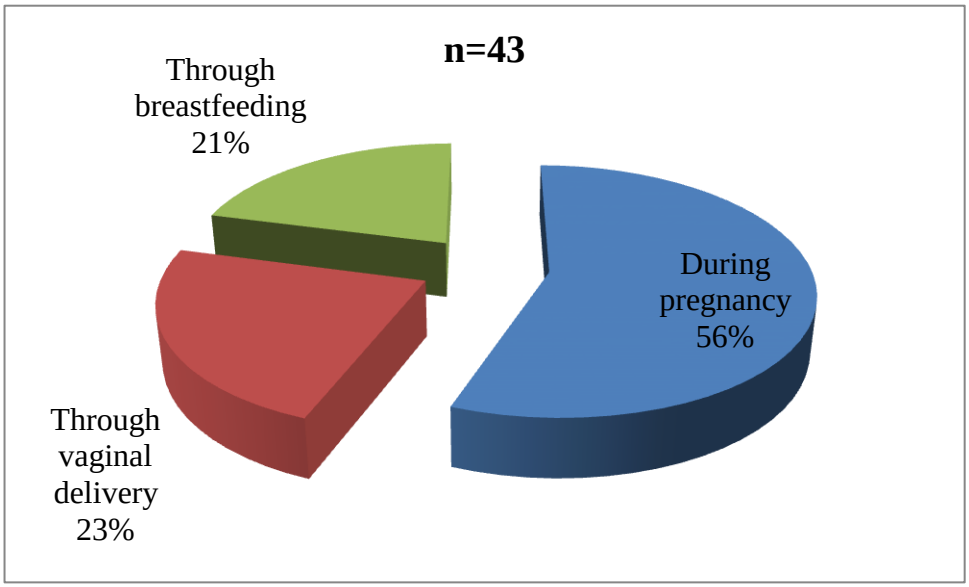


Figure 9 when does an infected mother transmit the infection to her child?

In the figure above, out of 52 respondents (100%) 56 knew that an infected mother can transmit the infection to her child during pregnancy, while 23% said the infected mother can transmit the infection through vaginal delivery and 21% knew that they can transmit it through breast feeding.

4.5.3 Is there medication given to the mother during pregnancy to reduce MTCT?

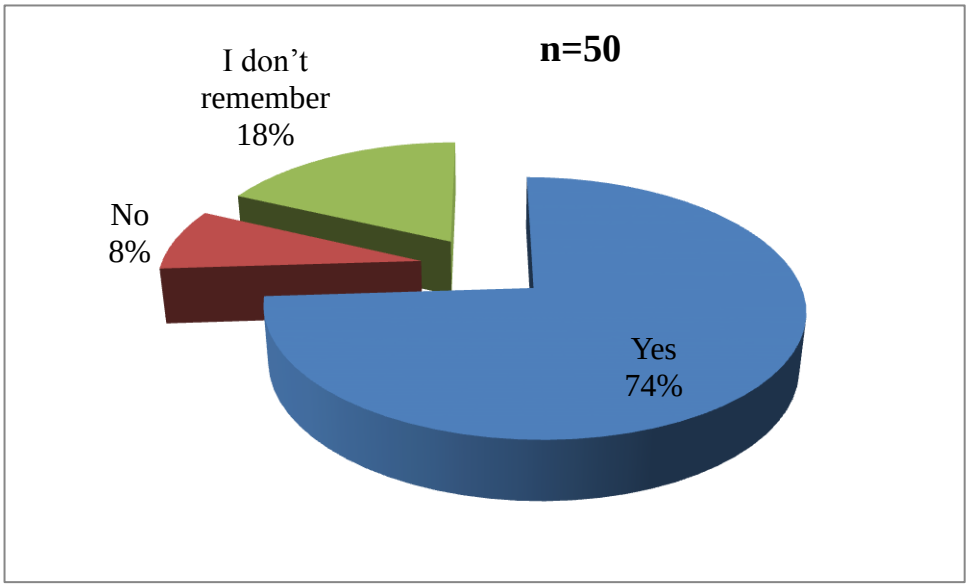


Figure10 Is there medication given to the mother during pregnancy to reduce MTCT?

In the figure above out of 52 respondents (100%) 72% knew that there is medication given to the mother during pregnancy to reduce MTCT, while 8% do not know if there is medication given to the mother to prevent MTCT and 18% do not remember.

4.6. PART IV

QUESTIONS ON INFANT FEEDING

4.6.1.What conditions/risk factors in a mother during breastfeeding increases the risk of MTCT?

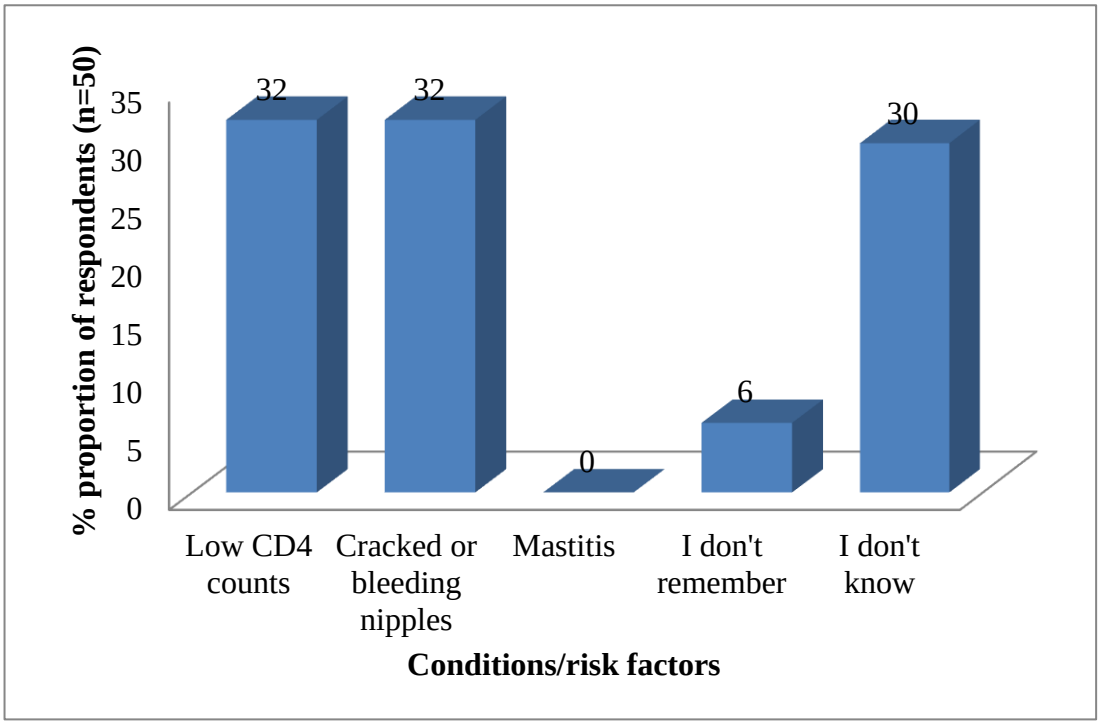


Figure 11 Conditions/risk factors in a mother during breastfeeding that increases the risk of MTCT?

In the figure above out of 52 respondents (100%, 32% knew that the low CD4 count can increase the risk of MTCT during pregnancy, while another 32% knew that cracked or bleeding nipples can increase the risk of MTCT during pregnancy. Thirty percent did not know the risks, 6% did not remember and zero percent said mastitis can increase the risk of MTCT during pregnancy.

4.6.2. What conditions in an infant increase the risk of acquiring HIV infection during Breast feeding?

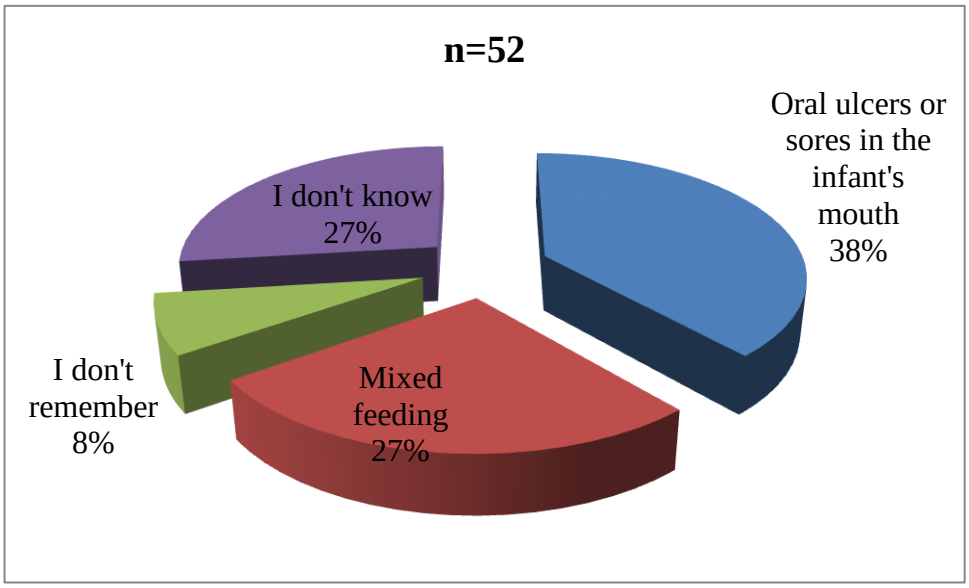


Figure 12 Conditions in an infant that increases the risk of acquiring HIV infection during breastfeeding.

In the figure above, out of 52 respondents (100 %) 38% knew that oral ulcers in the infant's mouth can increase the risk of acquiring HIV infection during breastfeeding. Twenty seven percent knew that mixed feeding can increase the risk of acquiring HIV infection during breastfeeding, while 27% did not know the risks and 8% did not remember.

4.7. PART V

QUESTIONS ON ATTITUDE TOWARDS PMTCT

	Questions on attitude towards PMTCT	Proportion of respondents				
		Strongly agree	**Agree**	**No opinion**	**Disagree**	**Strongly disagree**
4.7.1	It is important that every pregnant woman gets tested for HIV	29 (46.8%)	30 (48.4%)	3 (4.8%)	0 (0%)	0 (0%)
4.7.2	If one is infected with HIV then she should not get pregnant again	9 (17.6%)	5 (9.8%)	15 (29.4%)	13 (25.5%)	9 (17.6%)
4.7.3	Using protective gears (condoms) during pregnancy and breastfeeding reduces MTCT	12 (23.1%)	22 42.3%)	17 32.7%)	1 (1.9%)	0 (0%)
4.7.4	Some women opt to breastfeed despite their HIV status due to stigma	7 (13.7%)	17 (33.3%)	23 (45.1%)	4 (7.8%)	0 (0%)
4.7.5	Some women opt to breastfeed despite their HIV status due to poverty	11 (22.4%)	11 (22.4%)	12 (24.5%)	8 (16.3%)	7 (14.3%)
4.7.6	Some women opt to breastfeed despite their HIV status due to fear of disclosure	4 (7.7%)	20 (38.5%)	19 (36.5%)	3 (5.7%)	6 11.5%)
4.7.7	My family will support my choice of feeding the baby	27 (60%)	10 (22.2%)	7 (15.6%)	0 (0%)	1 (2.2%)
4.7.8	Do you support the strategies of PMTCT?	26 (60%)	18(35.3%)	7 (13.7%)	0 (0%)	0 (0%)

4.8. SUMMARY

This chapter presents results of data collected from participants. Questionnaires were the source of information to evaluate the knowledge, attitude, behaviour and practices of HIV positive pregnant women towards PMTCT. Graphs were used to display the data collected. Findings were made out of the data collected and analyzed. In the next chapter findings will be discussed and recommendations will be suggested to improve PMTCT program and service delivery.

CHAPTER 5

DISCUSSION, LIMITATIONS, CONCLUSION, AND RECOMMENDATIONS

5.1. INTRODUCTION

The purpose of the study was to determine the attitudes, knowledge and practices of HIV positive pregnant women towards prevention of mother to child transmission of HIV in Buffalo City Metropolitan Clinics, East London. In this chapter the analyzed data was discussed under the following headings: Demographic data of the clients, Basic knowledge questions, Questions on MTCT, Questions on infant feeding and their attitude towards PMTCT.

5.2. Demographic data of the clients

A total of 5 clinics were visited, where the researcher managed to have access to HIV positive pregnant women during support group time. Fifty nine percent of HIV positive pregnant women were almost single and young adults, while last 2% were widowed. These results are in line with other studies where it is highlighted that HIV infection has a high prevalence in the age group 15-24. According to the latest research results it is stated that one quarter of young adult women aged 20-24 are HIV infected (Abdool and Abdool 2008: 226). The results showed that out of 52 (100%) respondents, 56% had completed tertiary education; while 2% completed primary education. Forty eight percent respondents were unemployed, and 0% was peasants. According to literature, the overall annual number of deaths increased sharply between 1997, when 316,559, and 2006 when 607,184 people died. This rise is not necessarily due solely to HIV and AIDS but those who are particularly shouldering the burden of the increasing mortality rate are young adults. In the age group most affected by the epidemic, almost one in three women aged 25-29, are living with HIV. The link suggests that AIDS is the principle factor in the overall rising number of deaths (HCT Guidelines 2010: 2)

5.3. Basic Knowledge questions

Most of the participants (98%) have knowledge about how the HIV is transmitted as only 2% were unaware of HIV transmission. The participants also knew the ways of transmission of HIV as well as the risks of acquiring HIV. Forty nine percent knew that unprotected sexual intercourse is the way of transmission of HIV while 16 % knew that it is caused by unsafe blood transfusion. Ninety one percent respondents knew the risks of acquiring HIV while 9% did not know the risks of acquiring HIV. The results from knowledge section of the study were excellent because the highest score was 98%, meaning that most of the pregnant women have basic knowledge about HIV. These results were in contrast to their practises. According to literature women do not practice MTCT although they know how HIV is transmitted and also its consequences because of the fear of stigma. Mate (2006: 165) argues that, even if a woman is aware of the dangers of MTCT of HIV infection, she has to make decisions about the implications of disclosure of her status in a community which still harbours fears and stigma. Mate (2006: 155) also states that a woman is faced with weighing up the social risks of disclosure against the mental and physical health risk of not disclosing (Mate 2006:155). This view is supported by Basset & Mhloyi (1999: 230)

5.4. Knowledge on MTCT

Eighty five percent of positive pregnant women knew that an infected mother can transmit the HIV virus to a baby and of those 62% knew that initiation of anti-viral therapy during pregnancy can prevent the baby from transmission of HIV. These results are supported by (Project Literacy 2006:40). According to (Project Literacy 2006:40), for the PMTCT program to work and be acceptable, it needs to be known by the clients. PMTCT helps the individuals to know about their status so that they can make important choices for themselves and others. Among the important choices, medications for opportunistic infections, ARV's, behaviour change, and other HIV related aspects were included.

5.5. Knowledge on Infant feeding options

The participants knew about alternative ways of infant feeding as 60% of them knew about exclusive breastfeeding option while 21% knew about formula feeding option. They also knew about the conditions and risk factors that can increase MTCT during breast feeding. According to literature, although women knew about breast feeding option and formula feeding methods in practice, they seldom practice 100% exclusive breast feeding or 100% formula feeding. Women are also pressured to explain as to why they are not breast feeding if choose the option not to breastfed (Mate 2006:180). According to Millennium Development Goals, since 2000, South Africa has engaged in various processes to discuss infant feeding in the context of HIV. These consultations intensified from 2001 with the advent of the national prevention of mother to child transmission programme The PMTCT programme provides free commercial formula for six months for HIV infected mothers opting for replacement feeding for their infants. (Gombe, Mabaera, & Tshimanga (2006: 98).

5.6. Attitudes and behaviour towards PMTCT

Out of 100 percent, 48, 4% agreed that it is important for every pregnant woman to get tested while 0% strongly disagree, 42,3 % agreed that using condoms during pregnancy and breastfeeding reduces MTCT while 0% strongly disagree. These results are supported by (PAHO/WHO-UNICEF-CENSIDA 2006:3), which stated that the PMTCT programme helps HIV positive pregnant women to be able to prevent the transmission of the virus from them to their infants before, during and after delivery. They are also equipped with the information to treat opportunistic infections, nutritional practices, safe sex practices, follow the healthier life style and to prevent other strains of HIV that can be contracted through sexual intercourse.

Sixty percent of the respondents strongly agreed that they support the strategies of PMTCT while 0% strongly disagree that they support the PMTCT programme. These results are supported by Feldman and Maposphere (2002:155). According to Feldman and Maposphere (2002:155), availability of ART during pregnancy encourages

individuals to come forward for voluntary counselling and testing (VCT).This practisewould probably be complimented by the reduction of stigma and discrimination associated with more people knowing their HIV status.

5.7. SUMMARY

In this study an evaluation of the level of knowledge and attitude of positive pregnant women with regard to PMTCT in 5 Buffalo City Metropolitan Municipality clinics was conducted. It was found that some of positive pregnant women have better knowledge about PMTC though there were still those that need further education. Health education on PMTCT by Professional Nurses and lay councillors should be strengthened.

5.8. RECOMMENDATIONS

This study makes the following recommendations:

- The service providers, who are the professional nurses, should be provided with proper training on PMTCT program to improve their standard of service delivery and to capacitate them with knowledge and skills. Integration of HIV related health aspects during assessment and treatment of pregnant women should be strengthened, as the purpose of implementation of PMTCT was to reduce mortality rate by 50%, and also to reach the 4th Millennium Development Goal of reducing these deaths by two-thirds by 2015.
- Policies and guidelines should address the need for all professional nurses to be exposed to PMTCT training so as to reduce child mortality and morbidity rate in South Africa especially in the Eastern Cape.
- Further research is still needed that will examine issues around availability of support by health professionals to HIV positive women.

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Appendix I

QUESTIONNAIRE (English Version)

Introduction

I am a post graduate student at University of Fort Hare doing a research on knowledge, attitude and behaviour of pregnant women on PMTCT. We understand that you have received counseling and testing and we would like to ask you a few questions concerning that.

Respondent: circle the correct response

PART I.

Sociodemographic data

1. **Age**……. (Exact age)
2. **Marital status**

a. Single
b. Married
c. Divorced
d. Cohabiting.
e. Widow
f. Separated

3. **Level of education**

a. No formal education
b. Primary education not completed
c. Primary education completed

d. Secondary education not completed

e. Secondary education completed

f. Tertiary education completed

4 Current occupations

a. Employed

b. Business

c. Housewife

d. Peasant

e. Unemployed

PART II

BASIC KNOWLEDGE QUESTIONS

5. Do you know how HIV is transmitted?

a. Yes

b. No

If no skip question 6.

6. Mention ways of transmission of HIV (tick where appropriate)

a. Unsafe blood transfusion

b. Sharing sharps with an infected person

c. Mother to child transmission.

d. Unprotected sexual intercourse.

7. Do you know the risks of acquiring HIV?

a. Yes

b. No

If no skip question 8.

8. Mention the risks of acquiring HIV infection

a. Unprotected sexual intercourse with an infected person
b. Multiple sexual partners.
c. Having sexually transmitted infections.

9. Can you mention ways of preventing someone from acquiring HIV? (Tick where Appropriate)

a. Abstinence.
b. Having one faithful sexual partner.
c. Condom use.

10. Can a healthy looking individual be infected with HIV?
a. Yes
b. No

PART III
QUESTIONS ON MTCT

11. Can an infected mother transmit HIV virus to her child?
a. Yes
b. No
c. I don't know

If no skip question 12

12. When does an infected mother transmit the infection to her child?
a. During pregnancy
b. Through vaginal delivery
c. Through breastfeeding

13. How can mother to child transmission of HIV be prevented?

a. Antiretroviral therapy during pregnancy.
b. Delivery by caesarean section.
c. Giving antiretroviral drugs to the newborn.

14. Is there medication given to the mother during pregnancy to reduce MTCT?
a. Yes
b. No
c. I don't remember

15. When does a pregnant woman start ARV prophylaxis?
a. First trimester.
b. Second trimester.
c. Third trimester.
e. I don't remember.

PART IV
QUESTIONS ON INFANT FEEDING

16. Do you know the main alternatives of infant feeding? (Mention)

a. Breastfeeding for as long as the mother wishes
b. Breastfeeding for 6months exclusively
c. Infant formula /Cows milk exclusively

17. What conditions/risk factors in a mother during breastfeeding increases the risk of MTCT?

a. Low CD4+ counts
b. Cracked or bleeding nipples

c. Mastitis

d .I don’t remember

e .I don’t know

18. What conditions in an infant increases the risk of acquiring HIV infection during Breastfeeding.

a. Oral ulcers or sores in the infant’s mouth

b. Mixed feeding.

c. I don’t remember

d. I don’t know

PART V

QUESTIONS ON ATTITUDE TOWARDS PMTCT

19. Its important that every pregnant woman gets tested for HIV.

1. Strongly agree

2. Agree

3. No opinion

4. Disagree

5 Strongly disagree

.

20. If one is infected with HIV then she should not get pregnant again

1 Strongly agree

2. Agree

3. No opinion

4. Disagree

5 Strongly disagree

21. Using protective gears (condoms) during pregnancy and breastfeeding reduces MTCT?

1 Strongly agree
2. Agree
3. No opinion
4. Disagree
5 Strongly disagree

22 .Some women opt to breastfeed despite their HIV status due to stigma.
1. Strongly agree
2. Agree
3. No opinion
4. Disagree
5. Strongly disagree

23. Some women opt to breastfeed despite their HIV status due to poverty.
1. Strongly agree
2. Agree
3. No opinion
4. Disagree
5. Strongly disagree

24. Some women opt to breastfeed despite their HIV status due to fear of disclosure.
1. Strongly agree
2. Agree
3. No opinion
4. Disagree
5. Strongly disagree

25. My family will support my choice of feeding the baby

1. Strongly agree
2. Agree
3. No opinion
4. Disagree
5. Strongly disagree

26. Do you support the strategies for PMTCT?

1. Agree
2. Strongly agree
3. No opinion
4. Disagree
5. Strongly disagree

APPENDIX 2

Nursing Science Department
University of Fort Hare
30/07/2013

Ethics Committee

RE: **REQUEST TO CONDUCT A RESEARCH STUDY**

I, Florence Nozakhe Skoti, a post graduate MCur student at the University of Fort Hare, hereby request permission from your office to allow me to conduct a research study in your institution.

The title of the research project is: Attitudes, knowledge and behaviour of HIV positive pregnant women attending ANC in BCMM East London towards PMTCT.

The objectives of the study are as follows:

- To assess the knowledge that the pregnant women have towards the prevention of mother to-child transmission which includes HIV testing, antiretroviral prophylaxis during pregnancy, labour, and post natal and feeding options.

- To assess the knowledge, attitudes and behaviour of pregnant women about safe sex practices during pregnancy and postnatal.

Hoping that my request will be highly considered
Yours faithfully
F.N Skoti Matroshe MCur Student University of Fort Hare

APPENDIX 3

University of Fort Hare

Department of Science

30/07/2013

Director

Epidemiological Research & surveillance Management

Department of Health

Bisho

RE: **REQUEST TO CONDUCT A RESEARCH STUDY**

I, Florence Nozakhe Skoti, a post graduate MCur student at the University of Fort Hare, hereby request permission from your office to allow me to conduct a research study in your institution.

The title of the research project is: Attitudes, knowledge and behaviour of HIVpositive pregnant women attending ANC in BCMM East London towards PMTCT.

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- To assess the knowledge, attitudes and behaviour of pregnant women about safe sex practices during pregnancy and postnatal.

Hoping that my request will be highly considered
Yours faithfully
F.N Skoti Matroshe MCur Student University of Fort Hare

APPENDIX 4

Department of Nursing Science

University of Fort Hare

30/07/2013

Sub-District Manager

Buffalo City Sub-District

Department of Health

East London

RE: **REQUEST TO CONDUCT A RESEARCH STUDY**

I, Florence Nozakhe Skoti / Matroshe, a post graduate MCur student at the University of Fort Hare, hereby request permission from your office to allow me to conduct a research study in some of your clinics.

The title of the research project is: Attitudes, knowledge and behaviour of HIV positive pregnant women attending ANC in BCMM clinics East London towards PMTCT.

The objectives of the study are as follows:

- To assess the knowledge that the pregnant women have towards the prevention of mother to-child transmission which includes HIV testing, antiretroviral prophylaxis during pregnancy, labour, and post natal and feeding options.

- To assess the knowledge, attitudes and behaviour of pregnant women about safe sex practices during pregnancy and postnatal.

Hoping that my request will be highly considered

Yours faithfully

F.N Skoti Matroshe MCur Student University of Fort Hare

Cell: 082 265 27

APPENDIX 5: INFORMED CONSENT FORM

No 9 Acacia Drive

Beacon Bay

East London

Request for your consent to participate in a research study

Dear participant

My name is Nozakhe Skoti Matroshe and I am interested in your opinions about your attitudes, knowledge and practices towards prevention of mother to child transmission of HIV.

Purpose of the study

The purpose of the study is to determine the attitudes, knowledge and practices of HIV positive pregnant women towards prevention of mother to child transmission of HIV in Buffalo City Metropolitan Clinics, East London.

Procedure

You will be interviewed and asked to answer questions in a form. An answer will be written in answering questionnaire form. Explanation will be needed when there is a suggestion to do so.

Duration

It will take 15 minutes to answer the questions.

Logistical detail

You will be interviewed as an individual. The researcher will take 15 minutes of your time. The interview will be conducted in a separate consulting room. You don't need to come back again.

Electronic recording

No tape recording will be used.

Potential risks and discomfort

You will not experience any discomfort and the research has no risks to your health or image.

Study activities that exceed the definition of minimal risks

None

Potential benefits to subjects and/or society

The participants will not benefit directly from participating.

Payment for participation

No payment will be done for participating.

Confidentiality

Your participation will be confidential and will only be disclosed with your approval or required by law. Your name and the data will be kept completely separated. The data will be locked in a safe cupboard and only the researcher has access to it.

Participation and withdrawal from the study

You may refuse to answer any question that you choose not to answer. There will be no penalties from withdrawal from the study.

Contact details: If you have any question relating to this study, you should contact, Nozakhe Skoti Matroshe 082 265 2794

Consent form

I have read the content of this form, understand, and agree to participate in this study

I understand that I am free to refuse to answer any questions and that I can end my participation at any time without this affecting my care now or in future.

Participant's signature……. Date……

Witness' signature.....Date.....

I have explained this study to the above participant and have sought his/her understanding for informed consent.

Researcher's signature……Date…….