CHAPTER 1

BACKGROUND AND ORGANIZING FRAMEWORK

Introduction

Self care is all that people do to maintain their health, prevent illnesses, seek treatment or support, manage symptoms of illness and side effects of treatments accomplish recovery and rehabilitation and manage the impact of chronic illness and disability on their lives and independence (Bain & Reidm 2010).

Human Immunodeficiency Virus (HIV) antenatal self care knowledge has been communicated in various modes worldwide. Face to face talks, audio and videotapes, literature and drama as a measure to prevent negative pregnancy health outcomes. The principles of reinforcement of safe HIV antenatal self care practices, safe behavior including consistent unambiguous information using teachable moments. Uses of familiar or attractive media speaking in the "heart language" of the recipient, makes information understandable and effective (Center for Disease Control, 2012).

During the nineteen nineties, pregnant women diagnosed with HIV ranged from 30-54% of all pregnant women per month in United States. In Africa the picture was 70-89%, and in Sub Sahara 54-94%. In Zimbabwe, it was 69-84% HIV infections. Since the advent of antiretroviral therapy, there has been a reduction in occurrence of AIDS defining opportunistic infections (WHO, HIV and AIDS surveillance Report 2010). However it has been noted with great concern that the child bearing population surviving longer with HIV and AIDS reflect an increased prevalence of pregnant women living with HIV and AIDS (WHO 2010). There has not been a decrease in the incidence of HIV

infection in low density areas. Increases are reported for minorities, pregnant women in some geographical areas with dense urbanization (Patalla, 2010).

The incidence of HIV and AIDS related death which continues to be high among pregnant population of Zimbabwe underscores the need for HIV antenatal self care knowledge that will meet growing needs for long term support and services in this sector of population (Heckman Solani, Kalichman, 2010).

Although medical therapy is a primary mechanism for HIV and AIDS disease control, many individuals engage in HIV antenatal self care initiated behaviors. They are useful in maintaining health, quality of life and perceptions of well being. HIV antenatal self care aid individuals to live with HIV and AIDS as a chronic, but manageable disease, (Berry, 2010). In a similar study by (Heckman et al 2011) on self care practices among HIV pregnant women, findings indicate that self care antenatal practices were viewed as having a positive effect on their lives and on the progress of the disease. The study participants highlighted that HIV antenatal self care activities, were aimed at keeping themselves healthy as well as retarding disease progressions. Gaskins and Brown (2010), in their study on HIV self care in pregnancy versus disease related self care activities revealed that, 98% of the participants highlighted that rather than viewing the HIV self care practices in general, as health promoting behaviors, or disease management activities, they viewed these as positive activities not only to enhance their lives but also increase the awareness of the need for prevention of transmission (Sowell and Christiansen 2010).

Barroso (2010), in his study on Self Care Practices of Long Term Surviving, views self care knowledge in HIV pregnant women as the single most important strategy

in decreasing the fear and stigma related to HIV in the communities. Pregnancy is a time of happy anticipation and planning, but it is also a time of doubts and concerns for an HIV positive woman (Schreiber, 2010). Their biggest worry is whether their baby develops normally and arrives in healthy condition (Schreiber, 2010). Education is needed by HIV positive pregnant women and their families on HIV antenatal self care practices. It is fundamental to prevention, control and treatment of HIV and AIDS (Center for Disease Control, 2010 (CDC 2010).

The impact of antenatal care on birth outcomes, when women utilize antenatal self care appropriately, increases their chances of having successful birth outcomes. Antenatal care includes four focused visits to low risk pregnancies and more frequent visits to risk based pregnancies such as in HIV or preclampsia (WHO 2011). It includes discussions with health care providers on what lifestyle changes should be made during pregnancy, such as tobacco smoking or alcohol drinking cessation, safe sex, prescriptions of drugs such as ARVs, vitamins, antibiotics or antimalarials to ensure healthy mother and infant. (McGlade et al, 2010). If the above changes do not occur, the pregnancy is more likely to be problematic or result in an infant with defects or prone to early mortality (McGlade et al, 2010). Therefore it can be hypothesized that if an HIV positive pregnant woman has HIV self care knowledge and practices it, positive pregnant outcomes can improve.

Research on HIV symptoms and quality life styles by Barroso, (2010), points out that there is no definitive explanations of what leads to a mortality advantage than cessation of behavioral factors such as drug abuse, alcohol consumption, tobacco smoking. Cultural factors unfavorable to pregnancy safety, such as poor diets, too much

domestic chores, unsafe sex, late booking are detrimental in HIV pregnancy (Dittopo Prudence et al, 2008).

Problem Statement

The problem is that though there is a significant reduction from 69 to 16.3% in the prevalence of new HIV cases among pregnant women in Zimbabwe, there is an increase in HIV and AIDS related maternal and infant deaths which seem to be attributable to low levels of HIV antenatal self care knowledge. This is supported by a study on HIV in pregnancy done by WHO (2010), which stated that, HIV infections continue to occur in resource limited countries and birth of an HIV infected infant is sentinel event which represents missed opportunities, and barriers to information on HIV antenatal self care.

The concern is that the rise in maternal and infant mortality and morbidity rates in Zimbabwe seem to a greater extent linked to lack of HIV antenatal self care knowledge. This may result in poor HIV antenatal self care practices, which lead to poor birth outcomes. A study by Hunt (2010), on self care in HIV and pregnancy states that, the mastery of general HIV antenatal self care practices is underpinned by basic fundamentals of acquired HIV antenatal self care knowledge. HIV antenatal self care differs from general antenatal self care in various ways hence the need for it to be over emphasized (Schneider, 2010). Reduction of maternal mortality by ¾ by 2015 in Zimbabwe is unattainable unless HIV antenatal self care knowledge is made universally accessible. The magnitude of the above problems cannot be overlooked, hence the reason to examine the relationship between HIV antenatal self care knowledge and HIV antenatal self care practices of HIV positive pregnant women at Chinhoyi Provincial Hospital.

HIV antenatal self care knowledge is given at most health care settings of Zimbabwe ANC. ANC educational coverages are globally 79%, United States 100%, Africa 69%, Sub Sahara Africa 44% and Zimbabwe 43%, (WHO, 2012). Health Information Communication Association (2012), reported that, information and communication facilitate people to take initiative for better self care. This is the case in HIV positive pregnant population of Zimbabwe; they need to access the information in order to change their self care practices to reduce maternal and infant mortality rates.

Observational studies support the concept that antenatal self care knowledge improves self care practices and pregnancy outcomes (Kogan et al 2009). It is important to educate child bearing women in order for them to make early initial ANC visits, and gain maximum benefits and allow for early detection of medical and obstetrical conditions (Sellers, 2010). First consultations are often late in pregnancy in most prime ups in developing countries. Furthermore the proportions of women who are obtaining the recommended minimum four ANC visits in the developing countries is very low due to lack of ANC self care knowledge, (WHO 2010).

In Zimbabwe studies show that most HIV positive women lack self care knowledge on ANC and hence wait until the second trimester to book for antenatal care (Okonlola et al 2010). The investigator found it necessary to investigate HIV antenatal self care knowledge of HIV positive pregnant women in relation to HIV antenatal self care practices.

Self care is the performance or practice of activities that individuals, institute and perform on their own behalf to maintain life, health and well being, (Orem, 2010). When

self care is effectively performed, it helps to maintain structural integrity and human functioning and contributes to human development (Orem, 2001). In the study antenatal self care will help the woman achieve optimal health and good pregnancy outcomes.

Despite the fact that good evidence for best treatment of major obstetrical complications is available much evidence based proven benefits are based on antenatal self care knowledge, (Fauveau and de Bernis, 2008). HIV antenatal self care knowledge may help the study subjects to attain good pregnancy outcomes through modification of HIV and antenatal self care practices.

In Zimbabwe antenatal coverages are high in urban areas which covers 60% and low in rural areas, which covers 40% because more people are reached with information in urban than rural areas, (Ngoma & Mubata 2009). In a cross sectional study by Mastand and Roos, (2008) to explore the pregnant women with prior and current obstetrical medical conditions, knowledge on antenatal self care and self care knowledge, led to early bookings.

In another study on HIV antenatal self care in the context of Primary health care UNICEF, (2011), related that to enable HIV pregnant women to practice appropriate HIV antenatal and effective self care, correct, essential and adequate information on HIV antenatal self care should be delivered in a culturally sensitive manner. While it is recognized that HIV antenatal self care practice is the responsibility of individuals, families and communities, accessibility to essential self care knowledge in pregnancy and HIV is needed to assist women to correctly practice self care, (Priya, 2011).

In a study conducted by Dean (2011) about health promotion self care in HIV positive pregnant, elucidated that, self care constitutes of 65% of total health demand

practices of one's entire life, while medical professional demands are 35%, hence the need to intensify HIV antenatal self care knowledge dissemination. Zimbabwe with the need to provide adequate essential HIV antenatal self care knowledge came up with an information device, the roadmap to HIV/AIDS and antiretroviral treatment. The instrument provides information of nutrition, opportunistic infection management, ARVs effects and side effects, disclosure and adherence, social habits and condom use to name but a few, Ministry of Health & Child Welfare (2009).

Though Zimbabwe has ANC coverage of 69%, studies on substance abuse in HIV pregnant women Bain et al (2011) found out that 8.2% antenatal population smoked and 17.7% took alcohol. This alone is a challenge which warrants rigorous health education in ANC and HIV/AIDS in Zimbabwe. Factors such as resettlements, poor economical status of the country and lack of both human and material resources widen the need gap in pre-conceptual education and HIV antenatal self care knowledge in the whole country, hence the need for the study.

HIV antenatal self care knowledge includes the things people already do for themselves. Such as to maintain their own health in activities such as washing their bodies everyday and brushing teeth regularly, increasing the amount of fruit and vegetable intakes per day and stopping smoking and alcohol consumption, (Bain B et al, 2011).

When they have symptoms taking of home remedies or over the counter drugs safely, taking drugs recommended in pregnancy only, and supplements such as folate, folic, vitamins, A, D, C, E and B. Exercising and resting appropriately, and be able to segregate the range of spectrum antenatal self care from 100% at home such as managing

a “flu” with plenty of fluids, paracetanal and rest. To 100% professional care for example when one requires admission (Drug and dietary supplements, 2012).

In an effort to promote HIV antenatal self care knowledge, research evidence will facilitate autonomous decisions that take account for HIV positive pregnant women’s own experiences, goals and desires, in implementation of HIV antenatal self care practices (Patalla et al, 2010)

Purpose

The purpose of the study was to examine the relationship between the level of HIV antenatal self care knowledge and the nature of HIV antenatal self care practices among HIV positive pregnant women aged 18-40 years at Chinhoyi Provincial Hospital.

Theoretical Framework

Theoretical framework is an overall underpinning of a study (Polite & Beck 2008). The theory of self care deficit by Orem (2010) was chosen for this study because it provides a pattern of proper nursing reasoning to guide the study. It provides the three interrelated theories which help to explain HIV antenatal self care related issues. The self care the self care deficit theory and the nursing systems.

Self Care Deficit

The theory of self care deficit is when therapeutic demands exceeds, self care agency and then a self care deficit occurs, nursing is required (Orem, 2010). Self care deficit theory is capacitated by the self care agency to meet the therapeutic demands, Politic & Beck (2008). In this study the midwife identifies the HIV positive pregnant women’s therapeutic demands, which are the HIV antenatal self care practices, in nutrition, opportunistic infections, hygiene exercises and rest, ARVs and general well being. The

midwife then guides the woman in adapting the correct HIV antenatal self care practices for better pregnancy outcome.

Self Care

Orem (2010) defines self care as the performance or practice of activities that individuals initiate and perform on their own behalf to maintain life, health and well being. When self care is effectively performed, it helps to maintain structural integrity and human functioning and contributes to human development (Orem, 2010). The theory of self care works with the self care agency who is the HIV positive pregnant woman. The self care agency is the human's acquired powers and capabilities to engage in self care. In the study the midwife will help the HIV positive woman in identifying the day to day living activities, which are not compatible with HIV antenatal self care practices. The midwife educates the woman towards positive HIV antenatal self care practices highlighting that it slightly differs in antenatal self care of an HIV negative pregnant women.

The ability to engage in self care is affected by basic conditioning factors. These include, age, in this study the subjects ages are from 18-40 years. Mature agency tends to take information easily but the midwife also have cognisance of complications associated with ages, such as above 35 years. The midwife devised self care activities as required. Developmental state, whether the women has any disability, physically or mentally, health state, of which in this case the HIV positive pregnant woman's health is compromised. HIV antenatal self care knowledge will enable the women to maintain good health through correct HIV antenatal self care practices. Socio cultural orientation will be corrected to suit HIV, positive pregnant women's self care demands. Diagnostic

and treatment modalities, of which in the study are HIV positiveness and prescriptions of ARVs or other drugs as per health care demands. HIV antenatal self care knowledge will enable the HIV positive women to safely care for themselves. Environmental factors and resources, limitations are also taken aboard into consideration in self care system.

Nursing is contributed effort toward designing, providing and managing system of therapeutic self care for individuals or multi-person units within their daily living environments (Orem, 2010). HIV self care if it is to be positively therapeutic, helps to sustain life processes, to maintain integrated functioning, to promote normal growth and development (Merwin and William, 2009).

Nursing Systems

The theory of nursing systems designed by the nurse is based on the assessment of an individual's self care needs and abilities of the patient to perform the self care activities (Orem 2010). The system is capacitated by the nursing agency. The nursing agency is a complex property or attribute of mature or maturing people educated and trained as nurses that enable them to act, to know, and to help others meet their therapeutic self care demands. Nursing agency are carried out for the benefits and well being of others.(Orem 2010). Self Care nursing agency may be affected by conditioning factors such as human and environment at some points in time (Renpenning & Taylor, 2009).

Orem (2010) identified three classifications of nursing systems to meet self care demands of self care agency. These are wholly compensatory systems, partly compensatory and supportive-educative system. The wholly compensatory system is when the nurse wholly accomplishes patient's therapeutic self care. In case of HIV

antenatal self care practices, the system will only be applied to an HIV positive pregnant woman who has deteriorated into an AIDs complex and needs hospitalization. The partly compensatory system is whereby the nurse agency performs some of self care measures for the self care agency. In the study the nurse initially imparts HIV antenatal self care knowledge to the HIV positive woman on treatment modalities, nutrition, exercises, alcohol, smoking and appropriate life style for HIV antenatal self care practices. The nursing agency compensates for HIV self care knowledge deficits which may bring limitations to patient's HIV antenatal self care practices. As soon as the HIV positive woman is empowered with education, her HIV antenatal self care practices are to a greater extend molded.

The supportive educative system, in this study, the self care agency is capable of performing all sorts of HIV antenatal self care, but may be limited by lack of resources on how to meet these self care demands. The nurse assists the HIV positive woman by supporting, educating and guiding her on correct HIV antenatal self care practices, during the follow up visits. Orem, (2010), states that human beings are different from other living things in that they have the ability to think about themselves and their interactions with their environments.

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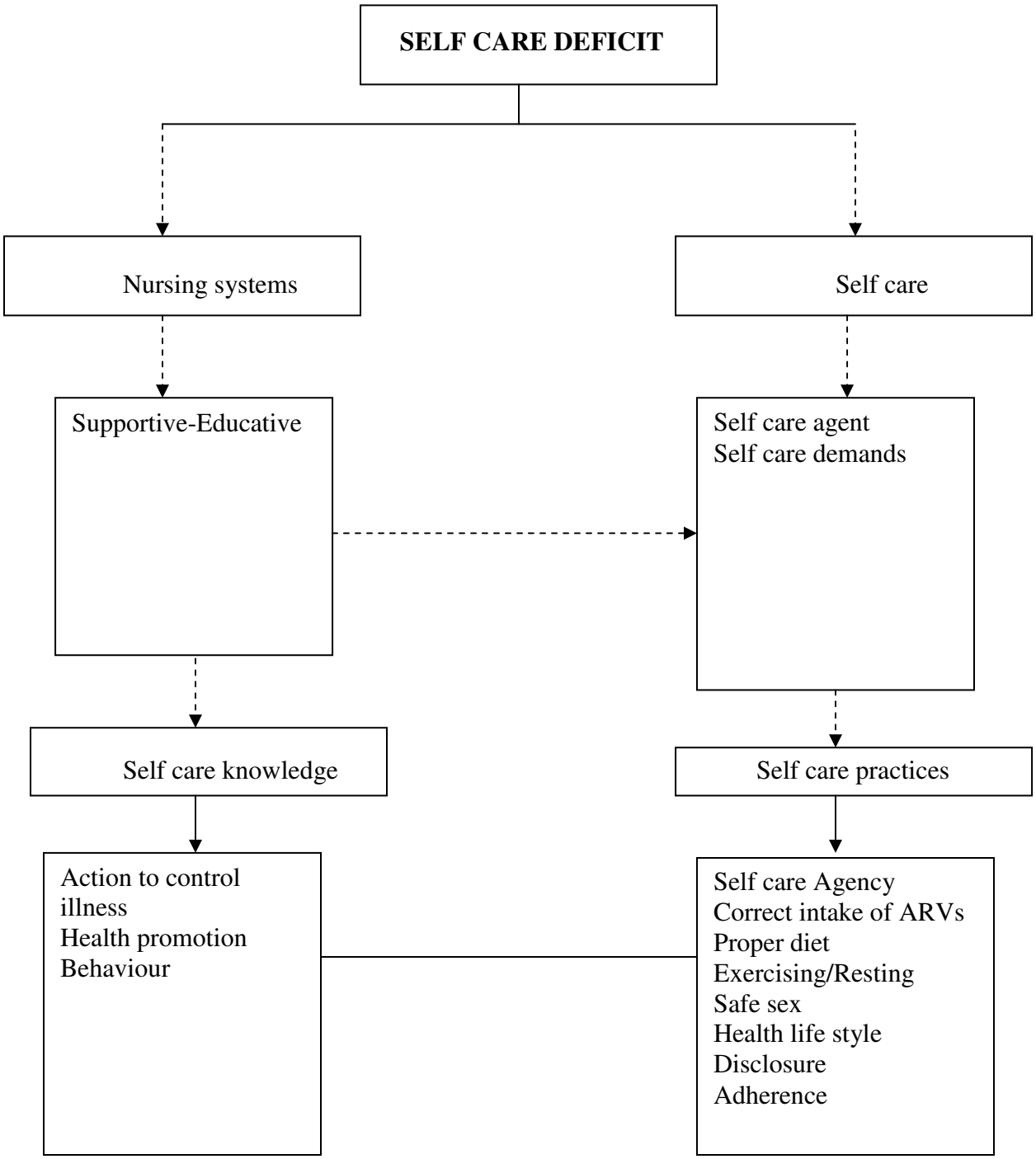

Adapted from Doreen Orem's Self Care Model (2009)

Conceptual Definition of Terms

Antenatal Self Care Knowledge

Antenatal self care knowledge is acquired information which guides the performances of activities that individuals initiate and perform on their behalf to maintain life, health and well being during pregnancy and through labour (Acheson 2009).

Self Care

Self care is the ability of individuals, families and communities to promote health prevent disease and maintain health and cope with illnesses and disabilities with or without the support of a health care provider (Plianbangchang, 2011).

Self Care Agency

It is the human acquired powers and capabilities to engage in self care, (Renpenning & Taylor 2009).

Self Care Deficit

It is when therapeutic self care demands exceed self care agency (Orem 2010).

Self Care Demands

The total of care, activities needed, either at an identified moment or over a period of time, to meet the required self care (Julia, George, 2010).

Nursing Systems

It is designed by nurse, based on the assessment of an individual's self care needs and assessment of abilities of patient to perform self care activities (Renpenning & Taylor 2009).

HIV is the human immuno deficiency virus (WHO, 2009).

AIDS is acquired immunodeficiency syndrome, (WHO, 2009).

Objectives

The following objectives will guide the study

1. To determine the level HIV antenatal self care knowledge among HIV positive pregnant women aged 18-40 years at Chinhoyi Provincial Hospital
2. To establish the nature of HIV antenatal self care practices among HIV positive pregnant women aged 18-40 years at Chinhoyi Provincial Hospital.
3. To examine the relationship between HIV antenatal self care knowledge and HIV antenatal self care practices among HIV positive women aged 18-40 years at Chinhoyi Provincial Hospital

Research Question

The study seeks to answer the following questions

1) What is the level of HIV antenatal self care knowledge among HIV positive pregnant women aged 18-40 years at Chinhoyi Provincial Hospital?
2) What is the nature of HIV antenatal self care practices among HIV positive women aged 18-40 years at Chinhoyi Provincial Hospital?
3) What is the relationship between HIV antenatal self care knowledge and HIV antenatal self care practices among HIV positive women aged 18-40 years at Chinhoyi Provincial Hospital?

Significance to Nursing

HIV and AIDS research is a global public good which can be translated into effective delivery of research outcomes for the benefit of all people, particularly Zimbabwe. It is hoped that the study findings, will improve the home management of HIV antenatal self care practices through better individual and community knowledge of

HIV antenatal self care. It is desired that the study findings would be utilized by the midwives and nurses in addition to what they already hold in the scientific body of midwifery knowledge.

It is anticipated that the study findings would effectively hold the relationship between HIV antenatal self care knowledge and HIV antenatal self care practices of those who will benefit from the educational lessons by the midwives. The midwives and nurses are challenged to base their practices on their unique HIV self care knowledge and scientific knowledge which decisions depend, into precise situations which they share with patient. The findings will probe midwives to make sensitive observations in each patient's environment, selecting relevant information both objective and subjective in order to come out with proper management in expected patient based output.

The findings would also help midwives in keeping in mind that health is also culturally determined, not an entity on its own, but rather a definition imparted by ethos and beliefs of the groups to which individuals belong. Knowledge derived from findings especially HIV antenatal self care knowledge in relation to HIV antenatal self care practices should enable midwives to help the woman to regain the sense of identity. Self worthy and empower them to overcome negative cultural constraints which impact negatively on their health and marriages.

The study should bring a new horizon to today's midwives to overcome the masquerade in traditional women's sexual behaviors in relation to their HIV statuses thereby minimizing transmission, maternal and infant mortality and morbidity rates. In midwifery training, there is a concern for safe HIV antenatal self care practices in midwifery, knowledge base and research seek to advance that knowledge.

The study allowed the investigator to receive criticism, advice and encouragement from the lectures supervising her. Educators in the field of midwifery will split on the utilization of good findings in improving the quality of care given to patients, and providing scientific rationale for change. The study provides with bases for dealing with current related health care needs and dilemmas.

The study utilization will provide renewal or refurbishing of knowledge in HIV antenatal self care practices lessons. The findings would encourage pupil midwives into researching wider on the topic. The developed world has too much information already, but developing countries as Zimbabwe have too little, the study will contribute towards information dissemination. The health problem of HIV antenatal self care practices in Zimbabwe are best known by me as a Zimbabwean, therefore the study will be beneficial to a Zimbabwean HIV positive woman than one in London or Geneva, may influence health policy changes.

CHAPTER 2

LITERATURE REVIEW

Introduction

The purpose of this study is to examine the relationship between the levels of HIV antenatal self-care knowledge and the nature of HIV antenatal self care practices among HIV positive pregnant women. Chapter 1 presented the background and problem of the study, while chapter 2 will review related literature. The study variables are the nature of HIV antenatal self care practices as dependent variable and the nature of HIV antenatal self care knowledge as independent variable. The study reviewed related literature on, HIV antenatal self care practices, ANC, nutrition, ARVs, adherence, hygiene, exercises, alcohol consumption and tobacco smoking.

HIV antenatal self care practices

These are the activities that individuals initiate and perform on their own behalf to maintain life, health and well being (Orem, 2010). In this study HIV antennal self care practices is the dependent variable. HIV antenatal self care practices include early booking from at least 14-16 weeks. This is recommended so that one will benefit from antenatal services such as early detection of risk and early intervention to improve pregnancy outcomes (Sellers 2010).

A woman is expected to visit the health centre for normal antenatal care about four times. The first visit being at 14-16 weeks, second 20-24 weeks, third 28-32 weeks and last visit at 36 weeks (WHO, 2011). Late bookings were attributable to lack of awareness on the seriousness of pregnancy risks. Long distance, lack of human material

resources and attitudes of health personnel, (Suya, 2010). Nsemulike (2010) related that factors that hindered women from booking ranged from lack of knowledge to lack of money for booking costs and transport (Nsemulike, 2010).

HIV antenatal self care practices on antenatal care, nutrition, taking of ARVs, adherence hygiene and exercises are reviewed.

In a study by Awenmic et al (2011) on antenatal self care in HIV related that 65% of the study subjects booked early because of knowledge gained on previous pregnancies, but 35% reported that they did not find a valid reason for doing so, since they were physically well. This then justifies the need to impart HIV antenatal self care knowledge in women, so as to shape their HIV antenatal self care practices. In another study by Aluko et al (2010) on antenatal in HIV women, cited that only 28:2% of the study subjects booked in the first trimester, 62.4% booked in the second trimester and 28.2% at the third trimester because of various sources of influences during their pregnancies.

Okunlola et al, (2011), reported that 6% of the study subjects who booked between 16-20 weeks benefited from practices such as taking of foliate, ARVs and antimalarials early in pregnancy. This was correlated to positive pregnancy outcomes. I another study on pregnancy outcomes in HIV era, Christian et al, (2011), related that 56.5% of the study subjects who booked in the first trimester had positive pregnant outcome, related to holding correct information on HIV antenatal Self care practices.

HIV positive pregnant women need to know their attributes, those of their families and communities, identify common health problems affecting them in a given setting. Devise mechanisms for increasing awareness empowerment and knowledge of what they can do themselves as HIV antenatal self care practices (Gupta, 2012)

Rauyajin, (2012), elicited that health value means that people who value health will practice self care provided they have sufficient knowledge.

Nutritional Practices

In a study by Silk et al (2010), about 80% of subjects reported that taking 1 boiled egg, 1 cup cooked straight run or out meal porridge. A cup of tea or coffee or milk with 2-4 teaspoons sugar and 1-6 slices of bread for breakfast. The study findings reported that the subjects practices where correlated to good nutritional statists during their antenatal periods.

In a study by May, (2010), on nutrition in pregnancy related that 94% of the subjects reported taking of proteins in meals as, two pieces luncheon meat, 2 fish or 2 pieces chicken during diner, a $^{1}/_{2}$ cup of cooked sugar beans, $^{1}/_{4}$ cup of peanuts or 2 teaspoons of peanut butter per serving two times a day, as common in 94% of the study subjects

A study by Tinkele et al, 2010 on nutrition in pregnancy highlighted that 90% subjects reported taking two slices of chicken, beef, pork or mutton with tomato soup, royco or soy soups, fried, baked or boiled, at least two times a day for lunch, and supper. They also took rice, meal cooked portions, of refined or whole, cereals mixed rice with peanut butter, yarn or purees as lunch or supers. Among those who practiced taking of a well balanced diet suppressed HIV related malnutrition during pregnant. In another study on nutrition in pregnancy in Zimbabwe and Zambia Munjanja, (2009) reported that, Sadza with vegetables, beans, meats were commonly reported for lunch and suppers in 90% of the subjects. In about 95% of the subjects' fruits were found to be less frequently

taken, to as less as twice or three time per month, and this led to micro malnutrition in 67% of the study subjects.

In a study carried out by Khorga (2010), in Harare, a woman highlighted that "There is a lot that a pregnant woman can do to care for herself during pregnancy on diet, drugs, nutritional supplements, physical activity and sexual intercourse. "During pregnancy the woman's diet should be adequate and nutritious. "I take care of myself by consuming enough nutrients for myself and the fetus, because nutrients first nourish the fetus", (Monica, 2012). In another study on self care during pregnancy, by Naggy, (2011) a study participant, reported "The diet should be balanced and include fresh fruits, grains, and vegetables, cereals that are high in fibre and low in sugar are my choice." In the same study 80% of the study subjects confirmed that they had gained weighting 2-3 kg during the first trimester. Antiretroviral therapy improves nutritional status, but independent from its effects on viral suppression and immune status, wasting may still develop (Chikazhe, 2011).

ARVs Practices

In Zimbabwe women are given pre-initial education three sessions before being initiated on ARVs to promote adherence. HIV positive pregnant women who have clinical symptoms of stages 3 & 4 or who have a CD4 cell count of <350 cells/mm^3 are initiated immediately.

Adeoye et al (2010), in his study on ARVs in pregnancy reported that 68% of subjects confirmed that they would have quitted ARVs due to their side effects, had they not been educated about them. Badon and Sawumi, (2011) reported that 82.3%of the study subjects reported that they were happy to take ARVs correctly because they did not

want to infect their unborn infants. Infants whose mothers did not take ARVs during pregnancy have a risk of 60% being infected during perinatal and labour. (WHO 2012) USAID (2011), reported that taking of ARVs correctly was related to positive pregnancy practices outcomes among 84.7% of study subjects an effect of ARVs in pregnancy.

Adherence

Adherence is a voluntary commitment made by an individual to adhere to be loyal to, and to follow based on understanding of the information given to her (USAIDS, 2012).

Adherence is following the instructions and treatment protocols of the PMTCT regimen under limited supervision, (WHO 2010). Zimbabwe declares 95% ARVs adherence as acceptable to sustain a low vital load. A descriptive co-relational study by Chikonde et al, (2009), relates that lack of disclosure of HIV status to male partners resulted in poor adherence in 69% of the study subjects. In another study an adherence to PMTCT by Mucheudzi (2009) revealed that the family was infect the source of a problem, in 78% of the study subjects, and thus contributed to negative outcomes such as non-adherence and violence. Chikonde et al (2010) in a study on adherence in Kadoma Girls Health Clinics revealed that 80% of the study subjects had low level of adherence in ARVs and thus contributed to increased rates of vertical HIV transmission.

In another study on adherence by UNAIDS (2010) in Zimbabwe, revealed that91.3% of the study subjects disclosed their HIV results to someone, 66% to their husbands, and of these 83.5% adhered to ARVs regimen. In the same study 26.3% of these subjects used condom correctly and consistently.

A randomised study on adherence by Jimbe (2011) sound that the study subjects who received intensive adherence counselling was 29% less likely to have poor adherence.

Ugandian study by Castrol et al (2011) on ARV adherence sound that community support encourages HIV positive pregnant women to adhere to their medications.

A South African study by Collins 2011, sound community base adherence to be crucial in ensuring the HIV positive pregnant women remain in care, regular, picked their treatment and retained low viral loads.

In a study in Kenya by Achesan (2011) revealed that the use of messages to remind the HIV positive pregnant women to take ARVs proved to be effective in 80% of the study subjects.

In Zimbabwean rural, a study by Chikonde et al, (2011), revealed that good assistance was associated with improved clinic attendance and adherence to ARVs.
In another study on prevention of mother to child transmission, by Carriers et al, (2011) recognized that family support played an important role in adherence. According to Muko, et al, (2010), non adherence is associated with lack of support from male partners. In another important finding by ZMMOHCW, (2010), 86% of the study subjects disclosed that HIV status to their husbands and loved ones and this resulted in adherence to PMTCT.

Exercises: Practices

Many pregnant HIV positive women are concerned about moderating their activities. The health care Nursing Journal Vol. 1 of 2010 reported that importance of exercising was involved in regular routines. Walking was the most reported activity. The

study subjects reported that exercises kept them in shape and reducing stress. In another study on quality life in HIV and pregnancy, 90% of the subjects reported enjoying swimming, pushups, sit ups and weight lifting, and this way correlated to physical fitness during pregnancy (Haywood and Brown, 2011).

A publication on women and AIDS (2010), states that 90% of the women maintain their usual daily domestic chores throughout pregnancy. Brisk walking, attending sport groups or outdoor light activities are good throughout pregnancy, and these were appreciated with physical fitness in HIV (Silverbearg 2009). In a group discussion, during a study on HIV antenatal self care by Kao (2010), many pregnant women showed concern in moderating their daily activities. They continue to work and sometimes even harder during pregnancy. Strength activities such as gardening, cleaning, washing and cooking for the family are unavoidable chores, and 95% of the study subjects reported doing them during and through at pregnancy (Kao, 2010). Vigorous activities are possible if not overdone, and if done cautiously, avoiding injury to the abdomen are good for the pregnant woman embryo to the second trimester, (Lanolin, 2009).

Tobacco Smoking

Although some women stop or reduce smoking during pregnancy, a significant proportion continues to smoke throughout pregnancy (Koran et al 2010). In a study by Kwambana on smoking in HIV and pregnancy, (2010) findings relate that 9.2% of the study subjects could smoke and they failed to stop smoking during pregnancy even though they hold knowledge of dangers of smoking, this resulted in the giving birth to low birth weight infants.

A study by Ackey et al (2011) revealed that nicotine competes with hemoglobin on binding sites; therefore smoking 7 to 10 cigarettes per day reduces circulating fatal oxygen, and resulted in 67% of study subjects having episodes of fetal distresses. (Vignes2010). A study by Chez, (2010), also stated that nicotine hardens the walls of blood vessels, decreasing their contractility, leading to decreased viscosity and increased risks to embolic diseases.

Alcohol consumption practices

A study on alcoholism in HIV and pregnancy, Vignes (2010), reported that 84 % of the study subjects who had difficulties in giving up drinking, reported gradually cutting down on alcohol consumption as effective and realistic. In a study carried out in Zimbabwe by Kwambana (2010) findings reviewed that 17.2% of study subjects took alcohol in pregnancy and 28% of these had fetus with fetal alcohol syndromes, while 2% aborted. This denotes that alcohol and is a potential risks in pregnancy in Zimbabwe, and mothers should be taught on how to avoid taking alcohol in pregnancy. The midwives should routinely screen for levels of alcohol use among pregnant mothers. Because safe intake levels have not been established, the safest practice is to abstain from all alcohol use during pregnancy. (Miles 2010).

HIV Antenatal Self Care Knowledge

Knowledge

Knowledge is a body of information acquired through learning (Oxford dictionary 2000). It is familiarized, awareness or understanding acquired through experience or learning (Lippincott et al 2010).

HIV Antenatal Self Care Knowledge

Is a body of information acquired in guiding HIV antenatal self care practices of HIV positive pregnant mothers during antenatal and throughout labour (Dean, 2011). In the study the HIV positive mothers will use HIV antenatal knowledge in guiding the performances of HIV antenatal self care practices.

Antenatal care is basic essential care given to a pregnant woman during pregnancy and throughout labour (Falowe, 2010). WHO, (2011), antenatal focused model segregates pregnant women into those eligible to receive routine basic component with four to six visits. Those who need special care based on specific conditions or risks which usually consist of 28% of all booked pregnancies in a given setting. The new model emphasizes quality of care rather than quantity.

Essential interventions in antenatal include early identification and management of obstetrical complications such as pre-edampsia, tetanus toxoid immunisation, and intermittent preventive treatment for malaria in pregnancy. Screening for infections such as STI's, especially HIV, syphilis, genital sores which would cause ascending infections to the uterus, resulting in vertical HIV transmission (Lincetto Zolo, 2010) maternal nutritional status, anaemia, weight gains and information gaps are also identified and managed during ANC. In the study literature will be reviewed on HIV Antenatal Self Care knowledge on ANC Nutrition, ARVs, Adherence, Hygiene, Exercises, tobacco smoking and alcohol.

HIV transmission in Zimbabwe is 60% during antenatal and labour and 40% during breastfeeding without any interventions more than half of the children born to HIV infected mothers get invitro, during labour and during breastfeeding, (WHO 2011).

This prompted the investigator to examine the relationship between HV antenatal self care knowledge in relation to HIV antenatal self care practices of HIV positive pregnant women at Chinhoyi Provincial Hospital.

In a study by Omwalosin, (2011), antenatal self care in HIV, related that 62% of the study subjects could relate the services they received after early initiation of antenatal as associated to benefits of HIV antenatal self care knowledge they had. Such services included malaria prophylaxis correction of anaemia, elimination of hookworms, screening and treatment of sexually transmitted diseases. In a cross sectional study by Mastard and Roos, (2010), to explore the pregnant women with prior and current obstetrical medical conditions, knowledge on antenatal self care led to early bookings. In another study by Ngoma and Chimuka, (2010) on HIV in pregnancy, cited that 74% of the study could define antenatal care in their own understanding, due to the HIV antenatal knowledge, 92% of these subjects booked late regardless of the knowledge they had, hence the need for knowledge reemphasis.

Within the context of focused antenatal care, HIV antenatal self care knowledge is viewed as the translation of HIV positive antenatal population in health development (WHO, 2012). To elicit active community participation, the community, with emphasis on HIV positive women has to be empowered (Excellent HIV and AIDS Education, 2011). Information is an important component to empower pregnant HIV positive women to make informed choices and decisions. Access to knowledge, quality of knowledge and skill in interpreting and applying knowledge are key elements to HIV antenatal self care promotion process, (Deressa, 2012).

Nutrition:

The midwife should access and teach HIV positive pregnant women on nutritional risk on each visit (May 2010). Adequate antenatal care must include measurements and weights on each visit in HIV positive pregnant women, (May 2010). Appropriate weight gain during pregnancy should be 0.4kg per week in normal weight women, 0.5kg per week in low weight women and 0.3kg per week in overweight women, (May 2010). The total weight gain should be at least 12.5-18kg at term, (May 2010). Pregnant weight fetal growth rate and weight changes all reflect the woman's pattern of food and caloric intakes, and about 90% of the study subjects reported taking adequate nutrients daily during the study period after antenatal self care knowledge lessons (Dickens and Brown 2010). A study by Maternal and Child Health Daily Food Guide, (2010), reported that HIV positive women who took at least 90% of Required Daily Adult nutrition were healthy throughout pregnancy (DAN, 2010). In another study, by Amaga and Tamayo, (2010), on Nutrition during pregnancy, related that HIV positive pregnancy women, who took adequate proteins per day, had fewer episodes of low birth weights infants. In another study on nutrition in pregnancy by Tinkel et al, (2010), reported that HIV positive women who took at least 1 700-3000 calories per day, where not associated who low birth weight in uninfected infants (May 2010). They also published that bread, cereals and grains are rich sources of fibre, vitamin B_{12}, foliate, magnesium and zinc and 84% of the HIV positive pregnant woman reported to take four to five servings a day, had no episodes of malnutrition during pregnancy.

Bernhardt, (2010), in his study on maternal and instant nutrition, reported that, HIV positive women described "Proteins as building blocks of the body for HIV positive

women's own tissues as well as those of the fetus, this knowledge was associated with good eating habits among these women.

In the study the midwives are encouraged to construct Daily Pregnancy Food Group Guide for HIV positive pregnant women. The pregnant HIV positive woman is guided to identify appropriate dietary choices to best meet her caloric, protein, vitamin and mineral needs during pregnancy, (May 2010). Nutritional requirements are taught in terms of meals rather than nutrients, in order to accomplish required nutritional needs of individuals during pregnancy, (May 2010). Tinkel et al, (2010), related in their study that intake of a well balanced diet was associated with healthy pregnancy outcomes.

In this study there is need to identify cultural patterns that guide daily dietary profiles of HIV positive pregnant women and construct appropriate dietary meals for the women.

Antiretroviral Drugs (ARVs) Knowledge

ARVs are medicines that fight HIV in one's body and help one live longer healthier life, (USAID 2011). They do not cure HIV and AIDS but they reduce the amount of HIV in one's blood, as a result the immune system gets stronger, the body can fight disease better (Southern African HIV and AIDS Information Dissemination Services 2010), (SAFAIDS).

Many HIV infected pregnant women do not have advanced diseases so are not medically eligible for ARVs for life. Pregnant people with advanced HIV disease require ARVs and other relevant care, (WHO 2011). ARVs during pregnancy will improve the health of the women and is the most effective intervention for decreasing the risk of transmission of HIV to the infant (CDC 2011).

The eligibility criteria in Zimbabwe according to WHO 2011 is clinical stages 1 and 2, where CD4 cell count is not available, is initiating the woman on ARVs prophylaxis. Clinical stages 3 and 4 with CD4 cell count not available, or CD4 of ≤ 350 cells/mm^3**,** the woman is commenced on ARVs for life.

ARVs regimen for HIV positive mother during pregnancy according to WHO, (2012), guidelines, are Tenofovir 300mg plus Lamivudine 300mg plus nevirapine 200mg one daily for two weeks, then 12 hourly daily for life. Alternative therapy is zidovudine 300mg lamivudine 150mg and neverapine 200g once daily for two weeks, and then 12 hourly for life. There is a risk vertical transmission of HIV of 10-20% with implementation of single dose nevirapine, 1-5% with combination of Zidivudine and Niverapine, and <1-3% with implementation of triple therapy in pregnancy, (WHO 2012), hence the need for ARVs therapy. Commenting in a discussed on ARVs in study by USAIDS (2012), a woman described ARVs as "coming back to life drugs" and further related ARVs as associated to death elimination. In another study by Downey and Lloyd (2012) 80% of the study subjects who had knowledge on ARV's took them correctly and consistency.

Adherence

Adherence is a voluntary commitment made by an individual to adhere to be loyal to, and to follow based on understanding of the information given to her (USAIDS, 2012).

Adherence prevents treatment failure and treatment failure means resistance has already developed. Resistance is irreversible, once it has stored it cannot be minimized by

any medicine, and it cannot be self when it is developing, it is a silent side effect (USAID, 2011).

HIV positive women need adherence counseling through asking, advising, assisting and arranging for ARV initiation (USAIDS, 2011). The subjects who got at least 3 to 4 counseling sessions before they started taking ARVs, adhered to treatment, (AIDS and TB Unit, 2011).

For women on ARVs with nevirapine, containing regimen, it is important to maintain >95% adherence as this an unforgiving drug (WHO 2011). Disclosure to a person close to the women is very important, since she will be taking ARVs for a long period or for her life, 95% of the study subjects who adhered had disclosed. Good client education on ARVs combinations, importance and benefits of adherence, possible side effects and development of resistance due to poor adherence was over emphasized this led to 89.4% adherence in the study subjects, (Melgud et al, 2010)

Exercise: Knowledge

Pregnancy is a normal physiologic event and should not require an HIV positive woman to alter her life style drastically (McNicol, 2010), however most women and their partners wonder whether they can continue their usual activities during pregnancy, (Fletcher, 2010). It is safe for a pregnant HIV positive woman to continue her usual activities, unless informed of a specific medical contraindication, (Chez, 2010). Modifications may be necessary as the weight of a growing uterus decreases endurance and alters balance (Chez, 2010). For example pregnant women should decrease their loads, speed of running or heights of jumping in the 3rd Trimester, (Esantis and Sindour, 2010).

Exercises carry benefits and risks for all individuals, but there are special considerations for HIV positive pregnant woman, (Chez, 2010). The benefits of exercises include improved fitness and muscle tone, improved sleep, less constipation, increased energy and a general improvement in the HIV positive pregnant women's general self image (Tinkle et al, 2010).

In a study by Hardersbeck (2010), a exercise I pregnancy and HIV relates that women who have been used regular exercises before pregnancy were encouraged to carry on, but those used to sedentary life were encouraged to engage in mild regular exercises during pregnancy, (Hadersbeck, 2010).

Midwives should always discuss exercise programmes with the HIV positive pregnant women addressing conditions such as anaemia, heart and respiration diseases, hypertension or complications with prior pregnancies, as a way of increasing their knowledge, Tinkel et al, (2010) related that all study subjects were encouraged to monitor their own heart rates during exercise by use of simple exercise "talk test". If a woman cannot exercise and talk simultaneously, she is approaching a compromised respiratory heart rate and was advised to stop Homer, James and Siegel, (2010). Advised all of their HIV positive women in having pyrexial, or if it was very hot, that they should not exercise because hyperthermia has been associated with increased risk of fetal abnormalities. HIV positive women with anaemia, multiple pregnancy, hypertension or history of preterm labour were not encouraged to engage in moderate exercises, due to the nature of their conditions (Tinkete et al, 2010).

HIV positive pregnant women educated to exercise for at least 30 minutes, three times per week, as long as they were fit, (Chez, 2010).

A study by May (2010) on HIV antenatal self care knowledge, educated that 97% of the study subjects had less knowledge o the benefits of exercises in pregnancy and of these 48% were not exercising regularly. Dickens, (2011), related that lack of exercises in 28% of study subjects during antenatal resulted in prolonged labour.

Smoking Tobacco

Smoking is associated with increased early spontaneous abortions and placental complications such as miscarriage, abruption, sudden infant death syndrome, growth restriction, low birth weight pre-term labour and long term behavioral and psychiatric disorders, (Shea and Steiner 2010).

I a study by Schnesher et al, (2010), an HIV pregnancy, findings show that 97% of the study subjects could not relate the dangers of the nicotine in pregnancy and hence only 32% of the women quitted smoking. In a study by CDC, (2011) in Zimbabwe on tobacco smoking, 33% of the HIV pregnant women who smoked lack knowledge on effects of tobacco on the fetus, hence 18% refused to quit smoking.

Nicotine and carbon monoxide are vasocentriders and affect blood flow to placental and fatal tissues, (Haustein 2009). Nicotine can increase maternal blood pressure, heart rate and compromise uterine blood flow, (Schneider et al 2009). Carbon monoxide bids to carbon hemoglobin causing fatal hypoxia or sudden infant death syndrome, (Haustein 2010). Cigarette smoke contains lead, calcium and mirocyanate which are hazardous to foetus (Cogswell et al 2010).

Smoking affects absorptic of micronutrients and increases nutrients utilization (Cogswell et al 2010) related that 96% of study subjects who failed to stop smoking resulting in giving birth to low birth weight infants. Smoking decreases appetite and good

consumption, thereby increasing maternal micronutrient requirements, and this resulted in 64% of the study subjects receiving supplementary foods during pregnancy (Levine and Marus 2010). In the study mothers are going to be educated on above factors advised on stopping smoking.

Alcohol consumption

A study by Dickens and Brown, (2011) on self identification of risk for HIV and AIDS in pregnant women, postulated that, alcohol has been shown to be teratogenic in human. They went further to inform that fetal alcohol syndrome is characterized by craniofacial abnormalities delayed molar development, low birth weight and smallness for dates and mental retardation. There is evidence that women who drink large amounts of alcohol five or more drinks per day regularly place their unborn fetus at increased risk for fetal alcohol syndrome, (May 2010). In a related study by WHO, (2010), knowledge on alcohol in HIV positive pregnant mothers were associated with high rates of mental retardation in children born to alcoholic mothers. In another study by Gupter et al, (2010), an HIV and drugs in pregnancy, 7% of the study subjects who lacked knowledge continued drinking throughout pregnancy.

Theoretical Framework

Theoretical framework is an overall under pining of a study (Polite and Beck, 2008). It is an abstract logical structure that guides the development of a study and enables the investigator to link study findings to nursing's body of knowledge (Burn & Groove, 2010). The theory of self care deficit by Orem (2010) was chosen to guide this study because it provides a pattern of proper nursing reasoning that links acquired HIV antenatal self care knowledge to HIV antenatal self care practices of the HIV positive pregnant women. Orem (2010) self care deficit theory focuses on a person's capabilities and limitations for self care. In the study, the level of HIV antenatal self care knowledge is the independent variable and the nature of HIV antenatal self care practice the dependent variable. It is assumed that the level of HIV antenatal self care knowledge will help HIV positive women acquire the modified nature of HIV antenatal self care practices that may result in positive pregnancy out comes.

Self care deficit

Self care deficit is when therapeutic self care demands exceed, self care agency (Orem 2010). In this study self care deficit is the HIV antenatal self care knowledge deficit. The self care agency is the HIV positive pregnant woman's acquired powers and capabilities to engage in HIV antenatal self care practices. Self care, therapeutic self care demands are the total care activities needed either at an identified moment or over a period of time to meet the self care agent's own requirements for self care (Orem 2010). It is modeled on deliberate actions performed by self care agent to benefit themselves (Orem 2010).

Self care agent who in the study is the HIV positive pregnant woman with HIV antenatal self care knowledge deficit, will acquire capabilities and powers through learning and utilize them towards meeting identified therapeutic demands in nutrition ARVs, hygiene, exercises and adherence in order to achieve a positive pregnancy outcome.

Self care

Self care is the performance or practice of activities that individuals initiate and perform on their own behalf to maintain life health and well being (Orem, 2010). Self care practices constitute 65% of fatal health care demands of an individual and 35% of professional medical health demands (Dean 2011). In this study self care will be measured on how best the HIV positive pregnant women will model their antenatal self care practices in response to HIV antenatal self care knowledge input. It is assumed that if the HIV positive women have the essential and adequate HIV antenatal self care knowledge, they will adapt safe HIV antenatal safe care practices. These include good nutrition, taking of ARVs properly and adhering to therapy, exercising and resting adequately and quitting unsafe life styles, such as alcohol consumption or smoking to improve pregnancy outcomes. A well informed mother has a capacity to segregate conditions that need personal remedies from those which require professional medical intervention.

Nursing systems

Segregated into wholly, partly compensatory and supportive educative systems,(Orem, 2010). The nursing systems are designed by nurses based on assessment of the individuals self care needs (Orem 2010). In this study the acquired HIV antenatal

self care knowledge will guide the HIV positive pregnant women to carry out new and complex measures, particularly those that require specialized knowledge successfully in their day to day HIV self care practices. The acquired knowledge will help individuals maintain activities that help in suppression of HIV progression and minimize the risk of vertical transmission. The above information supports the need to examine the relationship between HIV antenatal self care knowledge and HIV antenatal self care practices.

In this study of Orem's concepts used were nursing systems, self care deficit and self care. The HIV positive women take of HIV antenatal self care knowledge was found to be the self care deficit. The prevention of mother to child transmission of HIV, through good HIV antenatal self care practices in the self care, and the self care agency is the application of learned self care during supportive educative sessions (nursing systems). Orem's self care theory was used in a study by Kheinnan, (2011), on the development of instrument and the measurement of self care practices, on self care agency. Study findings reviewed that 84% of the antenatal self care practices of study subjects were influenced by acquired antenatal knowledge. In another study by Dickens et al, (2011), an instrument measuring effects of exercises on study subjects was developed using Orem's self care model. The study findings revealed that labour progress was normal in 58% of the subjects, and 40% of the study subjects had shorter labour duration while the rest opted for Caesarian births.

The model has also been applied in a study of diabetes management in pregnancy by Dennis et al (2011) and it was found to be one of the most effective models in control of the diseases during pregnancy. In a study of post caesarian section self care in

Thailand, by Chiang (2009) results show 80% of the subjects who used self care model through nurse patient interactions, experienced less pain than those who did not use the self care model. These also used less analgesias than their counterparts, ambulated more and hard fewer complications.

May and Gallid (2011) used the model of self care on prevention of mother to child transmission of HIV during the perinatal period and results showed 92% prevention of vertical transmission Dickens et al, (2010), reported 97% adherence rate of ARVs among women who used to self care model. In a study by Katja et al, (2010), hypertensive patients who used the self care model, acquired knowledge played a vital role in behavior modifications in 67.6% subjects. Mock et al (2010) found the self care model to be an effective guide in designing an educational program.

In the study the aim is to give HIV antenatal self care knowledge that will guide their HIV antenatal self care practices, in antenatal bookings, nutrition ARVs taking and adherence, personal hygiene and exercises. The model will focus on the HIV pregnant women's capabilities to perform self care (Orem 2010) self care is regarded to the ability to maintain a good oriented HIV antenatal self care what is acquired through HIV antenatal self care knowledge. Therefore self care agency is the ability of HIV positive pregnant women to perform the expected HIV antenatal self care practices.

Summary

This chapter reviewed literature on the level of HIV antenatal self care practices which is the dependent variable and the nature of HIV antenatal self care knowledge which is the independent variable. Orem's (2010) self care deficit model guided the study. It is anticipated that the more the HIV antenatal self care knowledge the safer the HIV antenatal self care practices by HIV positive pregnant women. They will adopt safe life styles, good nutrition, adequate exercises and rest, correct intake of ARVs and adherence as well as good personal hygiene. These will lead to a reduction in PMTCT. Orem's model has been used in previous co-relational studies to establish the relationship between two variables.

CHAPTER THREE

METHODOLOGY

A research methodology is a technique used to structure a study and to gather and analyze information in a systematic fashion, (Polit & Beck 2009). This chapter included: design, sampling plan, sampling method and size, instrument, study variables, sampling procedure, data collection and analysis and human rights consideration.

Design

A research design is the overall plan for addressing a research question, including specifications for enhancing the study and integrity (Polit & Beck 2009). In this study a descriptive correlational study design is going to be used. The intent of this design is to examine the relationship among variables of interest without any active intervention by the investigator (Polit & Beck 2009). The design offers an understanding in relationships among variables that is a tendency for variation in one variable to be related to variation in another, (Desmond & Cormark, 2009). The same authors also state that descriptive research studies have as their main objective the accurate portrayal of the characteristics of persons, situations or groups or the frequency with which certain phenomena occur. They also contain descriptive statistic used to describe and summarize data, such as mean and standard deviations.

Therefore the investigator selected the design to examine the relationship between the two variables, the nature of HIV antenatal self care practices (DV) and the level of HIV antenatal self care knowledge (IV).

They offered increased flexibility during investigation of complex or simple variables. They also offered effective and flexible method of data collection when the investigator is collecting large amounts of data regarding the problem area, (Polit & Beck 2009). Descriptive correlation research is often strong in realism and therefore has an intrinsic appeal for solving practical problems, (Polit & Beck 2009). Descriptive co-relational research is most frequently used in nursing, medical and social science researches precisely because many interesting problems in those fields are not amenable to experimentation (Burghan 2009).

The investigator chose this design because it facilitates description of the two study variables and also allows examination of the relationships between the two study variables.

Study setting

Chinhoyi provincial Hospital was chosen as a study site by the investigator. It was considered appropriate because it is a referral centre for Mashonaland West Province and it is also a multidisciplinary training hospital which offers training for general nurses, people midwives, and radiographer and studio doctors. It saves an average of 250 to 300 HIV positive pregnant women per month ad this provides an opportunity for the investigator to access the targeted population of interest without difficulties. Chinhoyi has a family health care centre that operates from 0800hrs to 1600hrs. It has an Opportunistic Infection Clinic that caters for all HIV positive pregnant women on daily basis ad has a resident doctor who attends to them every day from 1000hrs to 1600hrs, thereby making it an ideal site for the study.

Sampling Plan

A sampling plan is a tool that describes the strategies that will be used to obtain a sample for a study (Burns & Groves 2009). (Polit and Beck 2009) states that it is a formal plan specifying a sampling method, sample size, and procedures used for recruiting subjects. The plan includes the selection of a sampling method, the specification of the sample size and procedure for recruiting subjects.

Sample Size

A sample is a subset of the population that is selected for a particular study, and sampling is the process for selecting a group of people, events, behaviour or other elements with which to conduct a study, (Hulme & Grove, 2009). Generally the larger the sample, the more representative of the population it is likely to be and the smaller the sampling error (Polit & Beck 2009). Currently the deciding factor in determining an adequate sample size is power. Power is the capacity of the study to detect differences or relationships that actively exist in the population, (Burns & Groove 2009). Power is the capacity to correctly reject a null hypothesis. The minimum accepted power for a study is 0.80 (80%), (Polit & Beck 2009). Power analysis is performed to obtain sufficient power of the sample size needed, (Beck 2009). The study used power analysis for sample size determination. Power analysis consists of desired significance level, which specified the probability that type I error will occur. The study sample size was determined by performing power analysis guided by effect size of 0.05, power 0.80, significance level of 0.05 and power calculation chart by Lipsey and Mark (1990) to reach a minimum sample size of 65 subjects, and an additional 15 subjects to reach a total of 80 subjects. The 15 subjects were added to cater for a possible attrition during data collection.

Effect size is the presence of a phenomenon, or the extent of the presence of a phenomenon in a population (Burns & Grove 2009). A small effect size would be <0.3, medium effect size would be 0.5 and a large effect size would be >0.5. Knowing the effect size that would be regarded as clinically important allows us to select a needed sample size that detects significant effect size to alter clinical decisions, (Knaemer & Thiemann 2010). In this study an effect size of 0.5 was selected. Significance level is a deterring factor of sample size. Significance level is preventing a type I error. The more stringent the significance level, such as 0.001 versus 0.05 the greater the necessary sample size, (Burns & Grove, 2009). A significance level of 0.05 will be used in the study to determine if a relationship does not exist between HIV antenatal self care knowledge and antenatal self care practices of HIV positive pregnant women.

Sampling Procedure

The investigator chose the most basic type of probability sampling, the simple random; where in a sampling frame is created by enumerating all members of a population from the ANC register. Then select a sample from the sampling frame through completely random procedure, that involves use of small hardboard disks written No and Yes and put inside a small box with a hallow that would fit in a palm. The disks are shaken randomly and each selected prospective subject is asked to randomly pick a disk, and if she picks a "Yes" she qualifies and if No she does not. A disk is replaced each time it is picked and the box shaken before another pick.

The procedure allows every member of the selected population to have a probability greater than zero of being selected for the sample. The selected subjects will be both the target and accessible population of the HIV positive pregnant women aged

18-40 years attending antenatal clinics at the Family Health Care Centre at Chinhoyi Provincial Hospital.

The probability random sampling method was utilized because it offers random sampling techniques in which every member of the population holds an equal independent opportunity of being selected for the sample. (Polit & Beck, 2009). This method offers an opportunity to ensure some degree of precision, in accurately estimating the population parameters of HIV positive pregnant women's HIV antenatal self care practices and therefore reducing sampling error. There is also less chances of committing systematic bias if simple random selection is instituted. Random sample selection is more representative of the population, which has variations in age, education cultural values or socio-economic factors, but all practice HIV antenatal self care, and have a chance to be represented.

Target Population

The targeted population is the HIV positive pregnant women aged 18-40 years on attending antenatal clinics at the Family Health Care Centre, Opportunistic Infections clinics (OIC) or referrals from districts or clinics.

The Accessible Population

The accessible population is the total daily attendance of HIV positive pregnant women aged 18-40 years, who report for follow ups, resupplies or treatments for opportunistic infections at Chinhoyi Family Health Care centre from Mondays to Fridays from 0800hrs to 1600hrs.

The investigator chose the probability sampling method precisely. The simple random type, wherein a sampling frame is created by enumerating all members of a population, and selecting a sample from it through complete random procedure. (Polit & Beck 2008). The probability random sampling ensures some degree of precision in accurately estimating the population parameters and every member has a probability of an equal and independent chance of being selected for the sample. The method also yields more representative samples than other designed and permits estimates of the magnitude of the sampling error. The method was also used because inferential statistics are based on the assumption that the sample from which data is derived has been obtained randomly (Burns & Grove, 2008).

The investigator used Pearson's product Moment Correlation Coefficient (r) to determine the relationship between antenatal self care knowledge and antenatal self care practices of HIV positive pregnant women aged 18-40 years at Chinhoyi Provincial Hospital. Correlation coefficient is an index summarizing the degree of relationships between variables typically ranging from +1.00 (for a perfect positive relationship through 0.0 (for no relationship) to -1.00 (for a perfect negative relationship). (Polit & Beck 2009). In case of a positive relationship a regression analysis for predicting values of the dependent variable statistically based on the values of one or more independent variables (Desmond & Cormarks 2009) would be performed.

Inclusion Criteria

Inclusion criteria were to designate the specific attributes of the target population and by which people are selected for participation in a study (Polit & Beck 2008). In the study the investigator used the inclusion criteria of HIV positive pregnant women aged

18-40 years, capable of speaking Shona ad English, married or cohabiting with a basic educational level of grade seven and above well and willing to participate in the study. The subjects were derived from HIV positive antenatal women attending clinics at Chinhoyi provincial Hospital Family Health care department from Mondays to Fridays during the data collection period.

Exclusion Criteria

Exclusion criteria specify characteristics that a population does not have (Polit & Beck 2009). The investigator excluded all subjects who were unable to communicate in Shona or English. All subjects who were not able to speak Shona or English were eliminated since the investigator is able to communicate in Shona and English only. Those who were under the age of 18 and over 40 years were excluded because they did not have competence to give informed consents. Finally the mentally or emotionally disabled were excluded because was not possible for them to weigh the risks and benefits of participating in the study and making informed decisions.

Variables

Conceptual Definitions

Variables are qualities, properties, or characteristics of persons, things or situations that change or vary and are manipulated measured or controlled in research (Burns & Grove, 2009). An operational definition is the description of how variables or concepts will be measured or manipulated in a study. (Polit & Beck, 2009). The variables of the study are the nature of HIV antenatal self care practice as the dependent variable and the level of HIV antenatal self care knowledge as the independent variable.

HIV Antenatal self care practices

The dependent variable of the study is the nature of HIV Antenatal Self Care practices. They are the performance or practices of activities that individuals initiate and perform on their behalf to maintain life, health and well-being. (Orem, 2010). A questionnaire will be used to measure the nature of HIV Antenatal Self Care practices of the subjects.

HIV Antenatal self care knowledge

The independent variable of the study is HIV Antenatal Self Care knowledge. It is the body of acquired information which guide the performance or practice of activities that individuals initiate on their own behalf to maintain life, health and well-being during pregnancy and through labour (Acheson, 2009). The HIV atenatal self care knowledge questionnaire will be used to measure HIV Antenatal Self Care knowledge of the study subjects.

HIV Antenatal self care practices interview schedule

The interview schedule is examining HIV antenatal self care practices of HIV positive pregnant women. It inquires on antenatal early booking, nutrition, ARVS, adherence, exercises and rest as well as alcohol consumption and smoking. The nature of self care practices will be measured by the score based on good HIV antenatal self care practices during pregnancy. A total mark of 64 will be allocated to the whole schedule.

HIV Antenatal self care knowledge interview schedule

The interview schedule solicited information on the level of HIV antenatal self care knowledge of:- ANC early booking, nutrition, ARVs, adherence, exercises and rest as well as alcohol consumption and smoking. The value of the scores will range from 0

for a perfect negative and a 4 for a perfect positive response. Most questions were provided with five options and subjects who score more points were considered knowledgeable. A total of 64 marks were allocated to the whole schedule. The dichotomous questions carried a mark value of 0 for a negative and a 1 for a positive.

Demographic Variables

The demographic variables describe the characteristics or attributes of the sample. The attributes include age, marital status, employment status, income, level of education, parity and religion. Additional information includes who the subjects stayed with and to who they had disclosed their HIV statuses.

Instrument

An instrument is a device used to collect data, by a questionnaire, test observation schedule etc (Polit & beck 2009). The investigator used an interview schedule which was answered in a specified sequence and with predesignated response options such as strongly disagree (SD), disagree (D), uncertain (U), strongly agree (SA), agree (A). A structured interview indicates strategies that provide increasing amounts of control by the investigator over the content of the interview (Desmond & Cormark 2009). A face to face interview schedule was used and it provided the investigator with opportunities to solicit more information through the respondents' incidental comments, facial and body expressions and voice tonnage. It also offered the investigator chances for verification of some questions since subjects hold different levels of education. The interview schedule consisted of Appendix A which has the demographic data interview, Appendix B, the nature of HIV antenatal self care practices and Appendix C, the level of HIV antenatal

self care knowledge interview. The structured interview has been translated in Shona, since it is the vernacular language of the study sample.

HIV antenatal Self Care Practices Interview

Appendix B inquired on the nature of HIV antenatal self care practices and marks ranged from 0 for a perfect negative to 4 for a perfect positive answer. Items 13 addressed early ANC booking, 14 to18 on nutrition. Items 19 inquired on ARVs and 20 on adherence. Item 21 to 23 inquired on disclosure while items 22 and 23 enquired on exercises, alcohol consumption and items 24 to 25 Tobacco smoking. A total mark of 64 marks were allocated to this section.

HIV Antenatal self care knowledge Interview

Appendix C addressed the level of HIV antenatal self care knowledge for the study subjects. The marks ranged from a 0 for a perfect negative and 4 for a perfect positive. Items 29 addressed early ANC booking, 30 to 34 on nutrition. Items 35 inquired on ARVs and 36 on adherence. Item 37 addressed on disclosure while 38 and 39 enquired on exercises and rest. Item 40 and 41 enquired on alcohol consumption while 41 on tobacco smoking. Safe sex was covered by items 42. A total mark of 64 were allocated to this section.

Demographic Data Interview

Demographic variables are characteristics or attributes of the subjects that are collected to describe the sample (Burns & Grove, 2009). The interview schedule consisted of 12 items of demographic attributes such as age, marital status, level of education, religion, occupation, income, area of residence, income, parity of the subjects. The relationship between the level of HIV antenatal self care knowledge and the nature of

HIV antenatal self care practices was analyzed using inferential, co relational statistics and regression analysis and there was a significant correlation. Inferential statistics that permit one to infer or generalize whether the relationship is observed in a sample are likely to occur in a larger population of concern. Data was presented by use of statistics.

Reliability

Reliability refers to the degree of consistency with which an instrument measures the attribute supposed to be measured (Polit & Beck, 2009). Reliability is considered a measure of the amount of random error in the measurement technique and is concerned with such characteristics is dependability, consistent, accuracy and compatibility, (Burns & Groove 2009). Reliability testing was done on the instrument prior to conducting the study. This was done through a Pilot study which enabled identification of any parts of the research instruments found lacking. The questions were modified or omitted as necessary.

Validity

Validity refers to the degree, to which an instrument measures what is supposed to be measured, (Poilit & Beck 2009). Desmond and Comarck 2009) describes four types of validity being statistical validity, external validity, construct validity and internal validity. In this study construct validity of the questions were examined by fitness between conceptual definitions and operational definitions, (Polit & Beck, 2009). Construct validity was assured by scrutiny, by supervisor and experts. The investigator was carried out a Pilot study to pretest the instrument and this helped to improve the content validity.

Pilot Study

A pilot study is a small scale version or trial run, done in preparation of a major study, (Polit and Beck 2008). A pilot study was performed, to pretest the questionnaire, identify pitfalls and shortcomings that otherwise might not have been recognized during planning. It was performed to test for the feasibility of a larger study. It was done to assess its acceptability of the interventions to subjects, and staff, costs of interventions and if study can provide clues about the likely success of strengthening or modifying interventions. Then at last for ease on integrating study into clinical area. The study was evaluated by peers, other reviewers from Chinhoyi Hospital and local consultants. Corrections were carried out before the main project. A simple random sampling method will be used and a sample of five subjects were interviewed. The results of the pilot were analyzed.

Data Collection Plan

This is a formal procedure researchers develop to guide the collection of data in a standardized fashion in a study (Polit and Beck 2009). The plan involves identification and prioritization of all data needs, addressing study questions, describing the sample, control of extraneous variables, analyze bias and interpret results. The plan also includes considerations of all administrative requirements and costs.

Data Collection Procedure

Data are the pieces of information obtained in the course of a study (DeSantis & Ugamiza 2009). The investigator collected data by use of a structured interview schedule through face to face interviews. The routine is that all clients for antennal are asked to report as early as 0800hrs to 1000hrs. All cards are collected at 0900hrs and all late comers are attended to after all early comers.

After the collection of all cards the investigator used these to select the candidates who met the inclusion criteria and entered these into the ANC register. The chosen names were separated from the rest of the clients onto their own bench. A brief explanation of the study components were then given to these clients, and then permission to participate into the study sought. The simple random method of selecting subjects for that day was then conducted and five subjects out of 10 or 20 candidates were selected daily from Monday to Friday through the same procedure.

Interviews usually lasted for 20-25 minutes per subject and the whole process took six weeks.

Human Rights Considerations

Human rights involve the subject right to self-determination, freedom to control their own activities, including study participation. Respect to human dignity and the right to full disclosure (Polit & Beck 2008). The investigator sought permission to carry out the study from:- The Medical Research Council of Zimbabwe (MRCZ) College of Health Sciences, Department of Nursing Sciences, The Provincial Medical Director (Mash West), The District Medical Officer (Makonde District), The Medical Superintendent Chinhoyi Provincial Hospital, The Sister in Charge FHC department Chinhoyi Provincial

Hospital and the Consultant Physician OIC Chinhoyi Provincial Hospital. In addition all prospective subjects voluntarily signed consent forms before participating into the study. Full disclosure of the study components were done to the prospective subjects before signing the consent. They were informed that the results would be utilized to improve the management of HIV positive pregnant women.

The subjects were informed about the duration of interviews, i.e. 20-25 minutes each, the application and maintenance of justice throughout the study, that privacy was maintained through anonymity, such that not even the investigators did not know participants identities, through formal confidentiality procedures that safeguarded the information they provided e.g. (coding of names). Subjects were insured that they had a right to withdraw even after consenting, without risking penalty or prejudicial treatment from the investigator or staff members of FHC.

Data Analysis

This is a systematic organization and synthesis of research data and the testing of research hypothesis using those data, (Polit & Beck, 2009). The coded data was entered into a computer, and first cleaned up, by ensuring that data were consistent and accurate, before analysis. Analysis was performed by the computer using Statistical Package for the Social Science System and results print out was obtained.

Coding is the process of transforming raw data into standardized form for processing and analysis or the process of identifying recurring words, themes or concepts within data (Polit & Beck, 2009). Data was presented through inferential statistics, percentages ad tables and some data was presented in words.

CHAPTER 4

RESULTS

INTRODUCTION

This chapter presents and analyses findings of the study. Major findings are highlighted and narratives and tables were used to present findings with regard to variables, under study.

Summary

The purpose of the study was to examine the relationship between the level of HIV antenatal self care knowledge and the nature of HIV antenatal self care practices among HIV positive women aged 18 – 40 years at Chinhoyi Provincial Hospital.

The study sought to answer the following questions:

1. What is the nature of HIV antenatal self care practices among HIV pregnant positive women aged 18-40 years at Chinhoyi Provincial Hospital?
2. What is the level of HIV antenatal self care knowledge among HIV positive pregnant women aged 18-40 years at Chinhoyi Provincial Hospital?
3. What is the relationship between the level of HIV antenatal self care knowledge and the nature of HIV self care practices among HIV positive pregnant women aged 18-40 years at Chinhoyi Provincial Hospital?

Data analysis was done using the Statistical Package of Social Sciences (SPSS). Data was analyzed in three stages which were the demographic data,, the nature of HIV levels of HIV antenatal self care knowledge practices and the levels of HIV antenatal self care knowledge among HIV positive pregnant women.

The descriptive statistics such as frequencies, percentages, mean, mode and standard deviation were used to describe the demographic characteristics, the nature of HIV antenatal self care practices and the levels of HIV antenatal self care knowledge.

Pearson's correlation coefficient test was used to examine the relationship between the nature of HIV safe care practices and the levels of HIV antenatal self care knowledge. A significance level of $p = < .05$ was used for all statistical analyses although results were significant at $p = <.01$. The correlation test was significant but moderate $r=.252$, $p =.<.01$.

Simple regression analysis was done to examine the strength of the relationship between HIV self-care practices and the levels of HIV antenatal self care. The results show that the nature of HIV self-care practices in pregnancy account for 34% of the variance.

Sample Demographics

Table 1: shows demographic data of the study subjects which are age, marital status, education, employment and income. The age range was 12 years. The mean age was 15.265 years. The number of the respondents aged between 18-24 years was 56(70%) 25 to 30 years was 14(17.5%) 31 to 34 years was 6(7.5%) and 36 to 40years was 4(5%).

Table 1: further shows that 64 (80%) of the study subjects were married, and 16(20%) were cohabiting. Table 1 further shows that 26(32.5%) of the subjects were grade 7, 52(65%) had secondary levels education and 2(25%) were University graduates.

Table 1: further shows that 3(3.7%) of the study subjects were employed, and 2(2.5%) did self job and 75 (93,8%) of the subjects were unemployed. Among the

employed subjects 1 (1.25%) earned between US$50 to US$200.00 and 4(5%) earned US$300 – 600, and 75(93.8%) were not earning anything.

Table 1: shows that 24(30%) resided in the urban areas, 17(21.3%) in the semi urban, 3(3.7%) stayed in the plot, 22(27.5%) in the farms and 14(17.5%) in the communal areas.

Table 2: shows that 55(68.75%) stayed with their husbands, 5(6.25%) with their parents, 12(15%) with their in-laws and 8(10%) by themselves. Table 2, shows that 36(45%) were Pentecostals, 24 (30%) Catholics, 4(5%) Salvationist, 10(12.5) Adventists and 5(6.25%) Traditionalists and 1(1.25%) did not belong to any religion.

Table 3: shows that 22 (27.5%) were para Os, 39(48.75%) para ones and twos, 19(23.75%) were para three and above. Table 3 further shows that 5(6.20%) had a period of positivity which ranged from 0-1 month, 47(58.75%) 2-12 months, 18(22%), 13-30 months 8(10%) 31-40 months 2(3%) and none had a period of positivity above 60 months.

Table 1 Sample Demographics (1)
(N = 80)

Variable	Frequency	Percentage
1. Age		
18-24	56	70
25-30	14	17.5
31-34	6	7.5
35-40	4	5.0
2. Marital Status		
Married	64	80
Cohabiting	16	20
3. Educational Level		
Grade 7	26	32.5
Secondary	52	65
Tertiary	2	2.5
4. Occupation		
Employed	3	3.7
Self employed	2	2.5
Unemployed	75	93.8
5. Income	64	80
≥ US $50 - >50	10	12.5
50-200	6	7.5
300-600	0	
> 700		

Table 2: Sample Demographics (2)
(N = 80)

Variable	Frequency	Percentage
Residence		
Urban	24	30
Semi-Urban	17	21.3
Plot	3	3.7
Farm	22	27.5
Communal	14	17.5
Ownership		
Yes	37	46.3
No	43	53.7
Resides with		
Husband	55	68.75
Parents	5	6.25
In-laws	12	15
Friend	0	
Self	8	10
Religion		
Pentecostal	36	45
Catholic	24	30
Salvationist	4	5
Adventist	10	12.55
Traditionalist	5	6.25
None	1	1.25

Table 3: Sample Demographics (3)
(N = 80)

Variable	Frequency	Percentage
Parity		
0	22	27.5
1 – 2	39	48.75
> 3	19	23.75
Period of positivity		
0 – 1 Month	5	6.25
2 – 12 Months	47	58.75
13 – 30 Months	18	22
31 – 40 Months	8	10
41 – 60 Months	2	3
>60 Months	0	

The Nature of HIV Antenatal Practices

Table 4: displays the data of the dependent variable of the study which was the nature of HIV antenatal self care practices among HIV positive aged 18 to 40 years. The table shows that 48 (60%) of the study subjects booked their pregnancy between 3-4 months, 32 (40%) booked later than 3-4 months. The same table shows that 75 (94%) agreed to taking of meals at least three times a day, 1(1%) disagreed, and 3 (4%) uncertain of cooking three meals a day. The table shows that 19 (23.75%) of the study subjects agreed to taking of porridge with peanut butter, cooking oil or margarine every morning while 18(22.5%) disagreed and 443 (53.75%) were uncertain.

Table 5: shows on practices regarding taking of wholesome teas 31 (38.75%) agreed on taking of balanced meals, 6 (7.5%) disagreed, and 43 (53.75%) were uncertain. On the practice taking wholesome meals 16(20%) agreed, while 8 (10%) disagreed and 56 (70%) were uncertain. The table further shows that 28 (35%) study subjects agreed to taking a minimum of six glasses of water per day while 6 (7.5%) disagreed and 46 (57.5%) were uncertain.

Table 6: shows that 75 (93.75%) of study subjects agreed on taking ARVs correctly, 5 (6.25%) strongly agreed. Table 3: also shows that 69 (86.25%) of the subjects agreed to have disclosed their HIV status their sexual partners, and 11 (13.75%) disagreed. Regarding practices on exercises 7(8.75%) strongly agreed, 33 (41.25%) agreed on exercising at least 3 times a day and 40 (50%) disagreed.

Table 7 ; Six 6 (7.5 %) of the study subjects strongly agreed on resting at least 3-4 hrs a day and 35 (43.75%) agreed, 4 (5%) who disagreed and 35 (43.75%) were uncertain.

Table 4: Nature of HIV Antenatal self care practices (1)
(N = 80)

Variable	Frequency	Percentage
Recommended Booking Period		
Strongly agree	0	0
Agree	48	60
Strongly disagree	0	0
Disagree	32	40
Uncertain	0	0
Recommended number of meals per day.		
Strongly agree	1	1
Agree	75	94
Strongly disagree	0	
Disagree	1	1
Uncertain	3	4
Recommended wholesome porridge every morning		
Strongly agree	0	
Agree	19	23.75
Strongly disagree	0	
Disagree	18	22.50
Uncertain	43	53.75

Table 5: Nature of HIV Antenatal self care practices (2)
(N = 80)

Variable	Frequency	Percentage
Recommended wholesome teas		
Strongly agree	0	0
Agree	31	38.75
Strongly disagree	0	0
Disagree	6	7.5
Uncertain	43	53.75
Recommended wholesome meals		
Strongly agree	0	0
Agree	16	20
Strongly disagree	0	0
Disagree	8	10
Uncertain	56	70
Recommended amount drinking water		
Strongly agree	0	
Agree	28	35
Strongly disagree	0	0
Disagree	6	7.5
Uncertain	46	57.5

Table 6: Nature of HIV antenatal self care practices (3)
(N=80)

Variable	Frequency	Percentage
Self care practice regarding ARVs intake		
Strongly agree	5	6.25
Agree	75	93.75
Strongly disagree	0	0
Disagree	0	0
Uncertain	0	0
Self care practice regarding missing a dose		
Strongly agree	1	1.25
Agree	68	85
Strongly disagree	0	0
Disagree	11	13.75
Uncertain	0	0
Disclosure		
Strongly agree	7	8.75
Agree	33	41.25
Strongly disagree	0	0
Disagree	40	50
Uncertain	0	0
Recommended practices on exercises		
Strongly agree	7	8.75
Agree	33	41.25
Strongly disagree	0	0
Disagree	40	50
Uncertain	0	0

Table 7 Nature of self care practices (4)
(N=80)

Variable	Frequency	Percentage
Recommended 3-4 hrs resting time in pregnancy per day		
Strongly agree	6	7.5
Agree	35	43.75
Strongly disagree	0	0
Disagree	4	5
Uncertain	35	43.75
Self care practices on alcohol consumption		
Strongly agree	37	46.25
Agree	43	53.75
Strongly disagree	0	0
Disagree	0	0
Uncertain	0	0
Practices on stopping alcohol		
Strongly agree	0	0
Agree	80	100
Strongly disagree	0	0
Disagree	0	0
Uncertain	0	0

Table 7: shows that 37 (46.25%) of the study subjects strongly agreed on not taking alcohol and the remaining 43 (53.75%) agreed. Eighty (100%) of the study subjects agreed on finding no problems in stopping alcohol use in pregnancy. Table 8: shows nature of self care practices regarding tobacco smoking and 31 (38.75%) of the study subjects strongly agreed on not smoking tobacco, and 49 (62.25%) agreed to not smoking. Table 8: further shows that all study participants agreed they would not find it difficult to stop smoking during pregnancy should not be smoking. Table 8: further shows that 32 (40%) agreed on practicing safe sex, and 1 (1.25%) strongly agreeing, and 43 (53.75%) disagreed on practicing safe sex four (5%) were uncertain.

Table 8: shows that 2 (2.5%) strongly agreed on having knowledge of early booking. 66(82.5%) agreed, 7 (8.75) disagreed, and 5 (6.25%) were uncertain. Table 9: shows that 76 (95%) of the subjects agreed on having knowledge of taking a minimum three meals a day, 3(3.75%) strongly agreed and 1 (1.25%) disagreed. Table 9: shows that 77(96.25%) agreed on having knowledge of taking porridge with either peanut butter, cooking oil or margarine every morning, 3 (3.75%) strongly agreed.

Table 10: shows self care knowledge taking of wholesome meal, 3(3.75%) subjects strongly agreed in taking wholesome and 77 (96.25%) agreeing.

Table 10: further shows that 70 (87.5%) agreed on knowledge of taking at least six cups of water per day 2(2.5%) disagreed and 8 (10%) were uncertain. Table 10 : portrays levels of HIV antenatal self care knowledge regarding correct intake of ARVs, 76 (95) agreed on taking ARVs correctly and 4 (5%) strongly agreeing.

Table 10: reveals that 75 (95%) agreed on having knowledge of taking ARVs without missing a dose, 1(1.25%) strongly agreed, and 4 (5%) disagreed.

Table 10: also shows that 66 (82.5%) study subjects agreed to have knowledge of disclosure of their HIV status to their sexual partners, 7(8.75%) strongly agreed, 4 (5%) disagreed and (3.75%) were uncertain.

Table 11: shows levels of HIV antenatal self care knowledge regarding, exercises and 71 (88,75%) agreed on having knowledge on exercises ,4(5%) strongly agreed, 3 (3.25%) disagreed they did not have and 2(3%) were uncertain. Table 11: further shows that 61 (76.25%) subjects agreed on having knowledge regarding recommended 3-4 hours of rest during pregnancy, 7(8.75%) strongly agree, and 12 (15%) were uncertain. Table 11: further shows that 80(100%) of the study subjects had knowledge regarding alcohol use in pregnancy and 80(100%) strongly agreed on having knowledge regarding stopping alcohol use in pregnancy.

Table 12: shows that 16 (20%) subjects strongly agreed on holding knowledge regarding tobacco smoking, 17 (21.25%) subjects strongly agreed on having knowledge on having knowledge on stopping smoking and 63 (78.75%) agreed. Table 12: also shows levels of HIV antenatal had knowledge regarding safe sex 18 (22.5%) strongly agree on having the knowledge, and (77.5%) agreed.

Table 8: Nature of HIV antenatal self care practices (5)
(N=80)

Variable	Frequency	Percentage
Self care practices regarding tobacco smoking		
Strongly agree	31	38.75
Agree	49	61.25
Strongly disagree	0	0
Disagree	0	0
Uncertain	0	0
Self care practices regarding stopping tobacco smoking		
Strongly agree	0	0
Agree	80	100
Strongly disagree	0	0
Disagree	0	0
Uncertain	0	0
Self care practices regarding self care safe sex		
Strongly agree	1	1.25
Agree	32	40
Strongly disagree	0	0
Disagree	43	53.75
Uncertain	4	5

Table 9: levels of HIV self care knowledge (1)
(N=8)

Variable	Frequency	Percentage
Self care knowledge regarding early booking		
Strongly agree	2	2.5
Agree	66	82.5
Strongly disagree	0	0
Disagree	7	8.75
Uncertain	5	6.25
Self care knowledge regarding minimum number of meals taken per day		
Strongly agree	3	3.75
Agree	76	95
Strongly disagree	0	0
Disagree	1	1.25
Uncertain	0	0
Self care knowledge regarding recommended wholesome porridge		
Strongly agree	3	3.75
Agree	77	96.25
Strongly disagree	0	0
Disagree	0	0
Uncertain		0

Table 10: Levels of HIV antenatal self care knowledge (2)
(N=80)

Variable	Frequency	Percentage
Self care knowledge regarding ARVs intake		
Strongly agree	4	5
Agree	76	95
Strongly disagree	0	0
Disagree	0	0
Uncertain	0	0
Self care knowledge regarding not missing ARVs dose		
Strongly agree	1	1.25
Agree	75	93.75
Strongly disagree	0	0
Disagree	4	5
Uncertain	0	0
Self knowledge regarding HIV status disclosure to sex partner		
Strongly agree	7	8.75
Agree	66	82.5
Strongly disagree	0	0
Disagree	4	3.755
Uncertain	3	3.75

Table 11: Levels of HIV antenatal self care knowledge (3)
(N=80)

Variable	Frequency	Percentage
Self care knowledge regarding exercises		
Strongly agree	4	5
Agree	71	88.75
Strongly disagree	0	0
Disagree	3	3.25
Uncertain	2	3
Self care knowledge regarding hours of rest		
Strongly agree	7	8.75
Agree	61	76.25
Strongly disagree	0	0
Disagree	0	0
Uncertain	12	15
Self care knowledge on alcohol consumption		
Strongly agree	18	22.5
Agree	62	77.5
Strongly disagree	0	0
Disagree	0	0
Uncertain	0	0
Knowledge on stopping alcohol		
Strongly agree	16	20
Agree	64	80
Strongly disagree	0	0
Disagree	0	0
Uncertain	0	0

Table 12: Levels of HIV antenatal self care knowledge (4)
(N=80)

Variable	Frequency	Percentage
Self care knowledge regarding tobacco smoking		
Strongly agree	16	20
Agree	64	80
Strongly disagree	0	0
Disagree	0	0
Uncertain	0	0
Self care knowledge regarding stopping tobacco smoking		
Strongly agree	17	21.25
Agree	63	78.75
Strongly disagree	0	0
Disagree	0	0
Uncertain	0	0
Self knowledge regarding safe sex		
Strongly agree	18	22.5
Agree	62	77.5
Strongly disagree	0	0
Disagree	0	0
Uncertain	0	0

Table 13: shows the results of the nature of HIV antenatal self care practices. The findings show that 48 (60%) booked early within 3-4 months, and (40%) booked late. The results also show that 75 (93, 75%) of the subjects took a minimum of three meals per day, 3 (3.75%) varied, and 1 (1.25) did not. Regarding taking of wholesome breakfast, 19 (23.75%) were taking porridge with peanut butter, cooking oils or margarine, 18 (22.5%) were not, and 43 (53.75) were uncertain. Results also show that 31(41.25%) of the subjects agreed on taking of tea with brown bread, with margarine, meat, eggs or jam, 43(53.75%) were uncertain and 6 (6.75%) did not. Regarding balanced meals, 16(20%) of the subjects agreed to taking balanced meals and 56 (70%) were uncertain and 8 (10%) totally disagreed. Findings on water consumption show that 28 (35%) of the study subjects agreed on minimum of six cups per day, and (57.5%) were uncertain and 6 (7.5%) were not. A total of 75 (93.75%) of the subjects agreed were taking their ARVs correctly and 5 (6.25%) strongly agreed.

Table 13: further shows that 69 (86.25%) of the subjects had not missed their ARVs dose, 11 (13.75%) had. Relating on the same table 60 (75%) had disclosed their HIV status to their partners and 20 (25%) had not. Regarding exercises, 14 (17.5%) agreed exercising at least 3 times a day, 58(72.5%) were not sure of how many times they exercised per day, 8 (10%) did not exercise at all. Regarding rest 41 (51.25%) rest agreed in resting at least 3-4 hours per day, 35 (43, 75%) were uncertain and 4 (5%) did not.

Table 13 Nature of HIV antenatal practice (5)
(N=80)

No. of Respondances	Frequency	Percentage
According to Early booking		
	0%	0
4	48	60
3	0	0
2	0	0
1	32	40
0	0	0
No. Of Balanced meals		
4	1	1.25
3	75	93.75
2	3	3.75
1	1	1.25
0	0	0
Balanced breakfast		
Porridge 4	19	23.75
3	43	53.75
2	18	22.55
1	0	0
0	0	0
Tea (wholesome)		
4	0	0
3	31	38.75
2	43	53.75
1	6	7.5
0	0	0
Balanced lunches and supers		
4	0	0
3	16	20
2	56	70
1	8	10
0	0	0
Water intake	0	0
4		
3	28	35
2	46	57.5
1	6	7.5
0	0	0
Correct ARVs Intake		
4	5	6.25
3	75	93.75
2	0	0
1	0	0

Table 13 Nature of HIV antenatal practice (6)
(N=80)

Missing a dose			
	4	1	1.25
	3	68	85
	2	0	0
	1	11	13.75
	0	0	0
Disclosure			
	4	7	8.75
	3	33	41.25
	2	0	0
	1	40	50
	0	0	0
Exercises			
	4	0	0
	3	14	17.5
	2	58	72.5
	1	8	10
	0	0	0
Rest			
	4	6	7.5
	3	35	43.75
	2	35	43.75
	1	4	5
	0	0	0
Alcohol Use			
	4	37	46.25
	3	43	53.75
	2	0	0
	1	0	0
	0	0	0
Stopping alcohol use			
	4	0	0
	3	80	100
	2	0	0
	1	0	0
	0	0	0

Table 13 Nature of HIV antenatal practice (7)
(N=80)

Tobacco smoking			
	4	31	38.75
	3	49	61.25
	2	0	0
	1	0	0
	0	0	0
Stopping T/ smoking			
	4	0	0
	3	80	100
	2	0	0
	1	0	0
	0	0	0
Safe Sex exercises			
	4	1	1.25
	3	32	40
	2	4	5
	1	43	53.75
	0	0	0

None of the study subjects agreed in taking alcohol, tobacco during pregnancy and hence not agreed in having difficulties in stopping. Forty three 43 (53.75%) disagreed on practising safe sex, 4(5%) were inconsistent in safe sex, and 33 (41.25%) agreed on practising safe sex.

Table 14: reports on the results of levels of knowledge on HIV antenatal self care. Regarding early booking knowledge 68 (85%) of the study subjects agreed to have the knowledge, 7(8.75%) disagreed on having knowledge, and 5 (6.25%) were not certain. Seventy nine 79 (98.75%) agreed to have knowledge of minimum number of meals to be taken in pregnancy per day, 1(1.25%) did not have. Regarding breakfasts and tea 80 (100%) of the study subjects agreed to know the recommended diet, on breakfast.

Seventy (87.5%) agreed to have knowledge on me balanced diet to be taken per day, 10 (12.25%) were not certain. Recordings show that 70 (87.5%) of the subjects knew the recommended amount of water to be taken per day, 2 (2.5%) did not and 8 (10%) were uncertain. Eighty (100%) do the study subjects knew about how ARVs are taken, 75 (93.5%) knew about missing a dose and 4 (5%) did not. Table 14: also shows that 73 (91.25%) of the subjects knew about disclosure, and 7 (8.75%) did not. Eighty (100%) agreed they knew about alcohol and tobacco uses in pregnancy and 80(100%) agreed to have knowledge on not finding it difficulties in stopping. Eighty (100%) of the study subjects knew about safe sex in HIV and pregnancy.

Table 14 Levels of HIV antenatal self care knowledge (8)
(N=80)

No. of Respondances	Frequency	Percentage
According to Early booking		
4	2	2.5
3	66	82.5
2	5	6.25
1	7	8.75
0	0	0
No. of meals		
4	3	3.75
3	76	95
2	0	0
1	1	1.25
0	0	
Wholesome Porridge		
4	3	3.75
3	77	96.25
2	0	0
1	0	0
0	0	0
Wholesome Teas		
4	3	3.75
3	7	96.25
2	0	0
1	0	0
0	0	0
lunches and supers		
4	1	1.25
3	69	86.25
2	10	12.5
1	0	0
0	0	0
Water intake		
4	0	0
3	70	87.5
2	80	10
1	2	2.5
0	0	0
ARVs Intake		
4	4	5
3	76	95
2	0	0
1	0	0
0	0	0

Table 14 Levels of HIV antenatal self care knowledge (9)
(N=80)

Missing Dose			
	4	1	1.25
	3	75	93.75
	2	0	0
	1	4	5
	0	0	0
Disclosure			
	4	7	8.75
	3	66	8.25
	2	0	0
	1	7	8.75
	0	0	0
Exercises			
	4	4	5
	3	71	88.75
	2	2	2.5
	1	3	3.75
	0	0	0
Rest			
	4	7	8.75
	3	61	76.25
	2	12	15
	1	0	0
	0	0	0
Alcohol Use			
	4	18	22.5
	3	62	77.5
	2	0	0
	1	0	0
	0	0	0
Stopping alcohol Use			
	4	16	20
	3	4	80
	2	0	0
	1	0	0
	0	0	0

Table 14 Levels of HIV antenatal self care knowledge (10)
(N=80)

Tobacco Smoking			
	4	16	20
	3	64	80
	2	0	0
	1	0	0
	0	0	0
Stopping T/Smoking			
	4	0	0
	3	80	100
	2	0	0
	1	0	0
	0	0	0
Safe Sex exercises			
	4	18	22.5
	3	62	77.5
	2	0	0
	1	0	0
	0	0	0

Table 15: shows the total results score on the dependent variable. The minimum score was 32 and maximum was 49 out of 64marks. The mean was 41.25 mode 41.5, range 17 and standard deviation 3.665 median, 42.

Table 16: shows the total scores of the independent variable, the level of HIV antenatal self care knowledge. The minimum score was 40 and the maximum was 54, out of 64 marks allocated to the interview schedule. The median 48, mode 48, range 14, mean 48,00 and standard deviation 2.278..

Table 17: represents the variations of scoring by the subjects on the levels of HIV antenatal self care knowledge. The ranking was 20-30 low; median was 31- 44 and high was 45-64. The total mark of the interview schedule was 64. Table 18: shows the variations in scores by the subjects on the nature of HIV self care practices. The rating of low was represented by marks from 20-30 and median represented by marks from 31-44 and high was represented by marks from 45-64. The total mark of the questionnaire was 64.

Table 19: shows the Pearson's correlation coefficient indicating the relationship between the levels of HIV self care knowledge and the nature of HIV antenatal self care practices among HIV positive mothers age 18-40years $r = .252^*$, $p <= .01$. Table 20: shows the regression analysis and the regression coefficient was $R^2 .= .064$.

SUMMARY

This chapter has presented the research findings on levels of knowledge and nature of HIV antenatal self care practices among HIV positive pregnant women aged 18-40 years at Chinhoyi Provincial Hospital. The descriptive statistics was used to determine and analyse information on levels of HIV antenatal self care knowledge and nature of HIV antenatal self care practices. They included mean, percentages and frequency form. Pearson's correlation coefficient and regression analysis was used to establish the relationship between levels of HIV antenatal self care knowledge and the nature of HIV antenatal self care practices of HIV positive pregnant women.

Table 15 total Practice score of subjects
(N=80)

Score	Frequency	Percentage
32	1	1.3
34	2	2.5
36	3	3.8
37	4	5.0
38	7	8.8
39	7	8.8
40	4	5.0
41	9	11.3
42	11	13.8
43	4	5.0
44	9	11.3
45	5	6.3
46	8	10.0
47	2	2.5
48	2	2.5
49	2	2.5
Total	80	100.0

Table 16 Total Knowledge score of subjects
(N=80)

Score	Frequency	Percentage
40	1	1.3
43	1	1.3
44	2	2.5
45	4	5.0
46	9	11.0
47	12	15.0
48	24	30.0
49	14	17.5
50	2	2.5
51	6	7.5
52	2	2.5
53	1	1.3
54	2	2.5
Total	80	100%

Table 17 – Levels of Knowledge on HIV antenatal self care
(N = 80)

Variable	Frequency	Percentage
Low knowledge levels	0	0
Median Level	4	5.0
High level	76	95.0

Table 18 – The nature of HIV antenatal self care practices
(N = 80)

Variable	Frequency	Percentage
Low knowledge levels	0	0
Median Level	3	3.75
High level	77	93.25

Table 19 Pearson's correlation matrix
(N=80)

Y	1000
X	.252*

* P < .05	** P < .01	*** P = .001

Y = Nature of HIV antenatal self care practices

X = The level of HIV antenatal self care knowledge

Table 20: Regression Analysis of the relationship between the levels of HIV antenatal self care knowledge and the nature of HIV antenatal self care practices.
(N = 80)

Variance	B	SEB	BETA
X	.406	.176	.252*
Constant	2.624	0.24	
R^2 = .064	F 5.300		

* P < = .05	** P < = .01	*** P < .001

CHAPTER 5

DISCUSSIONS, IMPLICATIONS AND RECOMMENDATIONS

SUMMARY

The purpose of the study was to examine the levels of HIV antenatal self care knowledge and the nature of HIV antenatal self care practices among HIV positive women aged 18-40 years at Chinhoyi Provincial Hospital. The sample consisted of eighty HIV positive pregnant women who were interviewed at Chinhoyi Family and Health centre. A descriptive correlational study design was used. The simple random sampling plan was used to select study subjects who met the inclusion criteria.

The dependant variable was the nature of HIV antenatal self care practices and it was measured by face to face interview schedule. The schedule had 16 positive questions of which each had provided questions of strongly agree, agree, uncertain, strongly disagree, and disagree with marks ranging from 0-4. 0 for a perfect negative and 4 for perfect positive answer. The mean 3 and median2, and standard deviation. 1.2.The three categories of low for 20-30, medium for 31-44 and high for 45-64 was used to rate the nature of HIV antenatal self care practices among HIV positive women. There was no low mark scoring on the nature of HIV antenatal self care positive practices, (3,75%) scored medially, and 96% scored high. The mean score was 41, 25 medium 42, 00 range 17 and standard deviation was 3.66,5. The minimum score was 32 and maximum 49 out of 64 marks.

The independent variable was the levels of HIV antenatal self care knowledge. It had 16 positive questions on the levels of HIV antenatal self care knowledge and each had five options of answering which were strongly agree, agree, uncertain, disagree and

strongly disagree. The marks ranged from 0 for a perfect negative and 4 for a perfect positive. The scores were rated as low for a 20-30, median 31-44 and high for 45-64. There was no low scoring the levels of HIV antenatal self care knowledge, (5%) scored medially and 95% scored high on the levels of HIV antenatal self care knowledge. The range was 14, median 48,00, mode 48, mean 48,98 and standard deviation 2.278. The minimum score was 40 and maximum 54 out of 64.

Inferential statistics of Pearson's product moment correlation coefficient was used to analyse the relationship between the levels of HIV antenatal self care knowledge and the nature of HIV antenatal self care practices among HIV positive pregnant women. The interview schedule responses were intered in the Statistical Package for Social Science (SPSS) version 10. Descriptive statistics were used to analyse the data. The relationship between the level of HIV antenatal self care knowledge and the nature of HIV antenatal self care practices was determined using Pearson's product moment correlation test.

The findings showed a significant positive correlation, r= .2.52, $p < .01$. A regression analysis was performed to examine the strength of the relationship at significance level of 0.05, and findings showed a relationship, $R^2 = 064$, $P< .01$. It shows that there was significant moderate positive relationship with the dependant variable that is 34% positive modification in behaviour among HIV positive women, in response to acquired levels of HIV antenatal HIV self care knowledge .

Discussions and Implication

Sample Demographics

All 80 (100%) of the study subjects respondent to the structured interview schedule. Subjects ages were grouped into four groups, 18-24 years, 25-30 years, 31-34 years and

35-40 years. The 56 (70%) of the study subjects fell into the safe reproductive ages 30 (37.5%) booked in the 1st trimmest that is between 14-16 weeks of pregnancy. 6 (7.5%) were from the age group 25-30 years and finally 12(15%) were from the age group 31-34. None from the age group 35-40 booked in the first trimester. Those who booked early managed to get the benefits of early antenatal booking , such as, getting foliate prophylaxis, antimalarials and early identification obstetrical problems. This is supported by a study by Kogan et al (2009) which states that it is important to educate child bearing woman in order to make early initial ANC visits and gain, maximum benefits and allow for early detection of medical and obstetrical conditions. The remainder of women who booked late, held various reasons, such as being well physically or finance or lack of instructions. This is supported by the study by WHO (2011) which states that late bookings were attributable to lack of awareness on the seriousness of pregnancy risks, long distances, lack of resources and attitudes of health personnel. In another study by Ngemuluke (2010) relates that factors that hindered women from booking ranged from lack of knowledge, lack of money for booking costs and transport. Study findings shows that the women in high risk age of reproduction also did not book in the first trimester, this could be attributable to experiences they held with other pregnancies. If they did not experience any complications, in their pregnancies they might, would have overlooked the problems associated with their ages as well as that of HIV. A study by Awenmic et al (2011) support this literature when he wrote ,on self care in HIV, that 65% of the subjects booked early because of knowledge gained in previous pregnancies, but 35% reported that they did not find a valid reason for doing so, since they were physically well.

Old age in pregnancy is associated with pregnancy induced hypertension, chromosomal defects, and delivery complications. HIV in pregnancy is associated with, abortions intrauterine growth restrictions, vertical transmission and intrauterine deaths (WHO, 2011).

Findings also show that the majority of the subjects 64 (80%) were married, and 55(68.75%) stayed with their husbands. They also held high levels of HIV antenatal self care knowledge and where practicing good antenatal self care which included disclosure and prodicey. This is supported by a study by UNAIDS(2010) in Zimbabwe which revealed that 91.3% of the study subjects disclosed their HIV results to someone, 66% to their husbands and of these 83.5% adhered to ARVs regimen, and 26.3 of the subjects used condoms correctly and consistently. About 16 (20%) were cohabiting and they hold part of the percentage that are practicing unsafe sex as well as those who did not disclose their status. Chikonde et al (2009) relates that lack of disclosure of HIV status to male partners resulted in poor adherence in 69% of the study subjects.

Regarding educational levels 52(65%) of the study subjects held secondary level education and additional 2 (2.5%) held tertiary education this led to attainment of high scores on educational levels of HIV antenatal self care knowledge. About 76 (95%) scored high levels of HIV antenatal self care knowledge with only 4(5%) holding medium level of HIV antenatal self care knowledge. Out of 48 (%) who booked early only 4(5%) had grade seven level education. High levels of knowledge in HIV self care leads to better HIV antenatal self care practices. This supported by a study by Christian et al (2011) which relates that 56% of the study subjects who booked in the first

trimester had positive pregnant outcome, related to holding correct information on HIV antenatal self care practices.

Findings regarding occupation, show that despite the fact that 65%of the study subjects held secondary education, only 5(6.25%) were employed, 3(3.7%) formally and 2(2.5%) self, and were getting a salary between $300 - $600 while 3(3.75%) were earning $50 - $200. The majority75 (93.8%) were not employed and hence not getting any income. This can be correlated to the late booking percentage, and poor diet practices by the majority of the study subjects.

This is supported by the study findings by Nsemulike (2010) which relates that factors that hindered women from booking were lack of knowledge, and lack of money for transport and booking. Findings show that 24(30%) to the study subjects stayed in urban areas. There is good accessibility of health facilities in urban than in rural areas, In Zimbabwe, antenatal courages are high in urban areas which cover 60% and low in rural areas which cover 40%, because more people are reached with information in urban than in rural areas. About 17 (21.3%) of the subjects resided in semi-urban areas which are almost the same as urban. This explains the reason for bigger percentage practising positive ANC self care, among the study subjects. In a study on HIV antenatal self care in the context of Primary Health Care, UNICEF (2011) relates that to enable HIV pregnant women to practice appropriate HIV antenatal and effective self care, correct, essential and adequate information on HIV antenatal self care should be delivered in a culturally sensitive manner. About 22(27.5%) were farm dwellers, 3(3.7%) plot dwellers, and 14(17.5%) communal dwellers. The area of residence could have played a role in placing the subjects on lower opportunity for higher secondary education, but the good part of it

is that they all had reached level seven of primary education which is adequate to place the holder on the basic levels of understanding basic principles of life as well as affording a health life, and ability to maintain it. This was evidenced by not obtaining any subject who scored low on levels of HIV antenatal self care knowledge.

The study reveals that 36(45%) of subjects were Pentecostals, and their religions accepted hospitalisation hence all subjects booked. About 24 (30%) were Catholics, 4 (5%) Salvationist, 10(12.5%) Adventist, 5 (6.25%) traditionalists 1(1.25%) did not belong to any religion sector. All of the subjects did not report religion restrictions.

Regarding Parity, 22(27.5%) were prime ups, but all held high levels of HIV antenatal self care knowledge which helped modified their practices on hospitalisation.

About 39 (48.75%) were paras 1-2, and 19(23.75%) were all above 3. All subjects reported good antenatal practices in most areas such as diet, booking, alcohol and tobacco uses. Though they lacked in the areas of disclosure and safe sex.

The study also revealed that a majority of 47(58.75%) had stayed positive for as long as 2-12 months, 18 (22%) 13-30 months positive. Findings show that 8 (10%) relates that they have stayed positive for 31-40 months and 2 (3%) for about 41-60 months. The results show varying stages of disclosure due to the fact that male partners are now involved in maternal and child health services, some of the male partners knew the statuses during HIV post test counselling hence a reasonable percent (50%) on closure. Lack of disclosure by 50% of the total sample led to high percentage on unsafe sexual intercourse and more studies need to be carried out on factors leading to this malbehaviour.

The Nature of HIV Antenatal Self Care Practices

The study achieved 100% of response rate. Forty eight represents a (60%) of study subjects booked their pregnancy early, within the 16 weeks which is the WHO (2011) recommended good ANC practice. HIV antenatal self care practices include early booking from at least 14-16 weeks of gestation; this will afford the women the benefit from ANC services such as early detection of risks and early interventions to improve pregnancy outcomes, (Sellers 2010). WHO (2011) supports this practice by reporting that a women is expected to visit the health centre for normal ANC about four times. The first being at 14-16 weeks, second 20-24 weeks, third 28-32 weeks and last visit at 36 weeks. In the study about 32(40%) of the subjects booked late which is a disadvantage to them since late booking is associated with less episodes of care and prenatal classes which result in unsafe, ANC practices due to lack of knowledge. This is supported by the study by Suya, (2010) which states that late bookings were attributable to lack of awareness on the seriousness of pregnancy risks.

Early booking associated with positive pregnancy outcomes. A study by Aluko et al (2010) an ANC in HIV supports the findings as it revealed the 6% of the study subjects who booked between 16-20 weeks benefited from practices such as taking foliate, ARVs and antimalarials in early pregnancy and this was correlated with positive pregnancy outcomes.

In response to how many meals, study subjects were taking, 76(95%) of the study subjects were taking at least three meals a day. This is a positive practice since the effect of HIV on nutrition begins early in the course of the disease (WHO 2010). Coupled with pregnancy asymptomatic women require 20-30% more energy than HIV negative

individuals of the same age and physical activity level (Silk et al, 2010). This is further supported by Tinkel et al, (2010) who in their study on nutrition in pregnancy highlighted that 90% of the subjects reported taking two slices of chicken, beef, pork or mutton with tomato soup, royco or soya soups, fried or boiled at least twice a day for lunches and suppers. Taking of adequate nutrients in HIV and pregnancy prevents premature deaths, increase survival rate in adults with low CD4 cell counts, prevents adverse pregnancy outcomes and prevents mother to child HIV transmission (WHO, 2010). The remaining four (5%) who were not practicing taking of at least three meals a day, faced the risks of shorter survival time, increased risks of opportunistic infections and poorer pregnancy outcomes. Literature highlights that malnutrition suppresses immunity which in turn is associated with poor pregnancy outcomes. Regarding taking wholesome porridge 19(23.75) of the study subjects were taking wholesome porridge for breakfast which afforded them extra nutrients above their counterparts, 18(22.50) who did not take porridge at all. This is supported by a study by May (2010) on nutrition in pregnancy which revealed that increased caloric intake for HIV pregnant women was associated with reduced undesirable side effects of ARVs linked to malnutrition. The study also shows that 43(53.75%) of the subjects varied between taking wholesome porridge and at times not.. There is need for midwives to reemphasise on the need for taking high caloric diets. The study findings show that 31(38.75%) of the subjects took wholesome teas, which is a good practice. This is supported by a study by Silk et al (2010) on nutrition on HIV and pregnancy, which states that about 80% of their study subjects reported that taking 1 boiled egg, 1 cup cooked straight run or whole meal porridge, a cup of tea or coffee with milk and 2-4 teaspoons of sugar and 1-6 slices of bread for breakfast were

correlated to good nutritional statuses. Table 5 also reveals that 43 (53,75%_ of the study subjects were not certain taking wholesome teas, during their ANC periods. This could be attributable to lack of resources or bad attitudes towards tea. Midwives need to emphasis on benefits of balanced nutrition during ANC which is associated with good pregnancy outcomes. Findings also revealed that 6(7.5%) of subjects rejected taking tea completely. This is a bad practice, but there are several factors that could lead to not taking teas at all, by other people such as allergies, poverty or even lack of knowledge. This is a challenge that would warrantee further studies.

The maternal malnutrition status forms the major part of maternity care during ANC and hence it is of paramount and importance to address this component holistically. The nutritional status of an HIV positive pregnant woman plays a pivotal component of maternity care, not just to herself but also to the fetus' health, in terms of duration of ANC period and intensity of malnutritional impact on both. In regard to taking of a balanced diet during ANC the study findings show that only 16(20%) of the study subjects practiced it. The findings are not pleasing and they pause a challenge to practicing midwives to investigate in circumstances surrounding this practice since it proves not to be tied around lack of knowledge. A study by (WHO 2011), nutrition in HIV state that HIV increases energy requirements, because it affects nutrition through increase in resting energy expenditure, reduction of food nutrients intake, nutrient mal-absorption and complex metabolic alterations, hence the need for intake of an excess well balanced diet. The study findings therefore underscore the evidence, gaps and priorities of midwifery actions related to nutrition in HIV and pregnancy among HIV positive pregnancy women. Findings further show that 56(70%) of the subjects varied in their

taking of balanced meals, which proves the lack of seriousness in dietary issues in pregnancy. Results also revealed that 8(10%) of the study subjects were completely failing to take balanced meals, not due to lack of knowledge but other factors such as poor eating habits, minor disorders of pregnancy and poverty.

The importance of taking adequate water in pregnancy was supported by 28(35%) who were taking the recommended amount of at least 6 glasses of water per day. Myles (2010) in her literature wrote that water is a good medium in distribution of drugs within the body and hence women on ARVs should be encouraged to take adequate amount of water every day during ANC. About 46(57.5%) of subjects work were not certain of how much they took water daily. 6(7.5%) did not take up to 6 glasses per day but less. This pause a need for more educational talks over and over again in order to achieve the designed levels of daily water intakes by pregnant HIV positive women.

It was identified that 80(100%) of the study subjects took their ARVs correctly every day which is a good practice outcome. This is supported by the study that slows that in Zimbabwe all positive pregnancy women receive pre-initiative education before being initiated on ARVs to promote adherence (MOHCW; 2010). Infants whose mothers do not take ARVs during pregnancy have a 60% risk of being infected during prenatal and labour (WHO; 2012). On the issue regarding missing a dose (69(86.25%) reported not missing a dose during their ANC, which is a good practice. Zimbabwe declares 95% ARVs adherence as acceptable (MOHCW; 2010). These subjects practices 100% adherence which is highly recommended.

This is supported by a study by Chikande (2010) on adherence on Kadoma City Health Clinics which revealed that 80% of the study subjects, who had low levels in

adherence in ARVs, had increased rates of vertical transmissions. The study reveals that 11(13.75%) of subjects did not practice 95% adherence, hence the need to reemphasise on adherence.

Regarding disclosure the study revealed that 40(50%) of the subjects had disclosed their status to their sexual partners. Disclosure is a good practice in ANC because it promote adherence which results in reduction in vertical transmission. This is supported by a study by (USAIDS 2010) in Zimbabwe which revealed that 91% of the subjects who disclosed their statuses to their husbands, resulted in 83% of their adherence. USAIDS (2011), also reported that taking ARVs correctly was related to positive pregnancy outcomes. The study however slows that 40(50%) of the study subjects did not disclose, their status to their husbands due to various factors. Muchaudzi (2009), in his study revealed that, 78% of the study subjects who did not disclose, their families were the sources of the problem, and this contributed to negative pregnancy outcome .

Many (72.5%) but not all of the subjects were not certain on how to moderate their exercise, they randomly and it appears to be common among Zimbabwean pregnant women. A study by the Health Nursing Journal vol I of (2010), reported that many pregnant HIV positive women are concerned about moderating their activities such as gardening, cleaning , washing and cooking for the family are unavoidable chores and 95% of the subjects reported these during the study. Lanolin (2009):- his study states that vigorous activities are possible if not overdone and therefore midwives should educate mothers on moderating their activities.

The findings show that 8(10%) of the study subjects did not exercise in pregnancy at all and these need to be educated on the benefits of exercises in pregnancy. Only 14(17.5%) of the study subjects were exercising and in a study by Haywood, Brown, 90% of the subjects reported that exercises kept them in shape and reducing stress, therefore midwives should encouraged more exercises. Regarding rest the study revealed that 41(51.28%) of the study subjects rested at 3-4 hours per day. A publication on women and AIDS, (2010), states that 90% of women maintain their usual daily domestic chores, throughout pregnancy. Brisk walking attending sport groups or outdoor light activities are good throughout pregnancy.

Regarding the issues of alcohol use and tobacco smoking in pregnancy, 80(100%) of the subjects reported not to be associated with bad behaviours and therefore would not find it difficult to stop. Although none of the study subjects were non smokers or alcohol consumers, it does not avert the need to continue on educating ANC women on the dangers of these substances.

Finally the study reveals the finding on safe sex. The majority of study subjects 47(58.75%) were not practicing safe sex according to findings. This is in line with the findings by Chikonde et al (2009) which relates that lack of disclosure of HIV status to male partners resulted in poor adherence in 69% of the subjects which led to practicing unsafe sexual intercourse. The high rate of inconsistence in safe sexual activities is related to the high rate of failure to disclose by the study subjects which was 50%. Midwives are highly challenged to inquire about the factors contributing to the behaviours, since safe sex is the core component of Mother to Child transmission of HIV. Unsafe sexual activities increase the risk of vertical transmission; therefore it should be

discouraged as far as possible. The fact that the findings revealed that all subjects were well educated on the issue, raises a lot of concern among midwives, to correctly identify the factors that are influencing these behaviours.

The levels of HIV antenatal self care knowledge

All 80(100%) of the subjects responded to the question on recommended period of booking. The majority of the study subjects 68(85%) held high level of knowledge pertaining the recommended period of booking. This denotes that the health care providers are working well in the area of disseminating essential information to the HIV positive mother. However there is still great need for them to encourage women to fully and effectively utilise the knowledge that they hold effectively. Though early booking was initiated better than later booking. This is in line with Gupta's (2012), findings which states that HIV positive pregnant women need to know their attributes, those of their families and communities, identify common problem affecting them in a given line and setting. Devise mechanisms for increasing awareness, empowerment and knowledge of what they can do themselves as HIV antenatal self care practices. Seven (8.75%) of the subjects did not have knowledge on recommended booking time and these had to be taught on when they are expected to book on their subsequent pregnancies. Five (6,25%) of the study subjects held information on early booking but were not certain whether it was correct or not hence reemphasis was done, and grey areas clarified, during the study. Pertaining the minimum number of meals, one should take per day, 79(98.75%) of the study subjects knew and were practising it. At least only one (1,75%) did not have the information and was educated on that. This was supported by Reugajin (2012), when he

elucidated that health value means that people who value health will practice self care provided they have the sufficient knowledge.

Responding to intake of wholesome breakfast, 80(100%) subjects reflected they all held adequate knowledge. Though 18(22.5%) were not taking wholesome porridge and 6(7.75%) were not taking wholesome teas, the reasons could be tied to other factors, such as poverty or attitudes. The 43(53.5%) who were not certain in constant taking of the recommended meals could attribute this to unavailability of resources. The holding of high levels of knowledge lead to good practices 19 (23,75%) by subjects who reported practicing taking balanced breakfasts. In a study by Silk et al (2010), shows that about 80% of the subjects reported taking 1 boiled egg, 1 cup tea or coffee or milk with 2-4 teaspoons sugar and 1-6 slices of bread for breakfast. The study findings also revealed that the subjects' practices were co-related to good nutritional statues during their antenatal periods. Good nutritional statues in pregnancy is associated with good pregnancy outcomes.

Responding to the question on knowledge of taking balanced lunches and supers 80(100%) reported holding high levels of knowledge. A study by Naggy, (2011), on self care during pregnancy, reported that participants, reported "The diet that is balanced and include fresh fruits, grains and vegetables, cereals that are high in fibre and low in sugar are my choice". The subjects, held, high knowledge about diets for themselves and the foetus. Ten (12.5%) reported they knew about balanced diet, but were not certain on the consistency of taking the recommended diets. This could be attributable to lack of resources. A study by Munjanja in Zambia and Zimbabwe, (2009), reported that sadza with vegetables, beans or meats were commonly reported for lunches and suppers in 90%

of the subjects. In about 95% of these fruits were found to be less frequently taken, to as less as twice per month, and this led to micro malnutrition in 67% of the study subjects. Responding on levels of knowledge on correct amount of water to be taken per day about 87.5% held the knowledge. Therefore they can be either to positive or negative gradient. Eight (10%) held medium knowledge on taking water on daily basis but were uncertain with the amount they were taking. This means that they were the correct water. Knowledge in correct amount to be taken per day was given. Two (2.55) water should be taken and these were educated.

Finding reveal that 80(100%) of the subjects held high levels of the recommended dose, frequency and timing of taking ARVs. This was supported by a 100% of practicing intake of ARVs. Respondents on knowledge on missing a dose of ARVs were a positive 76(95%). This is a very good result since it reduces the incidence of resistance and promotes PMTCT. A study by Badon and Sawuni (2011) reported that 82.3% of the study subjects took ARVs correctly because they knew that this could lead to less chances of cervical transmission and did not want to infect their unborn infants. Infants whose mothers did not take ARVs during pregnancy have a risk of 60% risk being infected during prenatal and labour (WHO 2012). Four (5%) respondents reported that they did not have any knowledge on missing ARV doses and these were sport educated. Regarding disclosure of HIV status to sexual partner, 73(91.25%) agreed to this information on disclosure and this led to 50% rate of disclosure. Disclosure affects the rate of correct ARVs intake, missing a dose as well as adherence. Disclosure should be encouraged at all cost so as to achieve high levels of adherence. In a study on adherence by UN AIDS (2010) in Zimbabwe, results revealed that 91.3% of the subjects who

disclosed their HIV status to someone, 66% to their husbands, and of these 83.5% adhered to ARVs regimen. In the same study among those who adhered 23.3% used condoms correctly and consistently. This denotes that there is need to reemphasise on adherence knowledge utilization, since in this study the levels of knowledge did not adequately influence the practice of adherence Exercises are part of day to day life of an African daughter in law. Culture demands automatism in domestic chores hence almost all women exercise. About 75(93.75%) of the study subjects held high levels about exercises. Exercises are good for health, though they should be moderate in pregnancy. Many pregnant women are concerned about moderating their activities, (The health care Nursing Journal Vol I, 2010). In a group discussion during a study on HIV antenatal self care by Kao, (2010) many pregnant women showed concern that they did not know how to moderate their daily activities. They continue to work and sometimes even harder during pregnancy. Stating that activities such as gardening, cleaning, washing and cooking for the families were unavoidable chores. The midwives need to strategise health talks on exercises in culturally sensitive manner. The study finding revealed that 80(100%) of the subjects held correct information about alcohol consumption and tobacco smoking and all did not practice taking them, hence also reported not finding difficulties in stopping them. Though the study subjects did not practice these bad habits it does not mean there are no HIV pregnant mothers who practice these in Makonde, therefore information on avoiding these should be given always. Repondences on knowledge a safe sex show that all (100%) of study subjects knew about safe sex.

However, 35(43.75%) of the study subjects practised it. This denotes that the malpractice of having unprotected sex is attributable to other facts not knowledge. It then pause a

great challenge in midwifery to conduct further researches to identify the factors that lead to this behaviour.

Relationship Between the levels of HIV Antenatal Self Care Knowledge and The nature of HIV self care practices.

Findings revealed that that there was 34% correlation between the levels of HIV antenatal self care knowledge and that of HIV antenatal self care practises, $r = .252$, $p < .01$). As the levels of HIV antenatal self care increases, the better the nature of HIV antenatal self care practises among HIV positive pregnant women. The findings indicates that as the levels of HIV antenatal self care rose, the nature of HIV antenatal self care practices, improved, for better pregnant outcomes . Results show that 80 (100%) of the mothers held moderate to high levels of knowledge and non held low levels. However the received knowledge varied in patterns among the subjects, evidenced by 40 (50%) of the subjects not disclosing and (22.5%) not tacking wholesome porridge 6 (7.5%) not taking wholesome teas and 43 (53.75%) not practising safe sex. This indicates that the midwife educators should device strategies that address other factors which are influencing these practices. The fact that knowledge dissemination is among midwives in family health department is a good gesture and should be maintained, since it is producing positive results, with subsequent efforts more positive nature of HIV antenatal self practices will be experienced.

Theoretical framework

Theoretical framework is an overall under pinings of a study (Polite and Beek, 2008). It is an abstract logical structure that guides the development of a study and enables the investigator to link study finding to nursing's body of knowledge (Burn & Groove, 2010). The theory of self care deficit by Orem (2010) was chosen to guide this study because it provides a pattern of proper nursing reasoning that links acquired levels of HIV antenatal self care knowledge to HIV antenatal self care practices of the HIV positive pregnant women. Orem (2010) self care deficit theory focuses on a person's capabilities and limitations for self care. Nursing is required when adults or dependents are incapable of or are limited in their ability to provide continuous effective self care. Nursing may also be provided if the capacity to provide continuous effective care is less than what is needed so an identified self care demand or when the ability to provide care is currently adequate but deficit is provided for the future due to predictable decrease in the knowledge and ability to provide the care (Orem 2001).

Orem's theory of self care deficit is composed of three interrelated theories, the theory of self care, theory of self care deficit and the nursing systems incorporated in these three theories are six central concepts and one peripheral concepts, The concept of self care demand, self care agency nursing agency therapeutic demands and conditioning factors. The self care deficit was the level of HIV antenatal self care knowledge deficit, held by the subjects in this study and it was the independent variable. The nature of HIV antenatal self care practices was the dependent variable and was influenced by the acquired levels of HIV antenatal self care knowledge by the study subjects

Demographic factors such as age educational levels, marital status, parity and period of positivity and disclosure were the peripheral modifying factors on both the

independent and dependent variables. These to some extend modified the utilisation of acquired levels of HIV antenatal self care knowledge, and contributed to a 34% positive modification of the nature of HIV antenatal self care practices by the HIV positive pregnant women.

The phase of self care deficit, which is when self care demands exceeded self care agency, was replaced by the phase of self care, which is the ability of an individual to perform or practice those activities that they initiate and perform on their own behalf to maintain structural integrity and human functioning. In the study this was demonstrated by findings that revealed positive self care agency, which is the subjects acquired powers and capabilities to engage in self care. The knowledge that the study subjects acquired through interactions during the study, led to 34% practical modifications on the nature of HIV antenatal self care practices.

The nursing systems, designed by nurses themselves, based on the abilities of the patient to perform self care activities, Orem, (2010). Through face to face interviews the investigator was able to identify the level of self care deficit, design compensatory strategies based on demand and then help the subjects, either wholly, partly or through education and support systems.

Implication to Midwifery Practice Research and Education

Implications on Research

Midwifery research is essential if midwives are to understand dimensions of their profession. Research has enabled midwives to describe characteristics of a situation on this case knowledge on HIV antenatal self care practices of the studied sample. The study has paused a challenge to midwives to research factors contributing to lack of disclosure, and unsafe sexual practices by a large percentile of the subjects. The finding also provides the midwives with indicators of their social relevance and the effectiveness of their professional conducts within the societies they live.

The research results identified so many issues that confront midwifery care and also provide motivation to embrace evidence based practice on an integral part of maternity care for HIV positive pregnant women, such diet, exercise, safe sex and disclosure. Finally using evidence based midwifery in clinical decision making is part of an ethical obligation for all midwives as it demonstrates the responsibility to do good as a professional action and avoids doing harm.

Implication of Education

The study findings have indicated the different in patterns of knowing among subject.
The study defines knowledge as a body of acquired information, but did not elaborate on patterns of knowing. As education segregate women as silent knowers, who view educators as authority, and consider authority as those who know, but do not reveal their knowledge to education, yet they hold on to it and practice it silently. Finding associate these with the percentage that learned that they should disclose and practice safe sex, but silently believe in their traditions and silently mal-practice.

The next group of knowers are subjective knowers, these receive knowledge, but listen to their inner voices and authority and identify sense of self, but are connected to

self on one occasion and to midwives in another. These are the women who remain uncertain, in their practices. They use received knowledge as well as subjective knowledge as they wish. This resulted in the percentage that reported inconsistency in safe sex.

The final pattern is the group of procedural knowers, these involve reason and objectivity in performance of their self care. In the study they are the ones who resulted in a 34% positive behaviour modification on the nature of HIV antenatal self care practices, due to perceived knowledge.

The midwives are faced with challenge of identifying three commonality knowers and strategies their education talks in a manner that addresses the different pattern groups. The findings also encourage pupil midwives to research wider on the above subjects. The studies are beneficial to Zimbabwean women and others hence, more studies on how Zimbabwean women should be helped should be conducted.

Midwifery Practice Implication

The ultimate goal of this research was to develop, refine and impact a body of knowledge in midwifery. The study findings have helped in generating knowledge to guide midwifery practice and improve the health of HIV positive mothers and quality life of these families. The study has provoked new challenge in the field of midwifery, to inquire about the factors that lead to failure of disclosure by most of the women in the Zimbabwean cultural context.

It will encourage the midwives to practise research or evidence based midwifery in improving the attitudes of Zimbabwean women in the ability to make informed

decisions in their reproductive health risks, specifically on safe sex. The findings will provoke many research questions, such as how do HIV infected women perceive their sexual life post infection? How do they value their lives with HIV infection? which would lead to better evidence based practises.

Although there is only one episode (investigation) inquiry, findings have evidence that knowledge has contributed to a 34% behaviour modification by the sample hence general agreement that more studies should be conducted to support this. Midwives are accepting the need to base their actions and decisions after research based evidence, in this study being the 34% behaviour modification, which will not only impact positively on the subjects pregnancy outcome, but also prove that these actions a clinically appropriate and cost effective to both.

Midwives who will incorporate quality research based evidence into their decisions and actions will be professionally accountable to their clients. The findings will also help midwives predict the possible outcome of actions such as undisclosure, lack of adherence and unsafe sex practices, they will plan midwifery care predict probable decisions, control and care that will prevent the occurrence of unwanted outcomes and initiate activities that promote desired client behaviors.

Nursing Administration

The nursing administrators should lobby for required resources to aid nurse researchers in carrying out required research studies without restrictions. They also need to advocate for adequate finances and budgets through provision of scientific facts requesting for these additional resources with the view to improve quality of maternal health outcomes. The study findings will also nurse administrators in planning organizing, implementing, monitoring and evaluations in their daily activities in the Family and Child Health Care Services in their catchment areas. Out reach programmes need to be adequately budgeted for in order to reach remote areas in investigating isolated and less privileged are child bearing mothers in order to meet their maternal required services.

Recommendations

1. Midwifery needs to identify the various patterns of knowing held by women they educate and come up with modified strategies that promote utilization of acquired knowledge by women.
2. There is need to intensify male involvement in all obstetric services ANC, Labour and post natal. This encourages disclosure and adherence in both ARVs and sexual practices, which results in better pregnancy outcomes.
3. There is need for further intensification of current programmes on reproductive health nights.
4. Conduct workshops on research presentation and analysis to improve their current body of knowledge on researches and research utilizations in midwifery.

5. Further studies to replicate the current study which indicated that there is only 34% utilization of high levels of acquired HIV antenatal self care knowledge by HIV positive pregnant women.
6. There is need for continued education to all midwives who work in the OIC departments of various hospitals so as to keep them abreast of new information on HIV antenatal self care knowledge.

Limitations

1. The study used the simple random sampling and the sample size was (80) which was smaller, compared to other studies which used sample sizes ranging from 500 – 1000. This limits the generalisation of the results to all HIV positive pregnant women who are not knowledgeable about positive nature HIV antenatal self care practices.
2. Face to face interviews were used whereby self reports were used for data collected; hence bias might would have been introduced, since subjects could use information of the past events for sexual behaviours and adherence, and this has a probability of lack of accuracy.
3. The instrument was developed and initiated by the investigator, therefore the study findings may not be generalised beyond the study.
4. The pilot study was done at the same site, through on different and subjects, this could have introduced bias to the study.

Summary

Varying patterns in knowing by a number of subjects resulted in varying in responses in utilization of the acquired levels of knowledge by the study subjects. They all managed to score between moderate and high levels of HIV antenatal self care knowledge, 40 (50%) of the subjects failed to disclose their status to their husbands, while 43 (53.25%) failed to practice safe sexual intercourse. However findings proved that knowledge has played a 34% positive impact of the nature of HIV antenatal self care practices of the study subjects.

The purpose of the study was to examine the relationship between the level of HIV antenatal self care practices among HIV positive woman aged 18 - 40 years.

Health promotion activities such as intensification of strategized health education talks, should be continued by midwives in various Family and Child Health department. Midwifery also needs to investigate on other factors contributing to rise in unprotected sex among HIV positive pregnant women.

A sample of 80 subjects was used in the study and was selected using the simple random selection technique. Correlational descriptive research design was used for this study to establish the relationship between the level of knowledge and the nature of HIV antenatal selfcare practices among HIV positive pregnant women. The instrument consisted of the demographic section, the level of knowledge section and the nature of HIV antenatal self care practice section. The results showed that 5% of the women held the moderate levels of knowledge while 95% held high levels, and 34% utilisation to knowledge towards positive HIV antenatal self care practises by the study subjects.

Descriptive statistics were used to analyse and summarise data on levels of HIV antenatal self care knowledge and nature of HIV antenatal self care practices. These included mean, mode, median standard deviation, frequency, percentages. The mean score on levels of HIV antenatal self-care knowledge use was 48.98 and standard deviation was 2.278. The mean utilisation of modified nature of HIV antenatal self care was 41.25 and standard deviation was 3.665.

Pearson's correlation coefficient was used to establish the relationship between levels of HIV antenatal self care practises. A significant positive moderate correlation was R = .252, P <= 0.1. Regression analysis was done because there was a significant relationship, $R^2 = .064$

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Appendix A (a)

INFORMED CONSENT FORM

PROTOCOL TITLE: THE RELATIONSHIP BETWEEN THE LEVEL OF HIV ANTENATAL SELF CARE KNOWLEDGE AND THE NATURE OF HIV ANTENATAL SELF CARE PRACTICES OF HIV POSITIVE PREGNANT WOMEN AGED 18 TO 40 YEARS AT CHINHOYI PROVINCIAL HOSPITAL IN MAKONDE DISTRICT

NAME OF RESEARCHER: Caroline Esther Chinyama

PHONE: 0772 750 065.

PROJECT DESCRIPTION:
This is a research study being undertaken in partial fulfillment of the Master of Science degree in Nursing Science. The study will be done at Chinhoyi District Hospital. HIV positive pregnant women will be entered into the study. A minimum number of 80 pregnant women will be recruited. Face to face interviews will be conducted to collect information from the individual people who come into the study.

YOUR RIGHTS: Before you decide whether or not to volunteer for this study, you must understand its purpose, how it may help you, the risks to you and what is expected of you. This process is called informed consent

Purpose

You are being asked to participate in a research of determining relationships between Self Care Knowledge and Self Care Practice among HIV Positive pregnant women attending antenatal clinic at Chinhoyi Hospital. The purpose of the study is to obtain information that will improve care of HIV positive pregnant women. You were selected as a possible participant in this study because you are HIV Positive and pregnant. You are one of the 80 participants who will be interviewed.

Procedure and Duration

If you decide to participate, you will undergo a face- to- face interview using a research questionnaire which will take 30 minutes.

Risks and Discomforts

No experiments are done in this research. The interview might cause you to be emotional, make you uncomfortable or delay your going home by 30 minutes.

Risks to Pregnant Women

No serious /significant effects neither to you or your unborn child are anticipated.

Potential Benefits

I cannot and do not guarantee or promise that you will receive any benefits from this study in form of money, free treatment, free medications or free transportation.

Confidentiality

If you indicate your willingness to participate in this study by signing this document, I plan to disclose the information only to my supervisor for verification reasons. Any information that is obtained in connection with this study that can be identified with you will remain confidential and will be disclosed only with your permission. Your name will not appear on the questionnaire. Instead there will be a code number known to the investigator only. Therefore no one will be able to link your name to the responses you give.

Additional Costs

There are no costs that you will incur by participating in this study.

In the Event of Injury

In the event of injury resulting from your participating in this study, treatment can be obtained at Chinhoyi District Hospital. You should understand that the costs of such treatment will be your responsibility. Financial compensation is not available.

Voluntary Participation

Participation in this study is voluntary. If you decide not to participate in this study, your decision will not affect your future relations with Chinhoyi Hospital, its personnel and associated hospitals. If you decide to participate you are free to withdraw your consent and to discontinue participation at any time without penalty.

Additional Elements

If you decide to withdraw, please let me know even during the interview and I will stop the interview. Your withdrawal will not interfere with the way you are treated at this clinic or any other clinic. You are free to withdraw if you feel the questions are getting uncomfortable

Offer to Answer Questions

Before you sign this form, please ask any questions on any aspect of this study that is unclear to you. You may take as much time as necessary to think it over.

Authorization

You are making a decision whether or not to participate in this study. Your Signature indicates that you have read and understood the information provided above, have had all your questions answered and have decided to participate.

…… ……..

Name of Research Participant (Please Print) Date

……... ……

Signature of Researcher Time Am/pm

……. ……

Signature of Researcher Date

You will be given a copy of this consent form to keep.

If you have any questions concerning this study or consent form beyond those answered by the researcher, including questions about the research, your rights as a research participants or research related injuries, or if you feel that you have been treated unfairly and would like to talk to someone other than me, please feel free to contact the Ethics Committee on (04) 731 000

APPENDIX A

DEMOGRAPHIC DATA INTERVIEW SCHEDULE

CODE ☐

I am going to ask you some question about yourself. Please answer to the best of your knowledge.

2) How old are you ☐ years

3) What is your marital status?

   a) Married ☐

   b) Widowed ☐

   c) Separated ☐

   d) Single ☐

   e) Co-habiting ☐

4) What is your level of education?

   a) Grade 7 ☐

   b) Form 2 ☐

   c) Form 4 ☐

   d) Form 6 ☐

   e) Tertiary ☐

5) What is your employment status?

   a) Employed ☐

   b) Self employed ☐

   c) Unemployed ☐

   d) Retired ☐

6) What is your income?

a) >$50 ☐

b) $50-200 ☐

c) $300-500 ☐

d) $600-1000 ☐

e) $1100-2000 ☐

7) Where do you reside?

a) Urban ☐

b) Peri-urban ☐

c) Plot ☐

d) Farm ☐

e) Communal ☐

8) Do you own the accommodation you live in?

a) Yes ☐

b) No ☐

9) Who do you live with?

a) Husband ☐

b) Parents ☐

c) In-laws ☐

d) Friends ☐

e) Alone ☐

10) What is your religion?

a) Apostolic ☐

b) Catholic ☐

c) Salvationist ☐

d) Adventist ☐

e) Traditionalist ☐

f) None ☐

11) Does your religion allow medical treatments?

a) Yes ☐

b) No ☐

12) What is your parity? ☐

13) How long have you been HIV positive?

a) Below 1 month ☐

b) 1-12 months ☐

c) 13-30 months ☐

d) 31-40 months ☐

e) 41-60 months ☐

f) Above 60 months ☐

APPENDIX B

HIV ANTENATAL SELF CARE PRACTICES QUESTIONNAIRE (HIVSCPQ)

I am going to ask you about your antenatal self care knowledge. Please answer to the best of your knowledge

To what extent do you agree with the following statements?

Statement	**Strongly disagree**	**Disagree**	**Uncertain**	**Strongly agree**	**Agree**
Self Care Practices on Early Booking Recommendations					
13. I booked my pregnancy at3-4 months (14-16 weeks)					
Self Care Practices on dietary Recommendations					
14. You currently take a minimum of three meals a day					
15. You take porridge with either peanut butter, margarine or cooking oils every morning for breakfast					
16. You take tea with milk and brown bread with either jam, margarine, eggs or meat every day for breakfast					
17. You are currently taking meals that contain unrefined foods, vegetables, fruits, oils and salts at least two times a day for lunch and supers.					
18. You take a minimum of six cups of clear fluids per day.					
Self Care Practices Regarding ARVs					
19. You take your ARVs, same dose and same time, same root every day.					

20. You do not miss any dose of my ARVs every day					
Self Care Practices Regarding Disclosure of HIV status					
21. You have disclosed your HIV status to your sexual partner					
Self Care Practices Regarding Exercise					
22.You exercise at least 3 times a day					
23. I rest at least 3-4hrs per day					
Self care practices regarding alcohol use					
24. You take alcohol during this pregnancy					
25. You find it difficult to stop drinking alcohol with this pregnancy					
Self care practices regarding Tobacco smoking					
26. You are currently smoking tobacco with this pregnancy					
27. You find it difficult to stop smoking with this pregnancy					
Self care practices regarding safe sex					
28. You are currently consistently using condoms each time I have sexual intercourse					

Total Practice Score = 64

APPENDIX C

HIV ANTENATAL SELF CARE KNOWLEDGE QUESTIONNAIRE (HIVSCKQ)

I am going to ask you about your antenatal self care knowledge. Please answer to the best of your knowledge

To what extent do you agree with the following statements?

Statement	Strongly disagree	Disagree	Uncertain	Strongly agree	Agree
Self care knowledge on early booking recommendations					
29. HIV positive pregnant women should book at 3-4 months (14-16 weeks)					
Self care knowledge on dietary recommendations					
30. You should be taking a minimum of three meals a day					
31. You should take porridge with either peanut butter, margarine or cooking oils every morning for breakfast					
32. You should take tea with milk and brown bread with either jam, margarine, eggs or meat every day for breakfast					
33. You should be taking meals that contain whole meal, vegetables, fruits, oils and salts at least 2 times a day for lunch and supers.					
34. You should be taking a minimum of six cups water per day.					

Self care knowledge regarding ARVs					
35. You should take your ARVs, same dose and same time, same root every day.					
36.You should not miss any dose of my ARVs every day					
Self care knowledge regarding disclosure of HIV status					
37. You should disclosure your HIV status to your sexual partner					
Self care knowledge regarding exercise					
38. You should exercise at least3 times a day					
39. You should rest at least 3-4hrs a day					
Self care knowledge regarding alcohol use					
40. You should avoid alcohol during this pregnancy					
41. You should not find it difficult to stop drinking alcohol with this pregnancy					
Self care knowledge regarding tobacco smoking					
42. You are currently avoiding smoking tobacco with this pregnancy.					
43. You should not find it difficult to stop smoking with this pregnancy					
Self care knowledge regarding safe sex					
44. HIV positive pregnant women should consistently use condoms each time they have sexual intercourse					

Total Practice Score = 64

Appendix D (d)

SHONA INFORMED CONSENT FORM

(GWARO REMVUMO)

MUSORO: TSVAGURUDZO MAERERANO NERUZIVO UYE MAZVIBATIRO ANOITA MADZIMAI AKAZVITAKURA UYE VANE UTACHIONA HWE HIV VANOONEKWA PACHIPATARA CHINHOYI MUDUNHU REMAKONDE

MUONGORORI: Caroline Chinyama

NHAMBA DZENHARE: 0772 750 065

TSANANGUDZO YETSVAKURUDZO:

Tsvakurudzo ino iri kuitwa kuzadzikisa zvidzidzo zvedhirii repamusoro rehukoti. Tsvakurudzo ichaitirwa paChipatara Chechinhoyi. Madzimai akazvitakura vane utachiona hweHIV ndivo vachapinda mutsvakurudzo ino. Pachadiwa vanhukadzi vanosvika makumi masere. Muchange muchibvunzwa mibvunzo muchipindura, mhinduro dzenyu dzonyorwa pasi.

KODZERO YENYU: Musati mapinda mutsvakurudzo ino, munofanirwa kuti munbzwisise donzvo, zvakanakira uye zvibinge zvakanangana netsvakurudzo ino.

CHINANGWA CHETSVAKURUDZO

Murikukumbirwa kuti mupinde mutswagurudzo yekutsvaga kuti vanhukadzi vakazvitakura vane utachiona hwe HIV vanoziva zvakadini uye vanozvibata zvakadini maererano nekuzvichengetedza. Chinangwa chetsvagurudzo iyi ndechekubuda neruzivo runozobatsira pakurapwa kwanamai vane nhumbu, vaine hwutachiona hweHIV..

Makasarudzwa semudzimai angangopinda mutsvagurudzo iyi nekuti mune hutachiona hweHIV ,muinepamuviri. Muri mumwe wemadzimai makumi masere (80) vachange vari mutsvagurudzo iyi.

ZVICHAITIKA MUTSVAKURUDZO

Kana mukange mafunga kupinda mutsvagurudzo iyi,muchabvunzwa mibvudzo kuchishandiswa gwaro remibvudzo yakanyorwa pasi rinotora chinguva chinoita makumi maviri kusvika pamakumi maviri nemashanu (20 - 25) emaminetsi.

NJODZI DZINGATARISIRWA

Izvi zvingangomkonzera kushungurudwa kwenyu kana kukonzera kunonotswa kuenda kumba nemaminetsi makumi matatu.

NJODZI KUMWANA ARI MUDUMBU

Zvakadaro,hazvitarisirwi kuti kungava nedambudziko guru kwamuri kana kumwana wamakatakura.

MUBAIRO

Zvakadaro,handikwanisi kukuvimbisai kuti kunozovapo nemubairo wemari, kurapwa kana kupiwa mishonga pachena kana kubatsirwa mumafambiro okuuya kana kuenda kumba kwenyu.

KUCHENGETEDZWA KWEZVAKAVANDIKA

Kana mukataridza kusununguka kwenyu kupinda mutsvagiridzo iyi nokunyora bvumo yenyu pagwaro iri, ini handizoudzi cheromumwe munhu zvake zvamunenge mataura kunze kwomudzidzisi wangu nechinangwa chehumboo hungangodiwa.Zvese zvamunenge mataura zvingangotaridza kuti ndimi mazvitaura zvichachengetedzwa,uye zvichataridzwa uyo wamunenge mapa bvumo yokuti ataridzwe.

MARI INGADIWA

Kana mukasarudza kupinda mutsvaguridzo iyi hamuna mari yakanangana netsvagurudzo iyi yamucharasikirwa nayo.

PAKANGE PAITIKA NJODZI

Pakange paine chakaipa chaitika nokuda kokuti mapinda mutsvagurudzo iyi, rubatsiro munogona kuruwana pachipatara cheChinhoyi. Hapana mari yamuchazobhadharwa pamusoro pechiitiko ichi.

SARUDZO YENYU PAKUPINDA MUTSVAKURUDZO

Kupinda mutsvagurudzo iyi isarudzo yenyu, hakubmanikidzwe. Kana mukasarudza kusapinda mutsvagurudzo iyi, hazvizokanganisi kurapwa kwenyu pachipatara cheShurugwi kunyange hukama hwenyu navarapi. Kana mukasarudza kupinda mutsvagurudzo iyi, munogona kuzobuda cheronguva pasina matanho anotorwa kwamuri.

ZVIMWEWO

Kana masarudza kubuda mutsvakurudzi ino, makasununguka kundiudza chero pakati pehurukuro. Ini ndinobva ndamisa hurukuro yedu. Kubuda kwenyu mutsvakurudzo hakuzokanganisa marapirwo nemabatorwo enyu pano kana kune rimwewo boka reveutano. Makasununguka kumisa hurukuro kana manzwa musisafare nemibvunzo yandinenge ndichikubvunzai.

MIBVUNZO YAMUNGANGE MUNAYO

Musati mapabvumo yenyu pagwaro rebvumo iri, makasununguka kubvunza mibvudzo maererano nepese pamungada kujekeserwa uye munogona kumbofungisisa pamusoro pokupinda kana kusapinda mutsvagurudzo iyi.

MVUMO

Pamurikufungisisa nezvekupinda kana kusapinda mutsvagurudzo,chingangotaridza kuti masarudza kupinda mutsvagurudzo kunyora bvumo yenyu pagwaro rebvumo.Kunyora uku kunotaridza kuti maverenga mukanzwisisa zvirimugwaro,mibvudzo yenyu yekunzwisisa zvirimugwaro ikapindurwa,naizvozvo masarudza kupinda mutsvagurudzo.

Zita Renyu Rakazara……Zuva……

Runyoro Rwenyu……..Zuva……...

Runyoro Rwangu……Zuva……

Muchapiwa rimwe regwaro rebvumo kuti muzvichengetere.

Kana muine mibvunzo iri kunze kweyatsanangurwa nearikuita tsvagurudzo iyi pamusoro petsvagurudzo kana kuti mibvunzo pamusoro pekodzero yenyu semunhu apinda mutsvagurudzo iyi uye kana muchinzwa kuti hamuna kubatwa zvakanaka mungangoda mumwe munhu wokutaura naye, makasununguka kubata vanoongorora nezvekodzero dzevanhu vanopinda muongororo panhamba dzerunhare dzinoti, (04) 731000.

Appendix E

Code ☐

Demographic interview schedule

1. Munemakore mangani ☐
2. Makaroorwa here?

   Hongu ☐

   Ndakafirwa ☐

   Ndakarambwa ☐

   Takasiyana ☐

   Ndineshamwari ☐
3. Makadzidza kusvika papi?

   Gwaro rechinomwe ☐

   Sekondari ☐

   Dzidzo yepamusoro ☐
4. Munoshanda here?

   Hongu ☐

   Ndinozviitira basa ramaoko ☐

   Handishandi ☐
5. Munotambira marii

   Iri pasi pemekumi mashanu ☐

   Makumi mashanu kusvika mazana maviri ☐

   Mazana matatu kusvika matanhatu ☐

   Mazana manomwe zvichikwira ☐

6. Munogara kupi?

   Mudhorobha ☐

   Mumusha wakapoteredza dhorobha ☐

   Papuroti ☐

   Papurazi ☐

   Pamusha ☐

7. Ndimi muridzi wepamunogara here?

   Hongu ☐

   Kwete ☐

8. Munogara nani?

   Nemurume wangu ☐

   Nevabereki vangu ☐

   Navamwene natezvara vangu ☐

   Neshamwari ☐

   Ndoga ☐

9. Munopinda svondo ipi?

   Yepositori ☐

   Katorike ☐

   Hondo yoruponeso ☐

   Savadha ☐

   Yechivanhu ☐

   Hapana ☐

10. Makaita pamuviri kangani muupenyu hwenyu? ☐

11. Munenguva yakareba sei muchirarama neHIV?

Ndichangobatwa hutachiona ☐

Mwedzi mumwe kusvika pagumi nemiviri ☐

Mwedzi gumi nemitatu kusvika pamakumi matatu ☐

Makumi matatu nemumwe kusvika pama kumi mana ☐

Makumi maa nemumwe kusvika pamakumi matanhatu ☐

Kudarika makumi matanhatu ☐

APPENDIX F

CODE

Mibvunzo ye:

Tsika dzevanorarama neHIV panguva yekuzvitakura. Tinobvunzana nekupindurana takatarisana.

Ndichakubvunzai nezvetsika dzamunoita kuzvichengetedza utano hwepamuviri panguva yekuzvitakura. Ndinokumbira kuti mundipindurewo sekuziva kwenyu.

Munotenderana zvakadii nemibvunzo inotevera?

Tsika dzekuzvichengetedza kwevanorarama neHIV, panguva yekuzvitakura kwavo.

Mubvunzo	Handitenderane nazvo zvachose	Kwete	Handizivi	Ndizvozvo chaizvo	Hongu
Tsika dzinokurudzirwa maringe nekunyoresa pamuviri					
13. Makanyoresa pamuviri penyu nemwedzi mitatu.					
Tsika dzekudya kunokurudzirwa pakuzvitakura					
14. Munodya zvakakwana katatu pazuva					
15. Munodya bota rinedovi kana mafuta mangwanani ega ega					
16. Munowana svutu gadzike nechingwa chine jamu, majarina, dovi, nyama kana mazai mangwanani ega ega?					
17. Munodya upfu usina kutsetswa, miriwo, michero, mafuta, munyu masikati nemanheru ega ega.					
18. Munonwa mikombe mitanhatu yemvura pazuva roga roga.					

Tsika dzinokurudzirwa pakunwa maARVs					
19. Munonwa maARVs enyu nguva imwe akakwana mazuva ose.					
20. Hamudariki kunwa maARVs enyu mazuva ose.					
Tsika dzinokurudzirwa pakududzira murume wenyu kuti mune HIV					
21. Makaudza murume wenyu kuti muneHIV					
Tsika dziokurudzirwa kuti mugare makasimba pakuzvitakura					
22. Munoita zvinosimbisa muviri katatu pazuva.					
23. Munozorora zvidimbu zvitatu kana zvina pazuva rega rega.					
Tsika dzinokurudzirwa padoro panguva yekuzvitakura					
24. Hamumwi doro makazvitakura					
25. Zvakakuomerai kurega doro nepamuviri pamunapo.					
Tsika dzinokurudzirwa pafodya makazvitakura					
26. Hamusvuti fodya makazvitakura					
27. Zvakakuomerai kurega fodya nepamuviri pamunapo.					
Tsika dziokurudzirwa pabonde paguva yekuzvitakura					
28. Murikushandisa condom nguva dzose dzamunosangana pabonde nemurume					

Zvibodzwa = 64

APPENDIX G

Tsika dzevanorarama neHIV panguva yekuzvitakura. Tinobvunzana nekupindurana takatarisana.

Ndichakubvunzai ezveruzivo rwenyu maererano neHIV panguva yekuzvitakura kwenyu. Ndinokumbira kuti mundipindurewo sekuziva kwenyu.

Munotenderana zvakadii nemibvunzo inotevera?

Mubvunzo	Handitenderane nazvo zvachose	Kwete	Handizivi	Ndizvozvo chaizvo	Hongu
Ruzivo rwekunyoresa pamuviri					
29. Munofanira kunyoresa pamuviri penyu nemwedzi mitatu.					
Ruzivo rwekudya kunokurudzirwa pakuzvitakura					
30. Munofanira kudya zvakakwana katatu pazuva					
31.Munofanira kudya bota rinedovi kana mafuta mangwanani ega ega					
32. Munofanira kunwa svutu gadzike nechingwa chine jamu, majarina, dovi, nyama kana mazai mangwanani ega ega					
33.Munofanira kudya upfu usina kutsetswa, miriwo, michero, mafuta, munyu masikati nemanheru ega ega.					
34. Munofanira kunwa mikombe mitanhatu yemvura pazuva roga roga					
35. Munofanira kunwa maARVs enyu nguva imwe akakwana mazuva ose.					
36. Hamufaniri kusanwa maARVs enyu mazuva ose.					
Ruzivo rwekubudira murume kuti mune HIV					

35. Munofanira kubudira murume wenyu kuti mune HIV					
Ruzivo rwezvinokurudzirwa kuti mugare makasimba pakuzvitakura					
36.Munofanira kuita zvinosimbisa muviri katatu pazuva.					
37. Munofanira kuzorora zvidimbu zvitatu kana zvina pazuva rega rega					
Ruzivo rwunokurudzirwa padoro mukuzvitakura					
38. Hamufaniri kunwa doro makazvitakura					
39. Zvakakuomerai Kurega doro nepamuviri pamunapo.					
Ruzivo rwunokurudzirwa pafodya mukuzvitakura					
40. Hamufaniri kusvuta fodya makazvitakura					
41. Zvakakuomerai kurega fodya nepamuviri pamunapo.					
Ruzivo rwunokurudzirwa pabonde mukuzvitakura					
42.Munofanira kushandisa condom nguva dzose dzamunosangana nemurume pabonde					

Zvibodzwa = 64

APPENDIX H

PLEASE COMPLETE THIS FORM TOGETHER WITH YOUR APPLICATION

APPLICATION FOR RESEARCH AT CHINHOYI PROVINCIAL HOSPITAL

Name of applicant: Caroline Esther Chinyama

Address of applicant: 51 Corydon Road Orange Grove Chinhoyi

Name of institution: Chinhoyi Provincial Hospital

Project proposal: The relationship between HIV antenatal self care knowledge and HIV antenatal self care practice among HIV positive women aged 18-40yearsat Chinhoyi Provincial Hospital.

Objectives:

The following objectives will guide the study

4. To determine HIV antenatal self care knowledge among HIV positive pregnant women aged 18-40 years at Chinhoyi Provincial Hospital
5. To establish HIV antenatal self care practices among HIV positive pregnant women aged 18-40 years at Chinhoyi Provincial Hospital.
6. To examine the relationship between HIV antenatal self care knowledge and HIV antenatal self care practices among HIV positive women aged 18-40 years at Chinhoyi Provincial Hospital

Methodology: A descriptive correlation design will be used in this study. The intent of the design is examine the relationship between HIV antenatal self care knowledge ad HIV antenatal self care practices among HIV positive women aged 18-40years at Chinhoyi Provincial Hospital.

Timetable: Interviews will start at 0800hrs to 1600hrs from 30-07-12 to 12-09-12 at Chinhoyi Provincial Hospital. Studies will be conducted only on Monday to Friday.

Patient inclusion: HIV positive pregnant women aged 18-40years with an educational background of grade 7and above capable to speak Shona and English well, and willing to participate in the study will be included.

Use of results: To act as a springboard of further studies in the profession. To be utilized in midwifery.

References: **PNO Mash West**

TIC Chinhoyi School of Nursing

I promise to forward the conclusions of the study to the Provincial Medical Director

Name: **Caroline E. Chinyama** Signature**…….**

MEDICAL SUPERINTENDED PERMISSION

1. **Consultant**

   Name: ……

   Agree Do not agree

2. **Ward Manager**

   Name: ……

   Agree Do not agree

APPENDIX H

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I promise to forward the conclusions of the study to the Provincial Medical Director

Name: **Caroline E. Chinyama** Signature**…….**

DMO MAKONDE

1. **Consultant**

   Name: ……

   Agree Do not agree

2. **Ward Manager**

   Name: ……

   Agree Do not agree

APPENDIX H

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References: **PNO Mash West**

TIC Chinhoyi School of Nursing

I promise to forward the conclusions of the study to the Provincial Medical Director

Name: **Caroline E. Chinyama** Signature**…….**

P M D

Name: ……

Agree Do not agree

Ward Manager

Name: ……

Agree Do not agree

APPENDIX H

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Address of applicant: 51 Corydon Road Orange Grove Chinhoyi

Name of institution: Chinhoyi Provincial Hospital

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References: **PNO Mash West**

TIC Chinhoyi School of Nursing

I promise to forward the conclusions of the study to the Provincial Medical Director

Name: **Caroline E. Chinyama** Signature**…….**

S.I.C F.H.C

1. **Consultant**

   Name: ……

   Agree Do not agree

2. **Ward Manager**

   Name: ……

   Agree Do not agree