

**FACTORS CONTRIBUTING TO NON ADHERENCE AMONG PREGNANT WOMEN
ON ANTIRETROVIRAL TREATMENT AT AMATHOLE DISTRICT, EASTERN CAPE.**

BY

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Declaration

I declare that **factors contributing to non-adherence among pregnant women on ART in Amathole District, Eastern Cape** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before for any other degree at any other institution. I further cede copyright of the research to the University of Fort Hare.

Signature: Kolelwa Felicia Dekeda

Date :

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Abstract

During the beginning of the HIV epidemic in 1981 25 million people have died. The introduction of ART therefore has promising developments to reduce mortality rates and new infections. Nevertheless there is still a challenge with adherence to ART worldwide and in South Africa. The purpose of the study was to determine the factors contributing to non-adherence to ART among HIV positive pregnant women.

The study involved a non- probability sample of 70 HIV pregnant women on ART attending antenatal care clinics at the tertiary hospital and two community health centres, in Buffalo City, Amathole District, Eastern Cape. A coded questionnaire was used as an instrument for data collection. Ethical procedure was followed and a consent form was signed by each participant. Data was collected for a period of two months

The demographic data reveals that the majority of the participants were knowledgeable about ART and employed. That is evident in the adherence to ART in all age groups except age 40 and above. The majority of HIV positive pregnant women on ART who participated in the study were single 50% (n=35) which suggests that they may lack emotional support from partners and may have difficulty in disclosing their status.

Level of adherence revealed that 27% (n=19) of participants missed ART because of forgetfulness, and 16% (n=12) and others were feeling healthy due to frequent follow ups and complying with the ART. Poor follow up, too sick, side effects pill burden, fear of stigma, lack of finances and taking alcohol hinders the proper management of HIV positive pregnant women and is risky to the unborn baby.

HIV positive pregnant women on ART exhibited a good knowledge and use of ART. This is encouraging and should be sustained by continuous community awareness campaigns to empower the communities about HIV/AIDS, PMTCT programme and ART and extensive training of health care providers.

Keywords

Adherence

Antiretroviral

HIV/AIDS

Pregnant women

Prevention of Mother to Child infection

Non adherence

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1.1 Introduction and background

During the beginning of the HIV epidemic in 1981, 25 million people have died of HIV and AIDS globally (UNAIDS, 2011:10). Promising developments and efforts to address the epidemic have been implemented in recent years. Increased access to effective ART and prevention were also introduced in this period. (WHO, 2010:2).The WHO (2010:2) further states that in 2007, new data showed that global HIV-prevalence and the number of new infections had been reduced as a result of the impact of HIV. Worldwide an estimated 39.5 million people were living with HIV, and in low and middle income countries 3 million people were receiving ART by the end of 2007 (WHO, 2010:2).The above information demonstrates the ART executed to fight this pandemic, but there are still challenges faced by the HIV positive clients on ART worldwide, and in South Africa.

Sub-Saharan Africa remained the most affected region in the global AIDS epidemic, (WHO, 2010:2). More than two thirds (68%) of all people who are HIV-positive live in Sub-Saharan Africa where more than three quarters (76%) of all AIDS deaths in 2007 occurred (WHO, 2010:3). It is estimated that 1.7 million people were newly infected with HIV in 2007, bringing to 22.5 million the total number of people living with the virus in Sub-Saharan Africa (UNAIDS, 2011:2). About 6.2 million people in Sub-Saharan Africa were reported to be benefiting from ART between 2010 and 2011, (UNAIDS, 2012:1). South Africa has been ravaged by the HIV and AIDS pandemic and it is estimated that 5.7 million people were living with HIV and AIDS in 2009, more than any other country in the world (Gessen, 2009:5). Sub-Saharan Africa is the most affected and destroyed area by this pandemic, but it is also escalating in the developing countries.

HIV/AIDS in South Africa is a prominent health concern. In addition to that, South Africa is believed to have more people with HIV/AIDS than any other country in the world according to statistics (Abdool & Baxter, 2010:42). The 2007 UNAIDS report estimated that 5,700,000 South Africans had HIV/ AIDS, or just under 12% of South Africa's population of 48 million (UNAIDS,2008:13). HIV prevalence in Eastern Cape is at least at 15%, taking 5th place in South Africa's nine provinces. Eastern Cape Province is the

poorest, most rural province and has a high unemployment rate. This may hinder adherence by pregnant women who are on ART. With this added burden of the HIV pandemic there is a need for more intervention and monitoring of those people living with HIV.

The introduction of ART has dramatically changed the lives of people living with HIV. A combination of highly active ART, using three or more drugs in HIV infected patients lead to a substantial reduction of plasma RNA levels, decreased opportunistic infections, and lower mortality rates (Hammer, 2006:1082).The WHO current guidelines recommend that all HIV infected individuals globally, with a CD4 cell count of less than 350, should be started on ART to reduce the risk of disease progression (WHO, 2013:5). Mother to child transmission (MTCT) is one of the modes of HIV infection (UNAIDS, 2010:10); hence the interventions of the PMTCT programme are used to reduce infant mortality (for example, PMTCT intervention is about reducing infection from the mother to the unborn baby).

HIV infection transmitted from an HIV positive mother to her child during pregnancy, labour/delivery and post- partum/breastfeeding, is known as mother to child transmission (MTCT), (WHO, 2010:2). An estimated 430 000 children were newly infected with HIV in 2008 - over 90% of them through mother to child transmission (PMTCT Strategic Vision, 2010-2015:6).Without intervention the risk of MTCT can range from 20%-45%. However, with specific interventions, such as early booking of pregnant women, leads to early initiation of ART and the risk of MTCT can be reduced by 2% and 5% (Rutenberg, 2006:9). This, therefore, is the best intervention for reducing maternal and infant mortalities, which will be closer to the MDG goals 4 and 5 strategy of the government.

The prevention of mother to child transmission (PMTCT) is a highly effective programme and has a high potential to improve both maternal and children's health (WHO: 2010:2). The rate of mother to child transmission of HIV infection, as well as the survival of people diagnosed with HIV, has dramatically improved with access to (ART) (Mainheimer, 2006:12). HIV positive pregnant women eligible for ART should be put

on ART and all HIV exposed infants given an appropriate ART prophylaxis (Saving Mother Saving Babies, 2008:8). According to the 2009 UNAIDS report 45% of the estimated HIV infected pregnant women in low to middle income countries received ART drugs to prevent HIV transmission to their children, and up to 10% in 2004 and 35% in 2007 (UNAIDS, 2010:8). In the Eastern and Southern nations ART coverage huddled to 58% in 2008 from 46% in 2007 due to increased national and international support. In Sub Saharan Africa 80% coverage was achieved, with significant reductions in new infant infections. In 2003, the South African government agreed to provide free ART, and since then South Africa has the largest ART rolled out in the world. The total coverage achieved was 90% in promoting PMTCT and reducing maternal and child health (National Department of Health, 2010:3). In 2001, the United Nations General Assembly set a target 80% coverage and 90% coverage was achieved, although the challenge is in the adherence.

A key determinant of successful ART is drug adherence, (Cauldbeck, 2009:2). The WHO defines adherence as a term often used interchangeably, with compliance being the extent to which a person's behaviour taking medication corresponds to the agreed recommendations from the health provider (Shaahu, 2008:26). Adherence is also described as a major public health problem in resource limited situations, where the choice of medications is already restricted due to high costs and limited availability (Kozal, 2009: 69). Furthermore, adherence to ART poses unique challenges to HIV infected pregnant women, and is central to the successful prevention of mother to child transmission of the HIV (PMTCT) programme by ensuring viral suppression (Cauldbeck, 2009:2). Poor monitoring of clients on ART drug therapy will destroy the entire good attempt initiated by the PMTCT programme.

Poor adherence to ART drugs during pregnancy can lead to sub optimal viral suppression, development of viral resistance, higher risk of MTCT and mother to child transmission of resistance strains (Mills, 2006:2). Interrupting medication permits the virus to resume rapid replication of HIV and allows resistant mutant strains to be generated, which are no longer responsive to available ART drugs, posing a public

health risk. As the result of studies conducted to examine the ART adherence in Brazil an adherence prevalence rate of 69% among the patients studied, was reported. (Nemes, 2004:1). According to Cauldbeck, (2009:3), incomplete medication adherence among patients living in poverty has been an important consideration in expanding the access to ART, especially in Sub-Saharan Africa. The author further reported that a study conducted in Bangalore, India, in 2008 showed that medication adherence was 60.4%, which was lower than expected, as other studies conducted in developing countries have shown a regular medication adherence of 74%. All these studies prove beyond doubt that there is a problem with adherence.

Moreover, a study conducted among HIV positive pregnant women attending PMTCT Clinic at Nnamdi Azikiwe University Teaching Hospital Nnewi in Nigeria, showed a high prevalence of non-adherence to ART drugs among the pregnant HIV positive mothers, which was attributed to forgetfulness and patients feeling in good health, (Igwegbe, 2010:241).

In 2009, UNAIDS called for virtual elimination of mother to child transmission of HIV by 2015, (Mahy, Stoves, & Kiragu, 2010:14), stressing that adherence is the main, if not the most important, factor to ART failure and to the development of resistance.

A study conducted in Northern KwaZulu Natal demonstrated a couple of reasons leading to non-adherence, which were the intra personal reasons and related issues around misunderstandings and misconceptions of ART (Mephan, Zondi, Mkhwanazi, Gallard & Newell, 2011: 2). The above research was conducted based on challenges faced by HIV positive Zulu women taking ART for PMTCT. Mephan et al (2011:2) further reported that the disturbance in taking ART was the result of interrupted routines where women changed locations, or sought to explore traditional kinds of ART. There is an urgent need to improve adherence to avoid ART sensitivity, which is a key to ART failure.

The need for a high level adherence to ART has remained a major hurdle to achieving maximum benefit from its use in pregnancy. According to Ekama et al, (2012:3) the desired outcome is to protect the unborn child, which was the greatest motivation for

good adherence. But fear of being identified as HIV positive was the most common reason for non-adherence (Robbins, 2007:33). The author furthermore states that marital status, disclosure of status, good knowledge of ART and having an ART supporter, were found to be significantly associated with good adherence.

According to Golda and Agyii-Baffor (2013:2), more than 90% of the HIV positive women had inadequate knowledge about ARTs and PMTCT, and these women are likely to default ART. Golda et al (2013:2) further maintained that the educational background of HIV positive women did not have a significant influence on their knowledge of ARTs and PMTCT.

Furthermore, poor compliance with prescribed drugs may have potentially negative consequences, as patients may not achieve their therapeutic goals. All the problems stipulated by the literature reinforce the need to investigate factors affecting the adherence of HIV pregnant women in the Eastern Cape.

1.2 Problem statement

Poor adherence to ART during pregnancy concerns the researcher. Through researchers, and day to day consultation in antenatal clinics, there are numerous clients that do not adhere to ART.

South Africa has the largest ART programme in the world, with world coverage of 54% of people on ART (UNAIDS, 2010:15). In addition to this, the South African government continues to revise ART policies to treat more people, especially pregnant women (Montaner, 2011:208). Researchers, however, have become increasingly concerned about adherence to ART (Kagee, 2008:414). Non-adherence to ART hinders the proper management of the client, is costly to the government, and success becomes precarious (Cauldbeck, 2009:2).

ART is a lifelong and permanent commitment by people who are HIV positive, and also have the obligation and responsibility to adhere to ART medications. Based on the new PMTCT guidelines 2013, all HIV positive pregnant women, regardless of CD4 count, will commence lifelong ART on the first visit diagnosed as HIV positive (National Department of Health in South Africa: 2013:2). When reviewing past literature on

adherence it became evident that most of the literature on ART was based on conditions in overseas countries. The only research study done on adherence was in Nelson Mandela Metropolitan University, Port Elizabeth, Eastern Cape, by Kgomotso Quentine Masokoane 2009 on patients who are on ART generally.

1.3 Purpose of the study

The purpose of the study is to identify and describe factors that influence non-adherence to ARTs among HIV/positive pregnant women accessing PMTCT in the East London Tertiary hospital, and two Community Health Centres, Buffalo City (and?) Metropolitan, during 2013.

1.4 Objectives of the study

The objectives of the study are to:

- Describe factors contributing to non-adherence of ART among HIV positive pregnant women
- Determine knowledge of the HIV positive pregnant women and the use of ART
- To recommend strategies that will enhance adherence on ART

1.5 Research questions

- What are the factors leading to non-adherence of ART among pregnant women?
- What is the level of knowledge and use of ART?

1.6 Significance of study

The findings generated from this study might make several contributions to the following:

1. Knowledge and understanding of non –adherence of the client herself.
2. Contact with the family of the HIV pregnant woman, because they will be informed about the benefits and disadvantages of non- adherence.
3. The community at large will also be informed, via workshops, reports on health magazines and campaigns.
4. Findings may assist the government in its efforts to develop new policies related to PMTCT.
5. Intervention programmers to deal with problems associated with non-adherence.
6. It will also serve as a resource for research into bigger research studies, in order to be generalized

1.7 Definition of terms

Adherence

According to WHO, (2010:3) adherence is a term used interchangeably with the compliance to which a person's behaviour in taking medication corresponds with agreed recommendations from the health worker. In this study adherence refers to strictly following the prescribed ART medication regimen for HIV pregnant women.

Antiretroviral therapy (ART)

ART refers to drugs designed to suppress the progression of HIV/AIDS, and consists of dual and triple combinations (PMTCT strategic vision: 2012:5). In this study the term ART will be referring to ART given to HIV positive pregnant women.

Mother to child transmission (MTCT)

MTCT is known as mother to child transmission from an HIV infected mother to the child (National Department of Health: 2010:2). In this study this term will be used if the mother has not complied and has infected the unborn baby.

PMTCT

PMTCT is known as the prevention of mother to child transmission That is, prevention of HIV infection from an HIV infected mother to the child (PMTCT strategic vision: 2012:1). In this study PMTCT refers to prevention of mother to child HIV infection

1.8. Theoretical framework of the study:

Theoretical framework refers to a structure of concepts and theories pulled collectively as a map for the study (LoBiondo-Wood & Harber,2010:57).The rationale for the map of the study provides rationale for the development of research questions or hypothesis (LoBiondo-Wood & Harber, 2010:57).

1.8.1. Pender's Health Promotion Model

The Health Promotion Model was designed by Nola J. Pender (1996) to be a "complementary counterpart to models of health protection." It defines health as a positive dynamic state, rather than simply the absence of disease. Health promotion is directed at increasing patients' levels of well-being. The health promotion model describes the multidimensional nature of persons as they interact within their environment, to pursue health. In this study a health promotion model is about increasing knowledge on adherence to ART and preventing complications of non – adherence.

Pender's model focuses on three areas: Individual characteristics, experiences in behaviour-specific cognitions and effects, and behavioural outcomes. In this research the concepts of the theory were adapted. The theory notes that each person has unique personal characteristics and experiences that affect subsequent actions. In this study the researcher will modify the behaviour of HIV positive pregnant women on ART, and

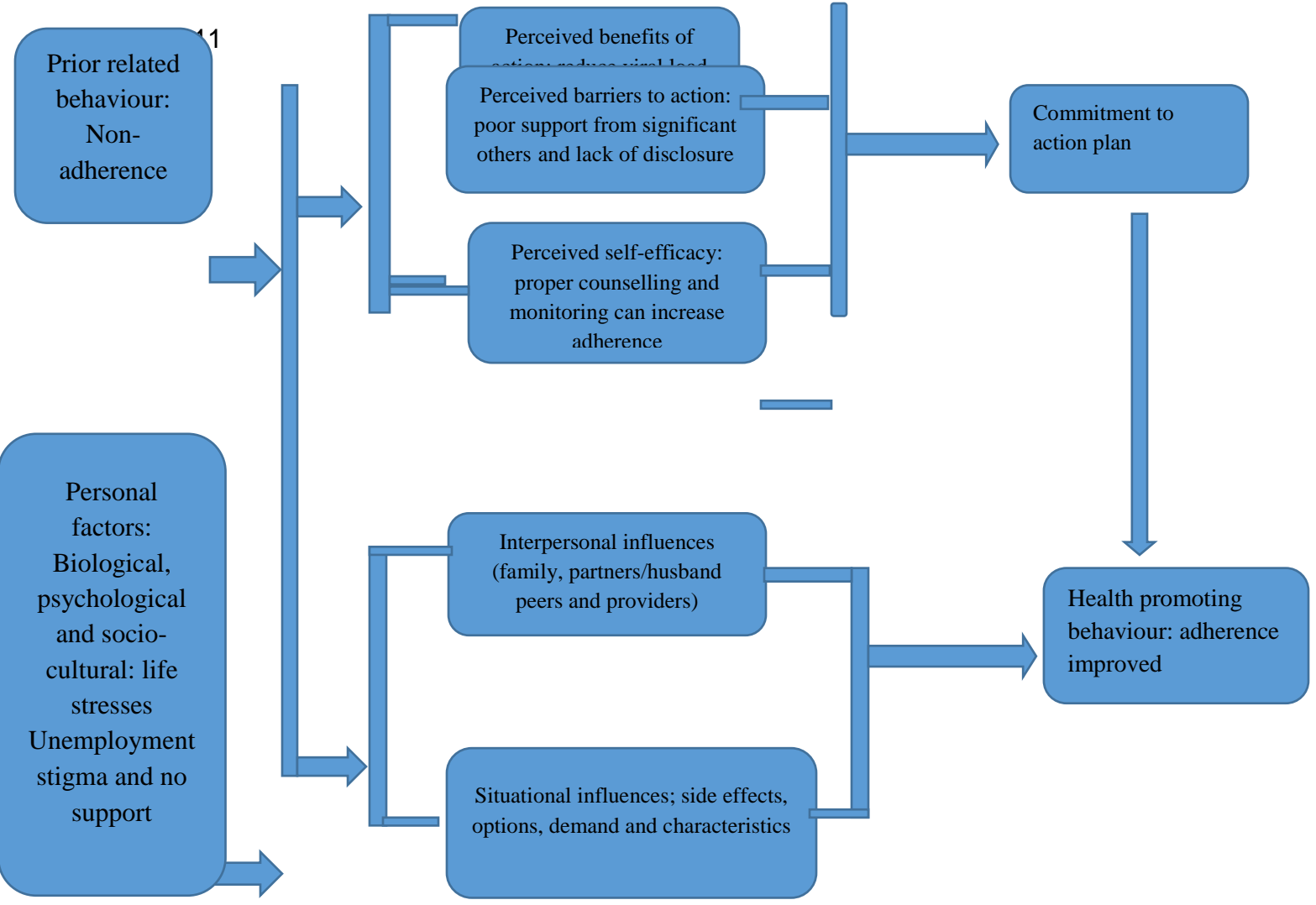
their experiences through health education on the benefits of adhering to ART. Health promoting behaviour is the desired behavioural outcome. In this study the desired outcome would be a change in lifestyle (adherence to treatment). This behaviour should result in improved health (decreased chances of developing ART resistance, or delayed progression to terminal illness).

Individual Characteristics

Behavioural

And experiences

outcome



Health promotion model adopted form

The Health Promotion Model has been an attempt to explain health behaviour that influences the prevention and promotion of personal health. HPM assumes that good health is a goal for most persons, and the perception of benefits, barriers and self-efficacy impact the likelihood of a person taking action that is health related, by adhering to prescribed ART. Therefore, this study will be guided by the HPM in an effort to demonstrate the relationship between adherence and health promotion of HIV positive pregnant women.

Conclusion

This chapter discusses the development of the model of health promotion that enhances self-care of HIV positive pregnant women, to support them as they strive to attain optimal wellness and adherence to ART Health promotion which facilitates the practice of self-care.

Chapter 2

Literature review

2.1 Introduction

The main aim of this chapter is to conduct a critical analytical appraisal of the recent work on the topic, by determining what is already known about the topic and, as a researcher, to obtain a comprehensive picture of the state of this knowledge (Polit & Beck, 2008:757). The literature review covered the key concepts and available information relating to the researcher's understanding of the topic. The scope of the literature reviewed was broad enough to allow the researchers to become familiar with the research problem and to include the most recent relevant sources. Burns and Grove (2009:90), on the other hand, suggest that the review of literature in quantitative research directs the development and implementation of the study. The phenomenon under study concerns the factors affecting non-adherence, among pregnant women, to the PMTCT programme.

Prevention of mother to child transmission (PMTCT) of HIV has been at the forefront of the global HIV prevention activities since 1998 (PMTCT Strategic Vision, 2010-2015:11). According to the latest data, significant progress has been made in delivering PMTCT services in low and middle income countries. However, much work remains to be done (PMTCT strategic vision, 2010-2015:11). Irrespective of the intervention strategies implemented, adherence remains the challenge to sustain the goals for MDG 4 and to reducing the pandemic. The PMTCT programme is the best for women who are HIV positive, because the multi-disciplinary team undertakes research daily to eradicate the epidemic.

HIV/AIDS in pregnancy seems to challenge every aspect of a woman's existence, and this can lead to distress. In this study, the researcher describes the extent to which HIV/AIDS has affected women in general, specifically focusing on prevention of mother

to child transmission (PMTCT), ART adherence, and factors leading to non-adherence of pregnant mothers to ART.

2.2 General overview of HIV prevalence

Van Dyk, (2008:7) reported that there are an estimated 39; 5 million people worldwide living with HIV in 2006, almost 45% being women. Most of these people resided in Sub Saharan Africa (68%) and South and East Asia (20%) with less than 3% in North America and less than 2% in Western Europe. An estimated 16, 000 persons are infected each day by the HIV virus, of whom more than 40% are women and more than 50% are between 15 and 24 years of age (UNAIDS, 2006:16). This indicates that women, especially in the age group 15-24, need more educational attention than any other age group. In the overview of the global epidemic the UNAIDS (2006:8) stated that the HIV incidence rate had peaked in the late 1990s, but had been stabilized worldwide due to prevention programmes and changes in behaviour. Southern Africa remains the global epicenter of the epidemic. The UNAIDS declared, in 2006, that South Africa's AIDS epidemic is one of the worst in the world, and showed no evidence of declining (UNAIDS, 2006:17). The literature above revealed that there is still a problem with escalating numbers, of the prevalence of HIV positive mothers. In this study the researcher is interested in the factors contributing to non-adherence among pregnant mothers.

2.3 Impact of HIV in South Africa

The situation in South Africa is a cause for great concern. The UNAIDS declared in 2006 that South Africa's HIV epidemic was one of the worst in the world, and showed no evidence of a decline (UNAIDS, 2006:17). The estimated number of South Africans who died of HIV related causes was 310,000, reflecting the huge number of lives the country has lost to HIV over the last three decades (UNAIDS, 2006:32). However, the HIV prevalence varies from province to province, for example, in KwaZulu- Natal (15, 8%), Mpumalanga (15, 4%), Northern Cape (5, 9%) and Western Cape (3, 8%) being

the least affected (National Department of Health, S.A. 2010:33). Marking a change in HIV in South African history the South African Government launched a major HIV counselling and testing campaign (HCT) in 2010. (South African National strategic plan of 2007-2011:6). The author further reported that, since its implementation, the HCT Campaign has had a notable impact on the availability and uptake of HIV testing and ART. In this study, it means pregnant women who tested HIV positive will soon be initiated into ART, and their adherence will need to be monitored.

2.4 General overview of ART

ARTs are drugs which can be taken to fight HIV in a person's body (Moatti, 2004:56). Van Dyk, (2008:95) supports the fact that ARTs do not cure HIV, but they work to keep the level of HIV low in the bodies, and help keep the immune system stronger and capable of fighting diseases. In McAllister (2006:45) it is reported that since 1996, an overwhelming amount of evidence from clinical trials has been published, validating the use of ART for HIV infection. This, therefore indicates the importance of taking treatment in time to prevent infection of the unborn baby.

The main purpose of ART is to maintain the immune system, preserve the quality of life and to totally suppress the viral load (Tadio & Davey, 2006:18). The ART involves the ingestion of many pills once or twice daily. This enormous pill burden is associated with non-adherence in HIV management and PMTCT programmes. Furthermore, ART has some side effects that may be temporary, such as nausea, vomiting, fatigue or long-lasting conditions such as peripheral neuropathy, lipo-atrophy and metabolic dysfunction. These side effects have been shown to be contributory to non-adherence to ART. So the readiness of clients to start ART is therefore of the utmost importance (Matsui, 2011: 1). Moreover, continuous counselling and monitoring of HIV positive pregnant women is imperative, due to the challenges pregnant women face during pregnancy

2.4.1 Guidelines for initiating ART

The WHO developed standard guidelines to be followed worldwide when initiating ART (WHO, 2010:6). The guidelines could be revised whenever the need arose, and according to the country's medical protocol or regulations. The new revised guidelines state that every pregnant woman who tested positive to HIV /AIDS, regardless of the CD4 count, can be started on ART (WHO 2013:13). ART has restored many critically ill positive individuals to a level of wellness that could not have been predicted. However, many HIV positive individuals are psychologically and socially stressed, or have other medical problems, and these challenges could possibly affect clients' adherence to ART(Olowookere, 2008:368).This study is intent on identify factors that contribute to non- adherence, after being initiated into ART, and emphasizing the benefits of adherence.

2.4.2 Overview of prevention of mother to child transmission of HIV.

HIV infection transmitted from an HIV infected mother to her child during pregnancy, labour, delivery or breastfeeding, is known as mother to child transmission (MTCT) (PMTCT strategic vision, 2010-2015:1). The PMTCT is a highly effective intervention and has a huge potential to improve both maternal and child health (PMTCT strategic vision, 2010-2015:1). The government is improving the care given to HIV pregnant women by coming up with new protocols for treating HIV in pregnant women, in order to reduce maternal and infant mortalities.

The PMTCT guidelines have been revised several times since 2000, in response to new evidence, and the latest recommendations are to provide lifelong ART for all pregnant mothers, regardless of CD4 cells or advanced clinical stage. ART reduces the risk of MTCT and ensures safe infant feeding strategies in pregnant women with CD4 cells in excess of 350 cells, who opted for exclusive breastfeeding, and who will continue with

the ART until one week after cessation of breastfeeding, and others to continue as per guidelines (WHO,2013:16). This indicates the importance of emphasizing adherence to ART among pregnant women.

The coverage of ART increased from 46% in 2007 to 58% in 2008, due to increased national commitment and focused international support (WHO, 2010: 7) which lowered the highest rates of infection in Eastern and Southern Africa. Several countries in sub-Saharan Africa, including Botswana, Namibia and Swaziland, have now achieved the United Nations General Assembly special session's (UNGASS) goal of 80% coverage with significant reductions in infant infections. Countries with high HIV prevalence, including S.A, Kenya and Zambia have improved progress towards the goal of increased PMTCT (PMTCT strategic vision 2010-2015:40).This indicates that, regardless of achieving 90% of coverage in South Africa, which is above the coverage rate of 80% on PMCT, there is still the challenge of non- adherence among HIV positive pregnant women.

2.5 Overview of PMTCT in South Africa

At the 5th South African AIDS conference held in Durban, researchers in the conference showed new verification that the country is winning the fight against the HIV/AIDS epidemic (Medical Research Council, 2011:6). According to the national survey results, the mother to child HIV transmission (MTCT) rate for HIV is 3,5 %, and HIV transmission therefore needs more intensified efforts (Medical Research Council, 2011:6). This emphasizes the importance of tracking MTCT rating until 18 months, to measure the effectiveness of a complete PMTCT programme (Goga, 2011:46). In this study the researcher intention is to investigate factors that contribute to non-adherence to ART.

2.6 Adherence to ART

Adherence is defined as the achievement of quality in adhering to something, and in the situation of ART or medications adherence, it refers to a collaborative process between the patient and health care provider (Igwegbe, 2010:239). In this study the HIV positive pregnant woman plays a more active role in the ART and makes a commitment to follow the prescribed therapy as well as possible.

2.6.1 Benefits of Adherence

Adherence to ART improves the virological, immunological and clinical outcomes of an HIV positive pregnant woman, and thus improves the life expectancy of people with HIV (Palella, 2008:854). Adherence to ART is therefore pivotal in reducing MTCT and preventing the emergence of drug resistant strains which consequently reduce the incidence of hospitalization and mortality (Paterson, 2010:26). Therefore the importance of adhering to ART among HIV positive pregnant women, and in preventing transmission of HIV to unborn babies, is crucial.

2.6.2 Non-adherence

Non-adherence is most simply defined as the number of doses not taken, or incorrectly taken, that jeopardize the patient's therapeutic outcome (Nichols-English & Poirier, 2000:40).

A study conducted in Ibadan, Nigeria (Olowookere, 2008:37) to determine the level of non-adherence to highly active ART, and to explore the association of factors militating against both adherence and non-adherence, showed that non adherence is a problem, and the feeling of being healthy. Forgetfulness and unwillingness to disclose HIV status were significant barriers to adherence. In this study non-adherence is indicated as a unique challenge to HIV positive pregnant women on ART.

2.6.3 Disadvantages of non-adherence

Non-adherence places a huge burden on the economy, in resource- limited situations where the choice of medications is already restricted, due to high costs and limited availability (Kozal, 2009:60). Non-adherence to ART leads to the exposure of the virus, which in turn leads to ongoing viral replication and the development of resistance to ART and increased vertical transmission (Yerly, 2007:223). This therefore indicates the significance of identifying factors that contribute to non-adherence to ART.

2.7 Factors associated with non-adherence on ART

ART adherence among pregnant women with HIV, in both high and low income countries, especially after giving birth, is significantly below what is recommended for viral suppression and prevention of drug resistance (Nachega, 2011:169). Therefore the study identifies and describes factors contributing to non- adherence on ART.

According to Kounza (2010:10) adherence is critical for virology and clinical success, and remains of concern to both high and low income countries. The author further states that poor adherence can lead to ART failure and increased drug resistance. Poor adherence amongst pregnant women is associated with morning sickness, nausea and vomiting, which commonly affects over 70% of pregnant women in early pregnancy (Igwegbe,2010;239). Proper evaluation of the client's beliefs and attitudes are central to effective counselling and to improving the level of adherence to ART (White, 2006:415). Various studies on drug adherence have reported that forgetting to take ART, can result in side effects and toxicities which are major reasons for non-adherence (Olowokere 2008;371).

The author further states that the feeling of being healthy, and unwillingness to disclose HIV status, along with a fear of being identified as HIV positive, were the most common reasons for non-adherence. In this study the researcher has attempted to identify some factors that contribute to non- adherence of HIV positive pregnant women.

2.7.1 Finance

A lack of finances has a negative impact on adherence. Patients with a higher income have less difficulty with adherence to ART drugs. Yet, a study conducted in Bangalore, India (2009) surprisingly showed that even those with low incomes were 100% adherent. This was unexpected, as patients in India must pay for their medication (Cauldbeck, 2009:6). The author further states that almost all the participants in the study discussed the costs of ART as a barrier, with many reporting drug holidays, turning to friends and family for support or taking drastic measures (i.e. selling family jewels or property) for financial assistance.

2.7.2 Socio – demographic factors

To address HIV medical care, especially for pregnant women, necessitates obtaining a complete history and picture of an individual's current situation, such as family support (Matsui, 2012:4). Poor social relationships, living alone and lack of support, either from husband or family, contribute to non-adherence (Carlucci, 2008:618). The author maintains that social support, especially from family members, has a positive influence on medication- taking behaviour, as suggested in a study conducted at the Child Health Research Institute, London.

Results from a study that was conducted in Northern KwaZulu Natal, South Africa, demonstrate that pregnant women had significant challenges in taking ART (Mephan, 2011:2). The author further states that the reasons provided for sub-optimal adherence include therapy misconceptions/misunderstandings, ART use by relatives, domestic violence, poverty, and issues relating to disclosure and stigma. In addition to this, for women to take care of themselves is not the highest priority when they have the additional responsibility of caring for children and partners or other family members who are also affected by HIV/AIDS.

Food security emerged as one of the most significant barriers to ART adherence (Weiser, 2009:3). This was extracted from a study conducted in Uganda, 2010, which found that food insecurity and hunger, not only interfere with day to day adherence, but cause people to delay initiating, or discontinuing ART. Three mechanisms through which food insecurity impacted on ART adherence were found to be: increased hunger with ARTs, worsening of ART side effects in the absence of food, and competing demands between food costs and health care expenses which contribute to the inability to take ART doses while searching for food (Cantrell, 2008:190). It is indicated that food contributes to non-adherence among HIV positive pregnant women.

2.7.3 Alcohol and drug use

Alcohol and drug use are associated with poor medication adherence (Carlucci, 2008:618). Regarding ART challenges and strategies, it was found that some patients admitted taking alcohol, which could possibly result in poor adherence (Matsui, 2012:2). The author further states that hectic lifestyles, such as illicit drug use, can be a barrier to good adherence to ART. According to Kerr, (2005:1) sub optimal adherence to ART among drug injection users, is also of significant concern, as drug users were less than 95% adherent, and forgetfulness was the most frequently cited reason. The study aims to identify whether alcohol and drug use may have an impact on non-adherence.

2.7.4 Beliefs and knowledge

White (2006:411) found that belief and knowledge have an impact on the effectiveness of ART in illnesses, and are associated with medical adherence. However, people have many different health related beliefs and practices. The author further states that some people maintain that disease is caused by an agent that enters a person's body, and therefore can be removed only through supernatural powers. Such people usually reject modern medicine, and consequently might not adhere to ART (White, 2006:411). In this study the researcher attempts to determine whether increased knowledge about the disease, and the purposes of ART, can have a positive effect on adherence

According to a study conducted by Boateng (2013; 5), Kumasi Region, Ghana, it was found that the knowledge level of HIV positive women on ART and PMTCT are important factors in adherence to ART. It was further outlined that, despite the knowledge level on the transmission of HIV/ AIDS, some women also perceived it as transmitted through spiritual means. This indicates that, although educational interventions are being implemented, they had not effectively demystified perceptions about the origin of HIV/AIDS.

2.7.5 Disclosure

Olowookere, (2008:371) found that patients who were not willing to disclose their HIV status were independently more likely to have less than 95% adherence level. This is in line with the previous report that sero-status disclosure is very important in the efforts to limit the spread of HIV infection, including prevention of MTCT, and is therefore emphasized by WHO (UNAIDS, 2010:16). With disclosure there is increased social and psychological support for the infected partner. In addition to this, disclosure may lead to improved access to HIV prevention and ART programmes, as well as increased opportunities for reduction strategies, including the use of condoms among sexual partners (Igwegbe et al, 2010:243). According to Ekama (2011), disclosure, and having an ART supporter were associated with good adherence, and disclosure to a partner who in most cases is the husband, will not only provide support, but will act as an ART partner for the spouse (Ekama, 2011:4). This indicates that, despite efforts to encourage PMTCT, disclosure still plays a role in the non-adherence of HIV positive pregnant women to ART.

2.8. Measures to promote adherence

Efforts to improve compliance have been aimed at simplifying packaging and providing effective medication reminders (Ngoh, 2009:132). By improving patient education and simultaneously limiting the number of medications prescribed (Shrank, 2007:54) ART

has transformed the perception of HIV/AIDS to a manageable chronic illness, but non adherence seems to still be a challenge for HIV positive pregnant women on ART

2.9 Summary

Literature has covered topics, including HIV/AIDS and its effects globally, HIV, ART and an overview of PMTCT, as well as the impact of adherence to ART. Issues were reviewed concerning ART and non-adherence.

Non- adherence to ART is a complex multifaceted problem involving the patient, family, disease, physician and regimen factors. Various methods are available to assess adherence however, all have advantages and disadvantages.

Chapter Three

3.1 Research Methodology

Research methodology studies are for investigating ways of obtaining and organizing data, and conducting rigorous research, (Polit & Beck 2008:328). Chapter three provides an in-depth description of the research methodology used during this study. Incorporated is an argument of the research design, the research problem, the study population, the sampling procedure, data collection methods, data analysis and ethical considerations.

3.2 Research approach

Burns and Grove (2009:808) define the quantitative research approach as a formal, objective, systematic process to describe and to examine relationships, and cause and effect interactions among variables. Brink (2009:92) also describes research design as the set of logical steps taken by the researcher to answer the research question. It forms the 'blue print' of the study and determines the methodology used by the researcher to obtain sources of information. This study was quantitative, as it sought to explain the occurrence of particular phenomena (Burns & Grove, 2009:808). This approach seems relevant because this study is aimed at identifying factors leading to non-adherence to ART among pregnant women.

3.3 Research design

Brink, Van der Walt and Van Rensburg (2012:96) describe research design as the blueprint of the study, and determine the methodology used to obtain sources of information, such as participants, elements and unit analyses to collect and analyze the data and to interpret the results. The study is descriptive in nature. Descriptive studies describe what exists, determine the frequency with which something occurs, and categorize information (Burns & Grove, 2009:25). In this study, a quantitative, descriptive design was used, because it allows some understanding of the phenomenon (non-adherence), to measure objectively the variables involved, and to statistically

analyze and interpret the data. In descriptive design there is no treatment in which the researcher measures the variables. (Burns & Groove, 2011:256).

3.5 The study population

The study population is defined as particular types of individuals or elements, who are the focus of the research that meets the criteria in which the researcher is interested in studying (LoBiondo-Wood & Haber, 2010:222). The population of interest in this study was HIV positive pregnant women on a PTMCT programme, attending antenatal care at one tertiary hospital, and two health care centres in the Buffalo City Metropole, Amathole District, in 2013

3.5.1 Target Population

The target population is the whole group of pregnant women who meet the sampling criteria, as defined by (LoBiondo-Wood & Haber, 2010:222). The target population for this study refers to HIV positive pregnant women on ART, who attend the antenatal care clinic in the tertiary hospital in Buffalo City.

3.5.2 Accessible population

Polit and Beck (2008:512) define this population as the population to which the researcher has access, and actually studies, for example, HIV positive pregnant women on ART attending the antenatal care clinics in the tertiary hospital in Buffalo City, where at the time, data was being collected by the researcher. In this study the researcher's intent is to describe factors contributing to the non- adherence of HIV positive pregnant women.

3.6 Sampling procedure

The sampling procedure refers to the researcher's process of selecting the samples from the entire population, in order to obtain information regarding a phenomenon, in a way that represents the population who are of interest (Brink, Van der Walt & Van Rensburg, 2011:132). Burns and Grove (2011:343), define sampling as a process

involving the selection of a group of people, events, behaviours, or other elements with which to conduct a study. The sample for this study was derived from HIV positive pregnant women attending antenatal care at the clinic or community health centre. A non-probability sampling approach, and a convenient sample were used for clients visiting the clinic during the data collection period.

3.7 Sample frame

The sampling frame is a list of all the sampling elements in the target population. The sample from the study was drawn from this frame. A list of the entire number of pregnant women on the PMTCT register constituted the sampling frame, which forms the population. In this study, the sample frame of HIV positive pregnant women on the ART register in the antenatal clinics of the community health centres, and the hospital, were used.

3.8 Sample size

Sample size is the number of participants in a sample (Polit & Beck, 2010:317). The minimum estimated size for this study was 70. Roos (2006:3) advised that the skills of a statistician be employed to help with power calculations. The study aimed for a precision of +/-5% for a proportion of 50%, using 95% confidence interval.

3.9 Inclusion criteria

The inclusive and exclusive criteria are referred to as eligibility criteria, where researchers should use them as the basis for their decisions of whether a participant would or would not be classified as a member of the population in question (Polit & Beck, 2008:338). The study targeted HIV positive pregnant women currently on ART for at least three months, age 18 and above, who booked early from 12weeks gestational age including those pregnant who were already on ART. The majority of participants were Xhosa women, participating voluntarily, and attending antenatal PMTCT clinics at the selected health facilities.

3.10 Exclusion criteria

LoBiondo-Wood and Harber, (2010:222), define these criteria as those participants, individuals or objects that will lead a researcher to exclude them from the population. In this study, HIV positive pregnant women living outside the East London area were excluded. HIV positive pregnant women who met the selection criteria, but were above 3 months and cannot read or write were also excluded.

3.11 Study setting

A setting is the physical location and conditions in which data collection takes place in a study (Polit & Beck 2008:510, Burns and Grove 2009:35). The setting used in this study was a natural setting. Natural settings are controlled real life settings usually preferred for descriptive studies. A hospital and community health centre setting were chosen for research interest. The study was conducted in one public hospital and two community centres in East London, Buffalo City Metropolitan in the Amathole District Eastern Cape. The hospital is situated in an urban area of East London and the community health centre is situated few kilometres from East London in Gompo Township, Buffalo City Metropolitan, Amathole District.

3.12 Measurement instrument

A measurement instrument is a device used to examine a specific variable in the study (Burns & Grove, 2007:41). A questionnaire was used as a measurement instrument. Brink, Polit and Beck (2008:508) define a questionnaire as a method of gathering information from a respondent through administration of questions in a paper and pencil format. In this study the questionnaire was distributed by the researcher with the help of other midwives working in the antenatal clinic.

The questionnaire was divided into two sections, namely Section A and Section B. Section A consisted of demographic data of the participants. Section B concentrated on questions related to knowledge, adherence, socio economic factors, behaviour, food and nutrition safety, life style practices and challenges. Participants were given 30 to 60

minutes to answer all the questions in the questionnaire. The researcher collected all the questionnaires and locked them in the safe.

3.13 Validity and reliability

3.13.1 Validity

According to Brink et al (2012:165) validity seeks to ascertain whether an instrument accurately measures what is supposed to be measured, given the context in which it is applied. A pilot study was conducted to test the questionnaire for reliability and validity. Internal validity/truth was insured by checking that the participants accurately understood and agreed on the way it was interpreted. The researcher clarified the information with the participants to ensure that it was correctly understood. The questionnaire was given to experts to confirm face, content and criterion validity.

3.13.1.1 Face validity

Face validity merely means that the instrument appears to measure what it is supposed to measure (Brink et al, 2012:166). The researcher used this type of validity in regard to determining readability and clarity of the content.

3.13.1.2 Content validity

Content validity is a measurement of how well the instrument represents all the components of the variable to be measured (Brink et al, 2012:166). Content validity was used when developing the tool (questionnaire), and in this case the questionnaire was adapted from the Nyambura Wanjohi study done in Kenya. In this study content validity was used before the actual collection of the data.

3.13.2 Reliability

Reliability refers to the degree to which the instrument can be depended upon to yield consistent results if used repeatedly over a period of time on the same person, or if used by two researchers (Brink et al, 2012:269). In this study reliability was tested by the researcher using the questionnaire in the pretest, which showed its ability to give the same results when used repeatedly, thus determining its reliability.

3.14 Pilot study

A pilot study is a smaller version of a proposed study which is conducted to refine the instrument, or the process of data collection. (Burns et al: 2012:44) The pilot study was conducted under similar conditions to the actual study. The questionnaire was used in a smaller group of participants to check the validity and reliability of the questions. Only five participants were enrolled in the pilot study. The outcomes of the pilot study indicated that the tool was valid, but corrections of errors in the questionnaire were made. The participants of the pilot study were not included in the actual study.

3.15 Data collection

Data collection entails how one will implement one's study as a researcher, what procedures will be used to collect data, and to anticipate the costs and time (Burns & Grove, 2009:441). The data was collected at a Tertiary Hospital, and two Community Health Centres situated in the Buffalo City Metropole in Eastern Cape. The researcher was actively involved in collecting data. In this study, data was collected using a questionnaire adopted from another researcher in a study done in Kenya. The questionnaire used was in English and included demographic data, information on background knowledge and behaviour practices, and on the use of ART. Meaning those participants who cannot read or write were excluded, as indicated in the exclusion criteria. The data was collected in antenatal clinics from the specified institutions.

HIV positive pregnant women on ART were approached at the clinics during clinic hours while they were waiting to be attended to, and given an explanation of the brief overview by the researcher, the aims and objectives of the topic under study and how the data was collected and managed so as to ensure confidentiality. A separate quiet room was identified to ensure privacy and questionnaire was coded with alphabets to maintain confidentiality. Approximately three to five participants were required to answer questions in twenty minutes time for each participant responding to questions. Data was collected for four days per week as Friday is a day for emergencies and statistics in the clinics. Data was collected over two months. All participants were required to complete an informed consent form prior to participating in the study.

3.16 Ethical considerations

Approval to conduct the study was granted by the University of Fort Hare Research Ethics committee, the Provincial Department of Health in Bisho as well as the Hospital Manager of Tertiary Hospital and the District Manager of the community centres. Measures were also taken to ensure confidentiality, anonymity, autonomy, privacy and beneficence. A private room was arranged within the clinic for the filling in of the questionnaire. A consent form was designed for the participants to sign after permission had been obtained.

3.16.1 Confidentiality

The process of ensuring confidentiality refers to the researcher's responsibility to prevent data gathered during the study from being linked to any individual participants, or divulged or made available to any person (Brink et al, 2012:38). In this study the data in the form of responses to the questionnaire was kept in a secure place. The participant's information was protected and not divulged to any other person. The researcher shared the information with the research team only.

3.16.1 Anonymity

The process of ensuring anonymity refers to the researcher's act of keeping the participants' identities confidential with regard to their participation in the research study (Brink et al, 2012:37). The researcher ensured that the participants' responses remain anonymous. In this study, the questionnaire was numbered to identify participants.

3.16.2 Autonomy

Autonomy refers to the participant's ability to make his or her own decisions (Brink et al, 2012:36). The researcher ensured that the participants participated voluntarily and could choose to withdraw from the study at any time without being harmed or harassed.

3.16.3 Privacy

The participants have the right to determine the extent to which the general circumstances of his or her private information would or would not be shared with others (Brink et al, 2012:37). In this study, the researcher respected participants' right to privacy, including participants' knowledge, beliefs, attitudes and opinions. Privacy entails the element of personal privacy. The consent form was used in this case to protect the participants' privacy. The researcher reassured the participants that privacy would be maintained by ensuring that personal identities would not be revealed in the reporting of research.

3.16.4 Beneficence

Pera and Van Tonder (2006:25) describe beneficence as the duty to do, or to promote, good. Therefore the researcher had an obligation to promote good and produce benefits for the participants and the community as a whole. The researcher in this study explained the benefits of the study to the participants for example, to be knowledgeable about ART and PMTCT, not only those who benefited from the study but the subsequent pregnancies and the pregnant community. Participants were not given any form of incentives, except knowledge.

3.16.5 Informed consent

Informed consent implies that the participant who must give his/her consent is informed about the procedure as well as its consequences (Pera & Van Tonder 2006:158). Furthermore, Polit and Beck (2006:93) state that informed consent means that participants have sufficient information concerning the research, understand the information, have the control of free choice, and are allowed to consent voluntarily and to partake in the research, or to refuse participation. The objectives of the research procedure and the advantages of the research were explained to the participants. Participants were informed that there was no risk, harm or discrimination involved in

participating in the study, which was voluntary. All participants signed the consent form after all the explanations about the purpose of the research had been given before participating.

3.17 Limitations

The study was conducted at East London, Buffalo City Metropolitan, Amathole District, Eastern Cape. The study participants were residents of East London and surrounding villages. The study was limited to isiXhosa speaking participants who cannot read or write English. The study was basically for more research to be conducted on a large number of participants in other places.

3.18 Dissemination of data

A report in thesis form was submitted as part of the fulfilment of a Masters of Nursing degree to the University of Fort Hare. The researcher will publish the results in an accredited journal. Reader friendly copies will be distributed to health institutions, community health centres, nursing colleges, policy makers and the health resource centre.

3.19 Data analysis

Brink, Van der Walt & Van Rensburg, (2012:177) define data analysis as a process of choosing methods of exploring data and organizing the raw data, as well as analyzing and interpreting data in order to give it meaning. The data analysis assisted the researcher to organize the data in ways that gave meaning and insight to the phenomenon being studied: “non – adherence”.

Frequency tables and graphic presentations were used to organize and display the data in a concise way, assisted in a commendable manner by a statistician. All data was presented in percentage form. Data was entered into the computer using statistical packages for the Social Sciences (SPSS) programmes, version 17.

3.20 Summary

This chapter provided an overall introduction to the study .The problem statement, purpose of the study, significance, research design, methodology including population, sample, data collection instruments, concepts defined and ethical considerations were discussed.

CHAPTER 4

Results and discussion

4.1 Introduction

This chapter focuses on presenting the results, interpretation, and discussion. The results of the analysis were discussed, based on findings, and a conclusion drawn. Tables were used to summarize data, and show the frequencies and percentages, and several forms of bar graphs and pie charts were used.

4.2 Data presentation and analysis

The demographic information of participants used included age, marital status, occupation and level of education. The categorical variables have been used in order to describe and identify the demographic traits of the participants. The other variables considered were food and nutrition, meals afforded per day, knowledge of, ART regime, co-management, level of adherence and practice of health care providers and patients on ART. The response from the participants was good 96%, since a majority (96%) of the participants answered all the questions in the questionnaire.

4.3 Socio demographic information

4.3.1 Age distribution of participants

The participants were required to indicate their ages in order to establish whether age had any influence on adherence to HIV positive pregnant women on ART.

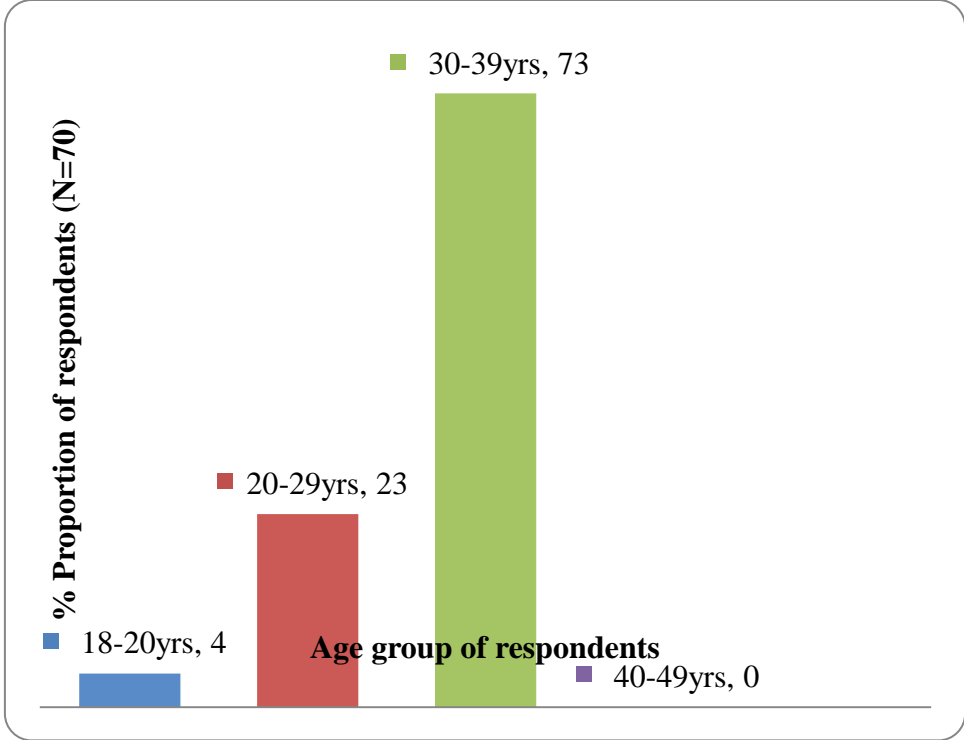


Figure 4.1 Ages of the participants

Figure 4.1.Indicates that the majority 73 % (n= 52) of the participants were between ages 30 to 39. Age group 20 to 29 also had a minimum percentage of 23% (n= 16) and age group 18 to 20 had a smaller percentage of (n= 2), as compared to other groups. The age groups between 40 to 49 and 50 to 59(n=0) were not represented in the study.

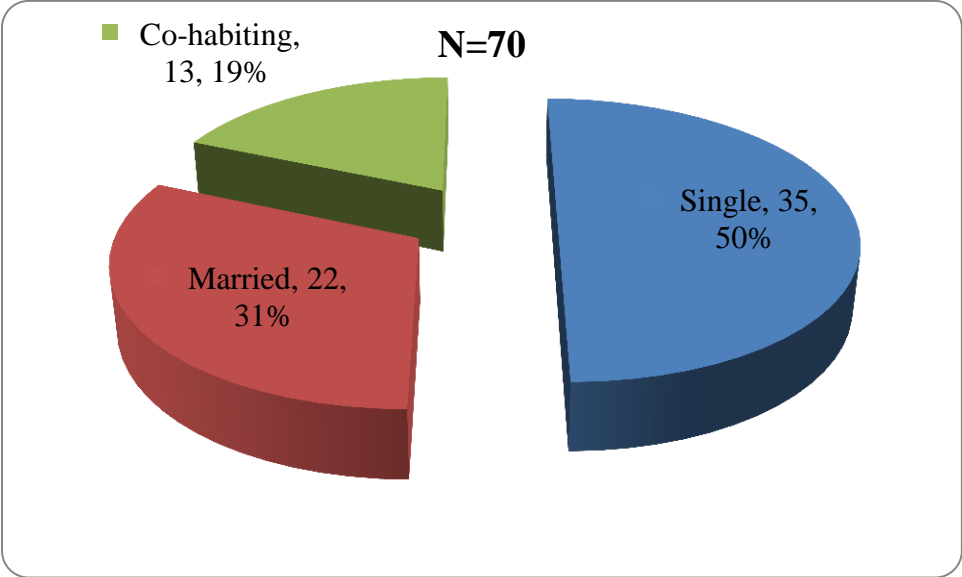


Figure 4.2 Marital statuses of the participants

4.3.2 Marital status

HIV positive pregnant women on ART were also given questions relating to their marital status, whether single, married, or co-habiting. The participants who participated in the study were single, married and co-habiting. In figure 4.2 the single women represented 50% (n=35) married women 31% (n=21) and co-habiting women 19% (n=14).

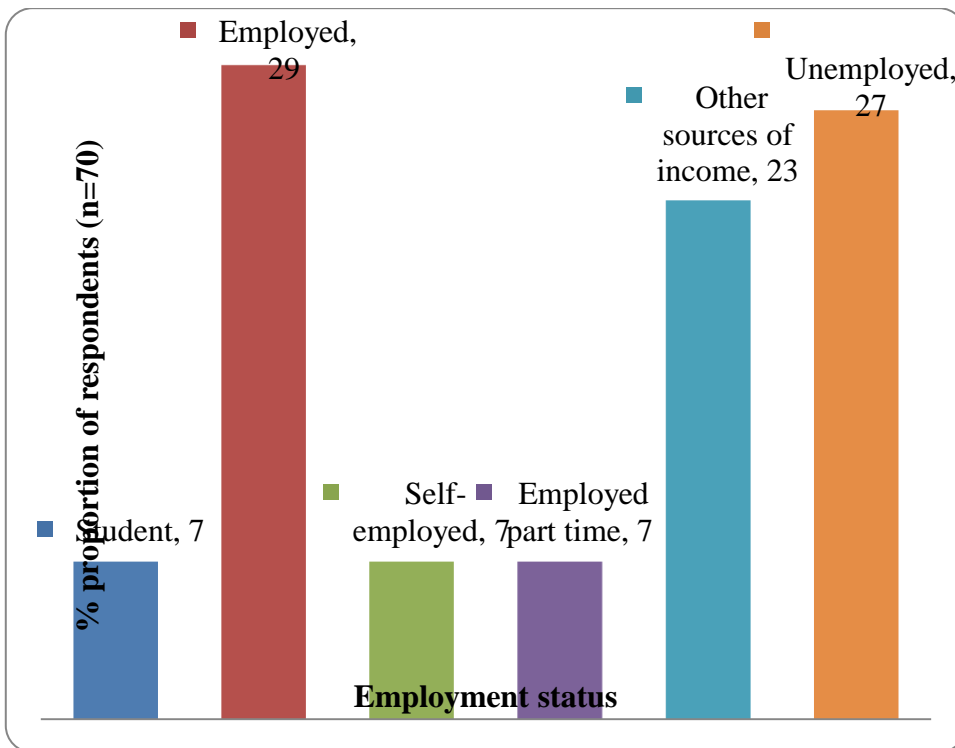


Figure 4.3 Occupation statuses of the participants

4.3.3 Occupation

The occupations of the participants were classified as students, employed, self-employed, employed part time, other sources of income, and unemployed. As shown in (figure 4.3) 29 % (n=21) of the participants were employed, 27% (n=19) unemployed, participants with other sources of income were 23% (n=19) and students, self-employed and part-timers sharing, 7% (n=5).The 'other source of income' in this study means other participants who depended on child grants provided by the Department of

Social Development. This variable may be associated with non-adherence, in that 27% (n=19) of unemployed pregnant women had no income to afford ART or other economic challenges.

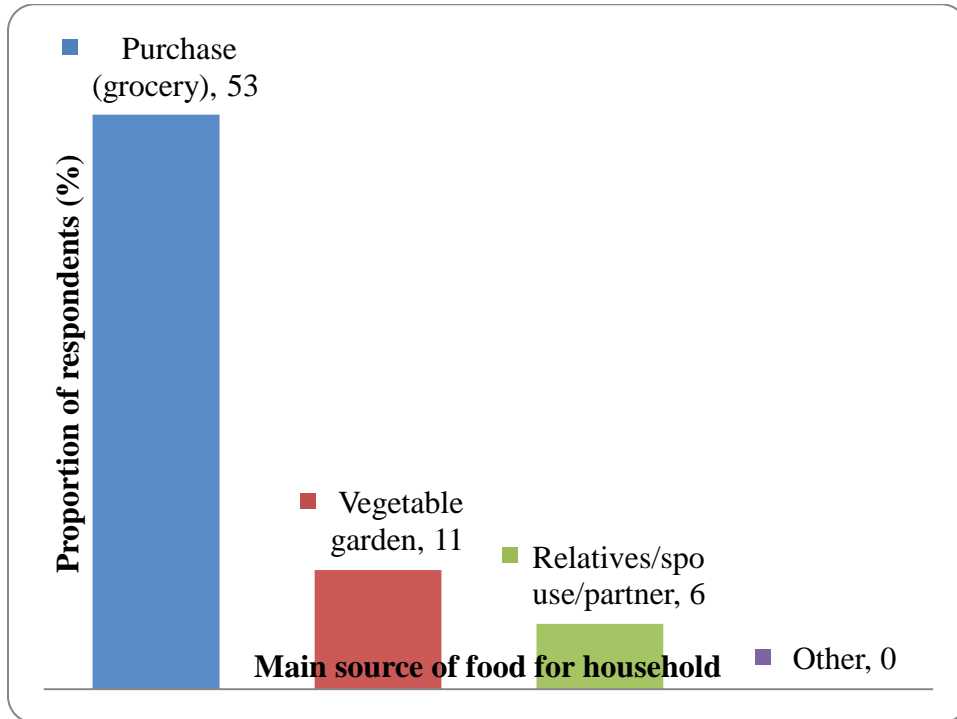


Figure 4.4 Food sources for household

4.4.1 Food and Security

HIV positive pregnant women who participated in the study were also asked to indicate their source of food. Figure 4.4 indicates that n=53 participants depended on purchasing their groceries, whereas n=11 participants had vegetable gardens and n=6 participants depended on relatives/spouses/partners. 'Other' was not applicable. No significant relationship existed between the main source of food for the household and the participants' adherence to ART.

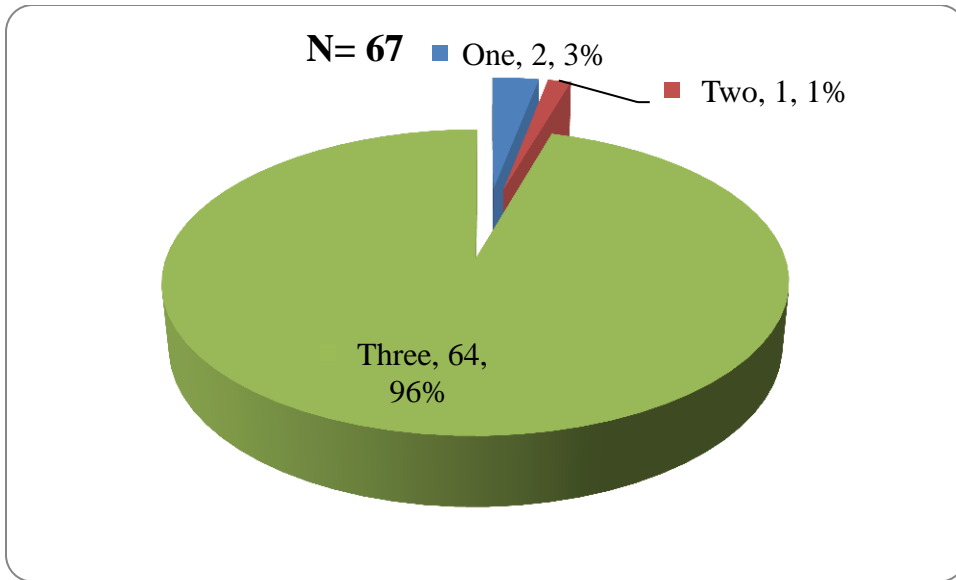


Figure 4.5 Affordable meals per day

The participants were also given a question about meals that they can afford per day. Figure 4.5 indicated that a majority of 96% (n=67) of the participants could afford three meals a day, with only 3% (n=2) affording one meal a day, and 1% (n=1) two meals a day. The results were presented in a pie chart.

4.3.5 Level of adherence

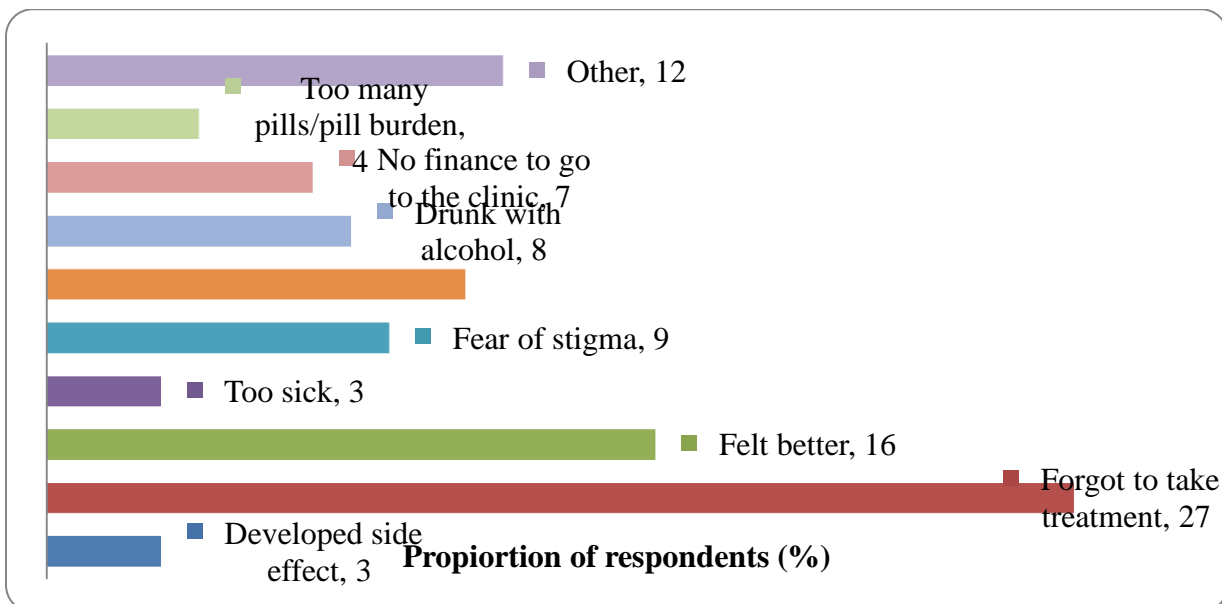


Figure 4.7 Factors associated with non adherence (ART)

The participants were also asked to describe factors that contributed to non-adherence to ART. As indicated in figure 4.7, 27 % (n=19) forgot to take the medication, 16% (n=12) felt better after taking ART, 12% (n=9) had other reasons, like cultural beliefs, or being away for some time. Furthermore, 11% (n=8) did not take the medication because it was finished, 9% (n=6) had a fear of stigma, 8% (n=7) were drunk on alcohol, 7% (n=5) had no finance to go to the clinic, 4% (n=2) had pill burden 3% (n=1) missed the drugs because of being too sick, and 3% (n=1) developed side effects.

Table 4.1 ART currently taken (besides ART)

Medication	No of citations	Frequency (%)	How many times a day
Pain killers	1	12.5	1
Supplements/vitamins	2	47.5	1
Antihypertensive ART	0	0	Not indicated
TB ART	0	0	Not indicated
Antibiotics	3	12.5	Not indicated
Anti-epileptic ART	1	12.5	Not indicated
Other specify	0	0	Not indicated
TB prophylaxis	1	37.5	1

The participants were also asked to indicate ARTs they are taking other than ART in Table 4.1. About 47.5% (n=23) were on supplements, that is, irons that are supplementary to pregnant women whether HIV positive or HIV negative. 37.5% (n=16) were on TB prophylaxis and 12.5% (n=60) was shared by those participants on pain killers, antibiotics, and epileptic ART. None of the participants was on antihypertensive, Tuberculosis (TB) ART or any other ART that may be specified.

Table 4.2 General questions about ART

No	Questions	Number	Percentage
18	Are you able to follow up ART therapy regimen?	69	99
19	Were you told the importance of taking ART regularly?	70	100
20	Were you told about side effects and interactions of these drugs?	48	69
21	Have you received any counselling during your ART?	48	69
22	Do you think counselling is useful for HIV clients on ART?	68	97
23	Was privacy maintained during consultation?	69	99

The participants were asked questions regarding their relationship with Health Care Providers. Table 4.2 indicated that 99% (n=69) were able to follow up ART therapy regimen. It further showed that 100% (n=70) were told about the importance of taking ART regularly. However, 77 % (n=54) were told about side effects and interactions of the ART while 31% (n=16) had never heard about any side effects of the ART, or interactions. Sixty-nine percent (n=48) of participants received counselling while on ART and 31% (n=22) did not receive any counselling during their ART. Ninety- nine (n=69) thought that counselling is important for patients on ART while 15 (n=1) did not think so. Privacy was maintained during consultation for 99% (n=69) and 1% did not have any privacy during consultation.

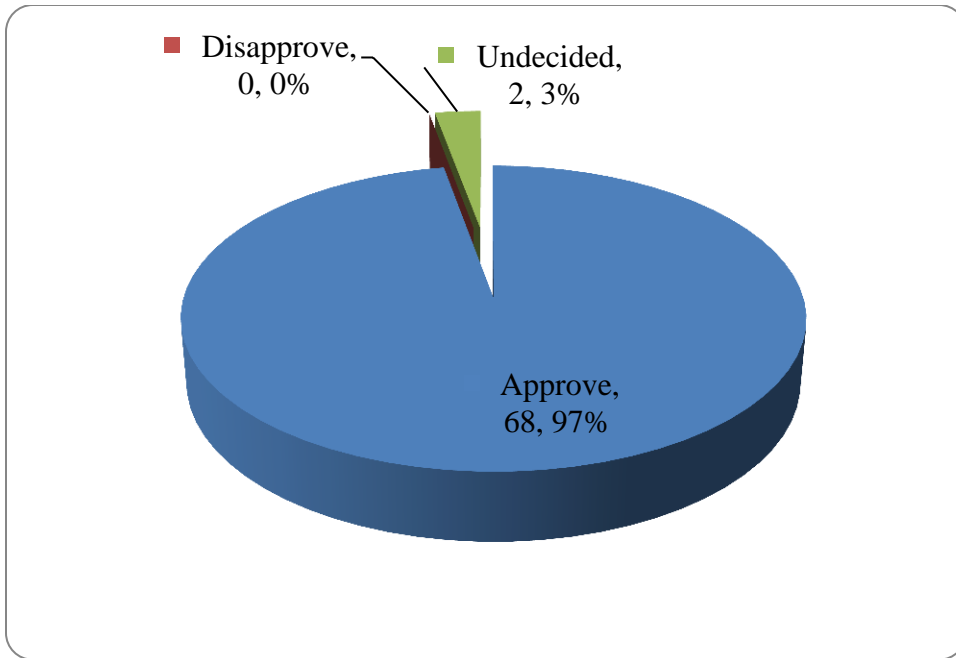


Figure 4.8 Participants' perceptions regarding ART

Participants were asked about their perceptions regarding ART. About 97% (n=68) approved the use of ART, while 3% (n=2) disapproved.

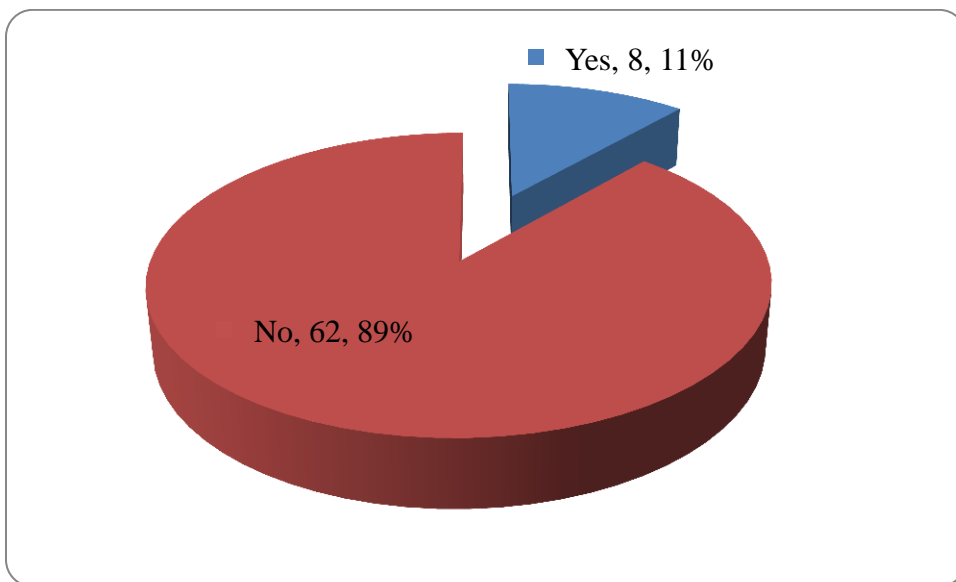


Figure 4.9. The feeling of participants about their status when with friends or family.

The participants were asked whether they avoided their friends and relatives because of their status. In the Figure 4.9, 89 % (n=65) agreed while 11 % (n=5) disagreed.

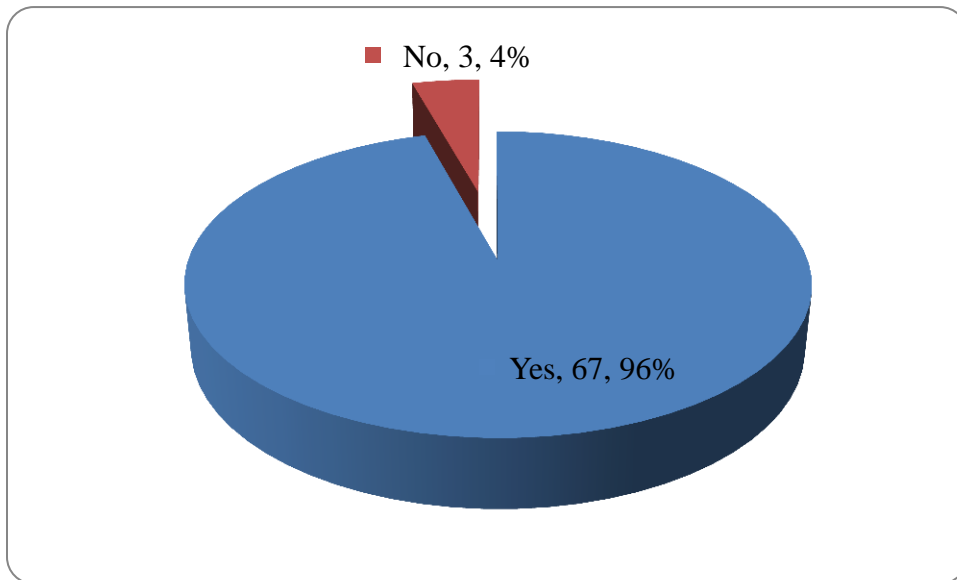


Figure 4.10 Participants disclosure, and to whom

The participants were asked about their HIV disclosure. Figure 4.10 indicates that 96% (n=68) disclosed their status and 4% (n=2) did not disclose their status because of fear of stigma and discrimination. In figure 4.11 participants were asked to whom they disclosed their HIV status. The results indicate that 45% (n=32) participants mostly disclosed to their partners, 33% (n=22) disclosed to a parent (mother), 21% (n=15) disclosed to friends and relatives, while 1% (n=1) disclosed to a child.

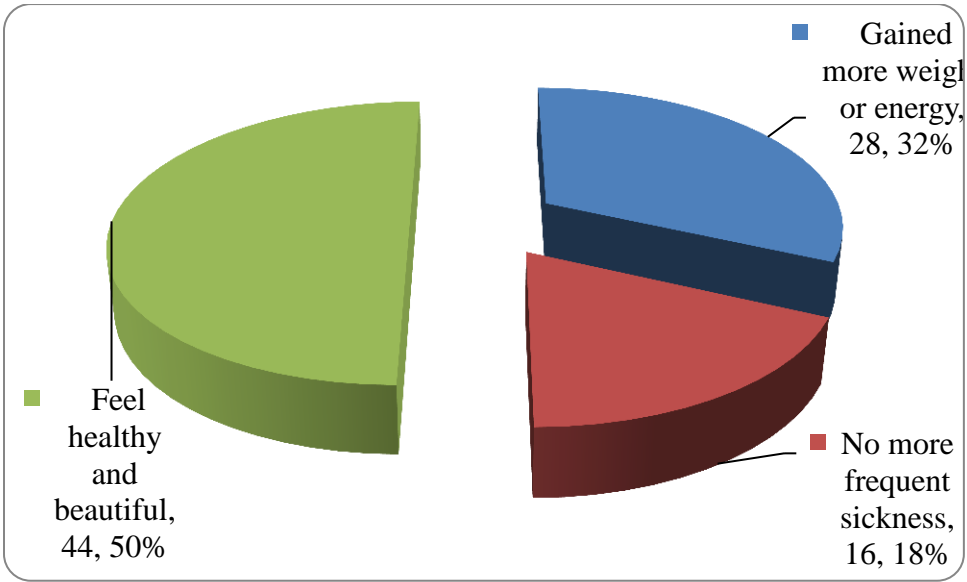
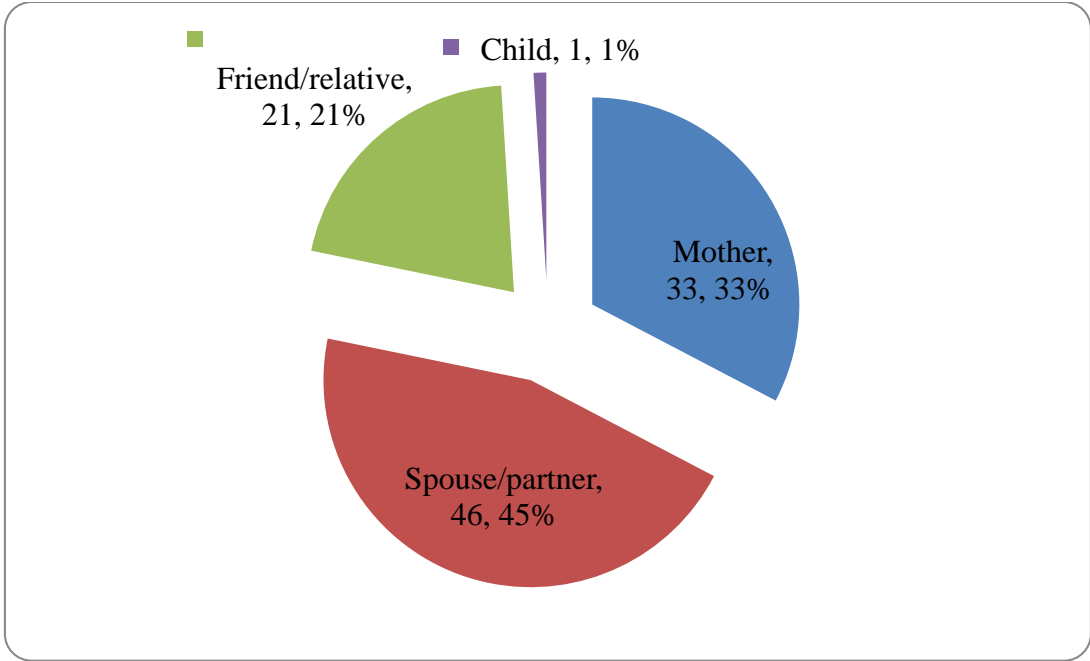


Figure 4.12 Benefits gained by participants from using ART

The participants were asked about the benefits they had gained from using ART. Figure 4.12 shows that the majority of participants, 50% (n=35), had felt healthy ever since they received ART, 32% (n=22) gained more weight after starting ART and 18% (n=13) had experienced no frequent illnesses.

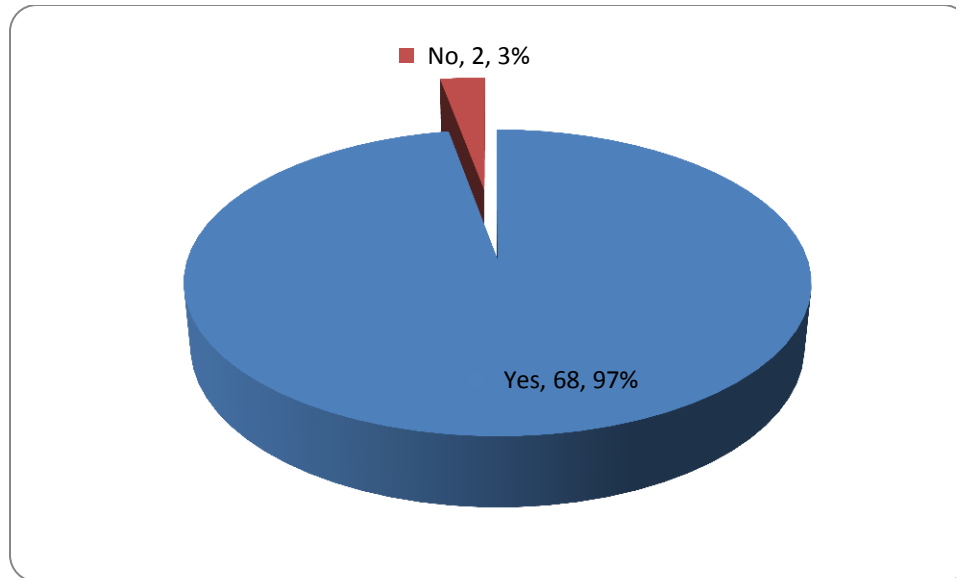


Figure 4.13 Do you think ART can prevent the child you are carrying from being infected by HIV

The participants were asked if they thought ART could prevent their unborn child from being infected with HIV. In figure 4.13 above 97% (n=67) participants were all optimistic about prevention by ART of their unborn child being infected, while 3% (n=3) were not sure.

4.6. Discussion of Results

The theoretical framework was used in this study and the Health Promotion Model was applied. What follows is the discussion of the results within the HPM.

4.6.1. Age

Discussion

Most of the participants were within the age group of 18 to 39 years, and it is anticipated that they are mature enough to appreciate and adhere to ART. These findings indicated that the majority of participants between 30 and 39 years (n=52) are more vulnerable to HIV infection, aware of their status, and are undergoing ART. The study conducted by

Caulbeck (2009:4) in Bangalore, India indicated that older patients showed a tendency towards better medication adherence. This may be related to older patients' familiarity with medication usage, and increased awareness of HIV as a disease that requires optimal adherence (Murri, Ammassari, DeLuca, Cingolani, Marconi, Wu, Antinori, 2001:325).

4.6.2. Marital Status

Discussion

The study showed that marital status contributed to non-adherence in the study, because single women had the highest percentage 50% (n=35) and were likely not to adhere because they may lack financial support and moral support from the partners. Single women may also find it harder to disclose their status to their partners than married and co-habiting women, so they were less likely to be non-adherent than single women. According to Ekama, (2011:3) the use of ART support was relatively common, and greater in married women where husbands were ART supporters in the cases studied, more so than the other women who are not married. Furthermore, a study conducted in Sub-Saharan Africa and North America indicated that many women who were either single or divorced were chased away by their husbands after learning of their HIV status. This discrimination greatly influenced non-adherence to ART and is regarded as a barrier to adherence (Mills, Nachega, Buchan, Orbinski, Attaran, Sighn, 2006:681). Partners and husbands' attitudes, if not taken adequately may affect the morale of the woman to the extent of failing to adhere.

4.6.3. Occupation

Discussion

Although government facilities offer ART free of charge, patients and health care providers felt that the costs of transport influenced adherence, especially among the unemployed. This statement was supported by a study conducted in Senegal and Botswana, which held that transport fees not only deter people from accessing ART care, but also contributes to ART non adherence (Hardon, Akurut, Comoro, Ekezie &

Irunde, 2007:682). Despite the fact that the ART is free, transportation is associated with lower adherence. Castro, (2005:16) reported that participants with higher social status and income are more adherent to their ART than the unemployed participants. However, according to Cauldbeck (2009:6) neither a patient's individual income nor his/her total family's income showed any significant association regarding 100% medication adherence. Thus the HPM states that situational influences in the external environment can increase or decrease commitment to health promoting behaviour.

4.6.4. Food and Security

Discussion

Participants who could afford three meals a day are associated with adherence to ART. This level of adherence was more like the average optimal adherence rate of 95%. These findings suggest that lack of sufficient food does not influence non adherence to ART. A study conducted in Lusaka Zambia by Chisimba and Zulu, (2004: 86) yielded different results because patients skipped ART due to lack of food. Moreover, people living with HIV/AIDS may not be able to maintain high levels of adherence over a long term in the face of such obstacles as experiencing intractable hunger. A study conducted by Weiser, Tullo, Frongillo, Senkungu, Mukiibi and Bangsberg, 2010:6) in Mbarar, Uganda, found that food and hunger not only interfere with day to day adherence, but may cause the discontinuance of ART. Sufficient nutrition for patients on ART is crucial because it boosts the immune system in support of the medication.

4.6.5. Level of adherence

Discussion

The data presented above showed many reasons why patients do not adhere to their ART. The highest percentage was forgetfulness. Either they forgot to take it at a specified time, or totally forgot to take it. Forgetfulness as a factor affecting non adherence, is supported by a study in Ethiopia by Amberbir, (2008:265) which found

that the main reason for missing drugs was forgetfulness. A study conducted in Ibadan, Nigeria, by Olowookore (2007:370) had similar findings - that participant reported missing their medication because they simply forgot. Cultural beliefs and being away are the other reasons for not taking medication (ART). In a study conducted in KwaZulu –Natal, South Africa (Mepham, Zondi, Mbuyazi, Mkhwanazi & Newell, 2010:20) antenatal women were faced with many challenges in adhering to ART. Some of the challenges were cultural beliefs, therapy misconceptions, domestic violence, and hunger, excessive use of tobacco and use of alcohol. Perceived barriers can constrain commitment to action and serve as a mediator of behaviour as well as actual behaviour (Pender, 1996:17)

Feeling better was also a cause for not adhering to ART. If the signs and symptoms of the disease subside those patients are likely to be non-adherent. As reported in Hardon, (2006:6) other reasons for not adhering is feeling healthy and living far away from the health facility, because of non- affordability of the cost of transportation.

However, Bello, (2011:56) argued that rapid improvement in signs and symptoms that brought patients to hospital improved adherence. Furthermore, reasons like pill burden, alcohol consumption, nausea, fear of stigma, and side effects were other reasons for not adhering to ART. Medications with adverse side effects are a major barrier to drug adherence and a cause of therapeutic failure (Carlos et al.,2012:21).Stigma and discrimination remain important factors associated with HIV care (Shaahu, Lawoyin & Sangowawa, 2008:33).

4.6.6. ART taken except ART

Discussion

Participants taking medication other than ART are subjected to non- adherence because of a high pill burden. This is supported by a study done by (Attaran, 2006:680).Patients were prescribed haematimics to improve weight gain and appetite and to prevent anaemia, and some of these patients were to take a minimum number of seven tablets per day throughout their lives. The number was burdensome and too

disgusting for the patients to continue with ART. (Bello, 2011:56). Pill burden is one of the factors contributing to non- adherence, as indicated in the table.

4.6.7. Questions posed concerning ART

Discussion

The findings of this study indicated that most participants were able to go for their ART follow up, and thus they were likely to adhere. All participants were told the importance of taking their ART regularly. Health care providers are an important source of interpersonal influence that can promote commitment and adherence to ART (Pender, 1996:18). This is in line with Shaahu et al, (2008:35) that HIV positive pregnant women are willing and ready to do anything to ensure the well - being of their unborn baby, and to protect their unborn child from HIV transmission.

The majority of participants received counselling while on ART; 99% (n=68) thought that counselling was important. Counselling and health education play a pivotal role, so that participants are able to make informed decisions on ART. All positive messages initiated during pre and post counselling should be reinforced during counselling for ART. The issues that can be discussed during counselling include financial considerations, drug information, and support systems for disclosure and ART adherence (Jones & Barthlomew, 2005:18).

4.6.8. Perceptions regarding ART

Discussion

The majority of the participants approved the use of ART and were likely to adhere. A few participants were still undecided, but were unlikely not to adhere to ART. Increased perceived self –efficacy may result in fewer perceived barriers to specific health behaviour (Pender, 1996:16). Doubting the efficacy of ART and not being able to accept HIV status can lead to decreased quality of life and lack of self-worth (Castro, 2005:56).

4.6.9. HIV disclosure

Discussion

In this study, 96 % (n=68) of the participants disclosed their HIV statuses. Disclosure is associated with adherence. Disclosure of one's status means fighting the stigma attached to HIV, and fighting discrimination. This is supported by Stirrat (2006:483) who stated that disclosure is very important in the fight to limit the spread of HIV infection, including the prevention of MTCT, and therefore those who disclose their status are likely to be adherent to ART. Kumar,(2006:726) added that disclosure may lead to improved access to HIV prevention programmes, as well as increased opportunities to risk reduction strategies, including the use of condoms among sexual partners. Disclosure is associated with increased social and psychological support for the infected partner. In this study, the majority of the participants disclosed to their partners/spouses, who, in most cases, provided emotional support, or act as ART supporters. This is supported by Nachega, Knowlton and Deluca; (2006:129) who hold that with disclosure of HIV to partners who, in most cases, are the husbands, will not only provide support but will act as ART partners for their spouses. Encouragement to the HIV pregnant women to disclose their status is an enabling factor in getting the maximal benefit from disclosure. According to Ezechi, Gab-Okafor, Onwujekewe, Adu, Amadi, and Herbertson (2009:745) women should not be forced to disclose their status, as HIV status disclosure has been reported to be accompanied by partner violence. Instead, women who decline to disclose should be counselled and encouraged, until they feel safe to do so.

4.6.10. Benefits gained by participants from using ART

Discussion

Some participants demonstrated substantial knowledge about ART and admitted that they felt healthy after taking ART, while others had gained more weight and had no frequent illnesses. This is evidence that self-efficacy and commitment to ART are highly significant factors in adherence (Markos, Worku & Davey, 2008:175). However, it has been found that feeling healthy, and with less sickness, can be associated with non-

adherence, because patients forget to take medication as signs and symptoms subside. This is supported by the Olowookore et al (2008:372) study in Nigeria that feelings of being unhealthy and forgetfulness were significantly associated with non-adherence.

4.6.11. Do you think ART can prevent the child you are carrying from being infected by HIV?

Discussion

The majority of participants had a positive attitude towards ART and approved ART as a preventative measure for HIV transmission to their unborn babies. It is not surprising that women are willing and ready to do anything to protect their unborn babies. The above statement is confirmed by Shaahu et al (2008:29) that pregnant women gave the reason for protecting their unborn children from HIV infection as the major motivator for taking their ART as prescribed. The knowledge level of HIV positive pregnant women on ART and PMTCT are important factors in adherence to ART. This statement is supported by Duff, (2010:37) that a high level of knowledge in HIV pregnant women is associated with access, use and adherence to ART.

4.12. Summary

The findings in this research reflect that among participants (HIV positive pregnant women on ART) who were educated and employed, disclosure and levels of knowledge of ART were good. However, some of the participants were still not adhering to ART.

Chapter Five:

5.1 Summary and Recommendations.

The demographic data reveals that where the majority of the participants was knowledgeable about ART and was employed, the adherence to ART was evident in all age groups except age 40 and above. The majority of HIV pregnant women on ART, who participated in the study, were single 50% (n=35) which suggests that they may lack emotional support from the partners and may have difficulty in disclosing their statuses. Food and security showed 76% (n=53) of participants depended on purchasing groceries, with 16% (n=11) participants having vegetable gardens and 9% (n=6) depending on relatives/spouses/partners. Ninety-six percent (n=64) of the participants afforded three meals a day. This shows that the participants in this study were food secured.

The level of adherence revealed that 27% (n= 19) of participants missed ART because of forgetfulness, and 16% (n=12), were feeling healthy due to frequent follow ups and compliance with the ART. Poor follow up, being too sick, side effects, pill burden, fear of stigma, lack of finance, and taking alcohol all hinder the proper management of HIV on pregnant women, and are risky for the unborn babies. Whereas, on the other hand, the relationship between participants and health care givers was good, with 100% (n=70) of participants being able to understand the importance of taking ART and of being counselled while undergoing their ART.

Forty- five percent (n=22) of HIV positive pregnant women who participated in the study disclosed their statuses to spouses or partners, which may suggest increased adherence to ART. Moreover, of the HIV positive pregnant women, 96% (n=68) had a positive attitude toward ART and approved ART as a preventative measure of HIV infection to their unborn babies. This is the motivator for ART adherence.

In this study, most HIV positive pregnant women on ART were educated, employed and disclosed their HIV status, though some still do not adhere to ART. Factors leading to non-adherence among HIV pregnant women on ART were a tendency to forget ART, illusions of feeling better after taking ART, cultural beliefs, or being away for some time,

non-availability of pills, fear of stigmatization, drunkenness from alcohol, and lack of finance to go to the clinic. There is a need for continuous community awareness campaigns in order to educate the communities about HIV/AIDS, the PMTCT programmes and ART, and a need too for extensive training of health care providers concerning the administration. The small sample size of the study limits generalization of the findings to other regions in the Eastern Cape, or to the entire South African region. Future studies should endeavour to include larger samples and to replicate the study in other regions or provinces in South Africa.

5.2 Recommendations for HIV positive pregnant women

The HIV positive pregnant women aged 30-39 were in the majority 73% (52) in the study, which proves that more education is crucial to this age group. However, half of the women in the study were single (50%), while (27%) were unemployed and rely more on purchasing food (57%) rather than using vegetable gardens. The HIV positive pregnant women, especially if unemployed, need to learn strategies on saving what they have, rather than having to rely on purchasing.

Adherence to ART seems to be the problem, caused by factors like stigma, pill burden, use of alcohol, side effects, being too sick and forgetting to take the ART as prescribed. According to this study, only 27% indicated that they comply with ART (feel better 16% and ART finish 11%). Continuous campaigns, workshops and education in schools and the work place are imperative. The majority of HIV positive pregnant women (96%) disclose their status to their partners, especially the married ones to their spouses, and the perception of reducing mother to child transmission is also high (97%) because of ART being high and still increasing.

5.3 Recommendations for the midwives/nurses

Midwives and nurses initiating ART from clinics and CHC`s also need to be empowered, have continuous service and to attend workshops on management of HIV and PMTCT, in order to provide effective and efficient services to the pregnant women.

Good antenatal communication is vital in view of the complexity of the issues involved in the provision of ART and PMTCT programmes. Planning of care should be prioritized and instigated early so that the problems of adherence can be identified early, and addressed in the limited time available. Good midwife-client communication skills are the heart of success in maintaining adherence in clients.

5.4 Recommendations for the community

There is a tremendous need to promote awareness campaigns for HIV care in our communities, in order to promote health in our communities and to promote early booking of pregnant mothers so as to enhance effective utilization of the PMTCT programme. Early booking must also be emphasized during antenatal care. Pre-conception care is also crucial in this era of HIV/AIDS in order to prevent mother to child transmission (MTCT). Reducing MTCT in the communities we are servicing is supporting MDG 4 targeted for 2015. Our communities need to participate fully in HIV management and to work hand in hand with our clinics.

5.5 Recommendations for the Department of Health

The tertiary institution used is a referral hospital. The majority of these HIV positive pregnant women are referred from feeder clinics and community health centres where they need to be assessed and managed by multi-disciplinary specialists for pregnancy related conditions, HIV care, and other medical conditions.

It is recommended that, in order to ensure good adherence levels, support from support groups should be expanded and be made specifically to provide support for HIV positive pregnant women, especially newly diagnosed women attending our clinics and CHC's. The development of practical guidelines for implementing adherence management strategies is recommended. These include the issue of continuous adherence counselling, bringing treatment closer to the people, and family care model approach to ART, practical reminders, adherence case management, and medication organizer.

There is a tremendous need for continuous community awareness campaigns which are recommended to empower our communities to deal with HIV/AIDS, the PMTCT programme and ART, and extensive training of health care providers.

5.6 Recommendations for further research

The researcher recommends a larger study based on the same problem, in order to generalize from the findings of a larger sample. Research is needed to determine patient -important factors for ART adherence.

The researcher also believes that research studies should be conducted in the following areas:

- Experiences of health care professionals regarding providing ART/PMTCT in the antenatal clinic.
- Attitudes of community members towards ART.
- Loss of follow up on delivered ART patients.

5.7 Limitations of the study

The data was collected in Buffalo City Metropolitan, Eastern Cape and only from the residents of East London and surrounding villages. The study will need a larger sample in order to be generalized. The challenge the researcher faced was that other HIV positive pregnant women were rushing to attend ultrasound and other co-morbidity clinics.

5.8 Conclusion

This chapter provides a summary of the research findings, the limitations and the recommendations. The purpose of the study was to identify factors leading to the non-adherence of pregnant women undergoing ART, who attended antenatal care at the Frere hospital and two community centres.

The findings of the research indicated that participants were knowledgeable about ART but more work needs to be done on those who still lack adherence. Clinicians should use the information to engage in open discussions with patients to promote ART adherence and identify barriers. The researcher also believes in empowering midwives and nurses initiating ART in order to render effective and efficient quality care to our HIV positive pregnant women. The researcher further believes that communities need to be empowered with information and to be encouraged to participate in clinic programmes.

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7Mpuntsha St
Duncan Village
East London
26 March 2013

The Research Committee
Ethical Department
University of Fort Hare

Dear Sir/Madam

RE: Request to conduct research Study

I hereby request permission from your office to allow me to conduct a research study. The topic of my research project is **“A study on Investigations on factors that lead to non-adherence regarding pregnant women on Antiretroviral treatment. The study will be done at Frere Hospital (maternity section) and in the two community health centres, Empilweni Gompo Community Health Centre and Duncan Village Day Centre, in Amathole District ,Eastern Cape.**

This study is towards a Mcur Degree under the University of Fort Hare, Department of Nursing Science. The purpose of the study is to fulfill the following objectives

- identify factors leading to non- adherence among pregnant women at the stated facilities
- determine patients knowledge of the perceptions on the use of antiretroviral

The information will be the property of the University of Fort Hare. A summary of the research findings will be distributed to your office

Kind Regards

Kolelwa Felicia Dekeda

7 Mpuntsha Street
Duncan Village
East London
5201

14 August 2013

The Manager
Epidemiological Research Surveillance Unit
Eastern Cape Department of Health
Bisho

Dear Sir / Madam

RE: Request to conduct a research study

I hereby request permission from your office to allow me to conduct a research study. The topic of my research project is **"A" study on Investigators on factors that lead to non adherence regarding pregnant women on anti retroviral treatment in Frere Hospital including two community centres , Empilweni – Gompo Community Health Centre and Duncan Village Day Hospital , Amatole District – Eastern Cape .**

This study is towards a Mcur Degree under the University of Fort Hare , Department of Nursing Science . The purpose of the study is to fulfill the following objectives.

- Identify factors leading to non-adherence among pregnant women at the stated facilities.
- Determine patients knowledge on the use of antiretroviral treatment.

The information will be property of the University of Fort Hare. A summary of the research findings will be distributed to your office.

Kind Regards

Kolelwa Felicia Dekeda

7 Mpuntsha Street
Duncan Village
East London
5201

14 August 2013

The Chief Executive Office
Frere Hospital
Private Bag x 9054
Amalinda

Dear Sir / Madam

RE: Request to conduct a research study

I hereby request permission from your office to allow me to conduct a research study. The topic of my research project is **"A" study on Investigators on factors that lead to non adherence regarding pregnant women on anti retroviral treatment in Frere Hospital including two community centres , Empilweni – Gompo Community Health Centre and Duncan Village Day Hospital , Amatole District – Eastern Cape .**

This study is towards a Mcur Degree under the University of Fort Hare , Department of Nursing Science . The purpose of the study is to fulfill the following objectives.

- Identify factors leading to non-adherence among pregnant women at the stated facilities.
- Determine patients knowledge on the use of antiretroviral treatment.

The information will be property of the University of Fort Hare. A summary of the research findings will be distributed to your office.

Kind Regards

Kolelwa Felicia Dekeda

7 Mpuntsha Street
Duncan Village
East London
5201

14 August 2013

The District Manager
Buffalo City – Sub- District
Amathole District
East London

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QUANTITATIVE DATA COLLECTION TOOL (STRUCTURED QUESTIONNAIRE)

Structured interview guide for HIV pregnant women on PMTCT (A).Socio-Demographic Information

1. Age in years:

(i) 18-20 years []

(ii) 20-29 years []

(iii) 30-39 years []

(iv) 40-49 years []

(v) 50-59years []

2. What is your current marital status?

(i) Single (not married and not living with a partner) []

(ii) Married []

(iii)Co –habiting []

3. What is your main occupation?

(i)Student []

(ii)Employed []

(iii) Self Employed []

(iv)Employed Part time []

(v) Unemployed []

(vi) Other source of income (specify).....

Food and Nutrition Security

4. What is the main source of food for your household?

- (i)Purchase (grocery) []
- (ii)Vegetable Garden []
- (iii)Relatives /Spouse/Partner []
- (iv) Other (Specify)..... []

5. How many meals do you afford to take one day? One [] Two [] Three []

Level of Education and knowledge on ARV treatment

6. What is your level of education?

- (i) Primary education from Sub A—Std 5 []
- (ii) Secondary education from Std6—Std 10 []
- (iii) College/University education []
- (iv) ABET (Adult education) []
- (v)None of the above []

Treatment Regimen and Co management

Level of adherence

7. What things can make you hard for you to remember your treatment?

- (i) Developed side effect []
- (ii)Forgot to take treatment []
- (iii) Felt better []
- (iv)Too sick []
- (v) Fear of stigma or disclosure []
- (vi) Treatment finished []
- (vii) Drunk with alcohol []
- (viii) No finance to go to the clinic []

(ix) Too many pills/pill burden

(x) Other (Specify).....

8. What other treatment are you currently taking (besides ARVs)?

Tick	Medication	How many times a day
i	Pain killers	
ii	Supplements/vitamins	
iii	Antihypertensive treatment	
iv	TB treatment	
v	Antibiotics	
vi	Antiepileptic treatment	
vii	Other specify	

Practice of Health Care Providers and Patients on ARVs

9. Are you able to follow up ARV therapy regimen? Yes, No,

10. Were you told the importance of taking treatment regularly? Yes, No,

11. Were you told about side effects and interactions of these drugs? Yes, No,

12. Have you received any counseling during your treatment? Yes, No,

13. Do you think counseling is useful for HIV clients on treatment? Yes, No,

14. Was privacy maintained during consultation? Yes, No,

15. What is your opinion regarding ARV treatment? Approve Disapprove

Undecided

17. Do you avoid friends or relatives because of your HIV status? Yes, No,

18. Have you disclosed your HIV status? Yes, No,

19. If yes to whom? Mother Spouse/Partner Friend/Relative Child

20. If no why? Scared Not ready yet Will never disclose

22. Do you think that ARV treatment will have positive effect on your health? Yes, , No

23. What benefits have you gained from using ARV treatment?

(i)Gained more weight or energy []

(ii)No more frequent sickness []

(iii)Feel healthy and beautiful []

24. Do you think ARV treatment can prevent the child you are carrying from being infected by HIV?
Yes, [] No, []

Thank you for taking time to participate in this study

PERSONAL DETAILS

SURNAME : DEKEDA

FIRST NAMES : KOLELWA FELICIA

DATE OF BIRTH : 10/09/1974

IDENTITY NO : 7409101154082

NATIONALITY : SOUTH AFRICAN

HOME ADDRESS: 7 MPUNTSHA ST, DUNCAN VILLAGE, EAST LONDON

CONTACT NO : 0797395751

EMAIL ADDRESS: kolelwad@yahoo.co

SPECIALITY : PROFESSIONAL NURSE

DRIVERS LICENCE: OBTAINED IN 2008

EDUCATIONAL DETAILS

MATRICULATED IN 1990

DIPLOMA IN GENERAL NURSING SCIENCE, COMMUNITY, PSYCHIATRY AND MIDWIFERY OBTAINED AT LILITHA NURSING COLLEGE 2005

BACUR IN NURSING MANAGEMENT AND NURSING EDUCATION OBTAINED AT UNISA

CURRENTLY THIRD AND FINAL YEAR STUDENT STUDYING TOWARDS MASTERS DEGREE (MACUR) IN NURSING AT UNIVERSITY OF FORT HARE

PROFESSIONAL EXPERIENCE

WORKED AS A PROFESSIONAL NURSE AT A HIGH CARE WARD IN FRERE HOSPITAL MATERNITY PROVIDING SPECIALIZED HOLISTIC AND OPTIMAL NURSING CARE WITH SET STANDARDS AND WITHIN PROFESSIONAL LEGAL FRAMEWORK.

PROVISION OF COMPREHENSIVE, QUALITY NURSING CARE AS A MEMBER OF THE MULTI DISCIPLINARY TEAM ACCORDING TO THE IDENTIFIED NEEDS OF THE PATIENT BASED ON SCIENTIFIC PRINCIPLES

THEN EXPANDED HER SKILLS IN LABOUR WARDS SAME HOSPITAL AND PARTICIPATED IN TRAINING AND RESEARCH

ASSISTING IN THE PLANNING AND CO –ORDINATION OF TRAINING AND PROMOTE LEARNING OPPORTUNITIES FOR ALL NURSING CATEGORIES

DEVELOPED INTEREST IN HIV/AIDS ESPECIALLY ON PREGNANT MOTHERS AND JOINED ANTENATAL /PMTCT CLINIC AS PROFESSIONAL NURSE SPESIALIZING IN PMTCT

GIVING CONTINOUS EDUCATION AND COUNSELLING WITH UPDATED INFORMATIONON ALL ASPECTS OF HIV/AIDS INCLUDING BENEFITS OF FEEDING OPTIONS

PROVISION OF EXCELLENT THERAPEUTIC ENVIRONMENTFOR PATIENTS THROUGH POSITIVE ATTITUDE THROUGH EFFECTIVE HIV COUNSELLING

ATTENDING WEEKLY MARTENAL MORTALITY MEETINGS

ADHERING TO BATHO PELE PRINCIPLES AT ALL TIMES

SCREENING OF HIV POSITVE PRGNANT WOMEN FOR TB

ASSISTING LOCAL CLINICS ADVISING THEM AS PER PMTCT GUIDELINES

GOOD CLINICAL AND COMMUNICATION SKILLS

POSITIVE ATTITUDE TOWARDS MYSELF, STUDENTS ALLOCATED IN MY CLINICAL AREA INCLUDING NURSING PERSONNEL

SOUND INTERPERSONAL SKILLS, TEACHING SKILLS AND MENTORING OF STUDENTS IN THE CILNICAL AREA

SPECIALITY TRAINING UNDERTAKEN: LEADERSHIP COURSE

: HIV/AIDS COUNSELLING AND MANAGEMENT

PMTCT AND BREASTFEEDING COURSE

WORKSHOP AND SEMINARS ATTENDED: MIDWIFERY SYMPOSIUM

: MIDWIFERY CONFERENCE

: PHAMACO-VIGILANCE WORKSHOPS

: PMTCT WORKSHOPS

CAREER OBJECTIVES:

- ACQUISITION OF NECESSARY LEADERSHIP SKILLS
- INVOLVEMENT IN ORGANISATION

- SELF ACTUALIZATION IN MANAGEMENT SKILLS THROUGH CLASS MANAGEMENT

REFERENCES:

1 MRS N P JWACU

0822270773

2 MRS A F PAULS

0824957284

3 MISS N VELLEEM

0849631374

19 November 2013

Hi Sister

Please find attached the remainder of your results.

Please note that Chi square test is not relevant due to the nature of the results of your study. For example, we may want to use chi square to determine the association between educational level and knowledge on HIV. But since more than 90% of your respondents have knowledge on HIV irrespective of their educational level, testing for association is not wise.

Thank.

Dr. Wilfred Otang

Statistician

University of Fort Hare

8 September 2014

I hereby certify that I have edited, for language purposes, the thesis of Koledwa Felicia Dekeda, entitled "Non-adherence among pregnant women on ART in Amathole District, Eastern Cape.

B.H.Smith

**509 The Valley
70 Jarvis Road
Berea
East London**